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Republic of Moldova

Health system review

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Republic of Moldova:

Health System Review 2012

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Preface

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

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

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

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

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

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

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

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

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The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Ireland, the Netherlands, Norway, Slovenia, Spain, Sweden and the Veneto Region of Italy, the European Commission, the European Investment Bank, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine. The Observatory team working on 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

AIDS	Acquired immunodeficiency syndrome
CIS	Commonwealth of Independent States
CMHC	Community mental health centre
DPT	Combined vaccination for diphtheria, pertussis and tetanus
DRG	Diagnosis-related group
EU	European Union
GDP	Gross domestic product
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GNP	Gross national product
HIV	Human immunodeficiency virus
IMF	International Monetary Fund
MHI	Mandatory health insurance
NCPH	National Centre of Public Health
NGO	Nongovernmental organization
NHIC	National Health Insurance Company (*Compania Națională de Asigurări în Medicină*)
OECD	Organisation for Economic Co-operation and Development
OOP	Out-of-pocket payments
PAS	Centre for Health Policies and Studies (*Central pentru Politici şi Analize în Sănătate*)
PPP	Public–private partnership
SSPHS	State Surveillance of Public Health Service
STI	Sexually transmitted infection
TB	Tuberculosis
UNICEF	United Nations Children's Fund
VAT	Value added tax
VHI	Voluntary health insurance
WHO	World Health Organization

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Abstract

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

The reform of health financing in the Republic of Moldova began in earnest in 2004 with the introduction of a mandatory health insurance (MHI) system. Since then, MHI has become a sustainable financing mechanism that has improved the technical and allocative efficiency of the system as well as overall transparency. This has helped to further consolidate the prioritization of primary care in the system, which has been bas ed on a family medicine model since the 1990s. Hospital stock in the country has been reduced since independence as the country inherited a Semashko health system with excessive infrastructure, but there is still room for efficiency gains, particularly through the consolidation of specialist services in the capital city. The rationalization of duplicated specialized services, therefore, remains a key challenge facing the Moldovan health system. Other challenges include health workforce shortages (particularly in rural areas) and improving equity in financing and access to care by reducing out-of-pocket (OOP) payments. OOP spending on health is dominated by the cost of pharmaceuticals and this is currently a core focus of reform efforts.

Executive summary

Introduction

The Republic of Moldova became independent in 1991 with the dissolution of the Soviet Union. Since then the country has become a parliamentary republic and has embarked on an ambitious programme of economic reform. Agriculture and food processing dominate the economy and the country is dependent on imports for its energy needs. Economic transition caused great socioeconomic hardship in the country and the health status of the population fell. Subsequent economic growth was pro-poor, and life expectancy regained its pre-independence level, but it is still low relative to other countries of the WHO European Region and mortality rates are particularly high for the working-age population.

The Republic of Moldova is experiencing negative population growth as the birth rate is falling and following independence there was a steep rise in the death rate plus large-scale labour migration, with about 40% of the economically active population working abroad. These trends have strengthened since the global economic downturn began. While remittances account for over a quarter of gross domestic product (GDP) and have boosted the economy, they have also boosted inflation, and the social impact of such large-scale labour migration is cause for concern.

Coronary heart disease and cancer predominate as the main causes of death in the Republic of Moldova for both men and women, and many of these deaths can be attributed to very heavy alcohol and tobacco consumption among both men and women. In 2010, 57.6% of total male mortality and 62.3% of female mortality could be attributed to smoking-related causes, while 18.8% of male mortality and 13.7% of female mortality were related to alcohol consumption. Tuberculosis (TB), and particularly the increasing number of patients with multidrug-resistant TB, is also a very significant public health issue in the country, with an estimated incidence rate of 182 per 100 000 population in 2010.

Organization and governance

The health system of the Republic of Moldova is organized according to the principles of universal access to basic health services and equity and solidarity in health care financing; it is funded from both the state and individuals through MHI. The health system includes a mix of public and private medical facilities, as well as public agencies and authorities involved in the provision, financing, regulation and administration of health services.

Public medical facilities at primary and secondary levels provide services to the community and belong to local public authorities. In every district, there are also providers of emergency care (ambulance services) belonging to the Ministry of Health. Medical facilities at the tertiary level provide specialized and highly specialized medical care for the whole population; almost all of these tertiary facilities are located in Chisinau and belong to the Ministry of Health. Public medical facilities are autonomous self-financing non-profit-making organizations that are directly contracted by the National Health Insurance Company (NHIC; *Compania Națională de Asigurări în Medicină*) for the provision of medical services under MHI.

Some health services are provided by the private sector, and private health care providers can be contracted by the NHIC. A significant number of parallel health care services are also provided through public medical institutions belonging to other branches of government, which are financed from the state budget through the respective ministries but can also contract with the NHIC.

Institutions with regulatory functions, such as licensing, supporting the development of health policies or conducting public health surveillance, are financed from the state budget through the Ministry of Health to which they are subordinate. Regulatory functions are thus centralized in the Ministry of Health rather than being the responsibility of independent bodies. Through these institutions, the Ministry of Health collects and analyses data and generates relevant information to contribute to the development of evidence-based policies. The Ministry of Health addresses the major challenges in the health sector and promotes the principle of Health in All Policies through multi- and intersectoral collaboration, including the coordination of public health activities within the sector and beyond it. This has meant greater transparency in health policy-making and more patient influence in policy-making through the involvement of nongovernmental organizations (NGOs) representing patients rights and interests in the development process.

Financing

Since 2004, health financing in the Republic of Moldova has been organized as MHI. Total health expenditure in 2010 was 11.7% of GDP. Based on revenue source, 40.3% of total health expenditure was from MHI contributions and 44.9% from OOP payments (World Health Organization, 2012). The relatively high level of total health expenditure as well as the balance of prepaid and OOP payments have been maintained despite the ongoing global financial crisis. Contributions from the working population come predominantly through payroll contributions of a fixed percentage of salary (7% in 2011 and 2012: 3.5% to be paid by the employee and 3.5% to be paid by the employer); the self-employed are expected to purchase their own cover for the year at a fixed price. The non-working population (14 categories including pensioners, students, children, registered unemployed, etc.) is covered through transfers from the central budget to the NHIC, which is the pooling agency for prepaid health care funding. Voluntary health insurance (VHI) accounted for less than 0.1% of total health expenditure in 2010. The NHIC is also the sole purchaser of health services, which has enabled a purchaser–provider split, and payments for services are made on the basis of contracts, most of which are prospective.

Access to emergency and primary care is universal regardless of insurance status and so are services connected to key public health issues such as HIV infection and AIDS, TB and immunization. The package of benefits available under MHI covers specialized outpatient and hospital care and a very limited range of pharmaceuticals. For those without insurance cover, these services are paid in full as OOP payments. OOP payments are made up of informal payments and direct fee-for-service payments; there are no official user fees or co-payments for services covered under MHI, although there is a sliding scale of co-payments for any pharmaceuticals covered. Informal payments occur at almost all levels of the system, but they are much more widespread for inpatient care; the seriousness of the illness is reflected in the amount patients pay informally for care. The Ministry of Health is committed to reducing informal payments in the system and it is hoped that increasing the salaries of health care workers as well as adding performance-related payment mechanisms, together with improvements in transparency through external auditing, will help to achieve this aim.

Combining payroll and budget contributions in a single pool has helped to build equality and solidarity into the system. However, universal coverage has not been achieved; as is always the case with insurance-based systems, there is an explicitly uninsured population (20.3% of the resident population

was uninsured in 2011). Those without insurance are most often self-employed agricultural workers or those in informal employment in urban areas; the uninsured often also have low incomes. From 2010, households registered as being below the poverty line automatically receive MHI cover. However, this may not drastically improve equity in the system as 73.1% of all OOP payments in 2010 were for pharmaceuticals, and the list of medicines that can be reimbursed through MHI is extremely limited in order to maintain the financial sustainability of the MHI system.

Physical and human resources

The Republic of Moldova inherited an extensive Semashko-style health system with numerous facilities and health care personnel. Infrastructure has been significantly reduced but there is still an oversupply of beds and hospitals in the capital Chisinau. The continued existence of many facilities in parallel health systems under government structures other than the Ministry of Health has also been a challenge to the rationalization of hospital stock. There has been only limited capital investment in secondary and tertiary care provision and most improvements have been only cosmetic. High-technology equipment is available in the capital but the everyday low-technology medical equipment in use is now quite old, particularly in the district hospitals. More capital investment has taken place in primary care, particularly at the health centre level. Information technology is developing, but it is fragmented and uncoordinated.

There is one medical university in the Republic of Moldova (the State University of Medicine and Pharmacy "Nicolae Testemitanu" in Chisinau) and there are five nursing colleges across the country. The curriculum has been constantly updated and changed to move closer to EU standards; although clinical qualifications are not yet recognized internationally, this is the aim. Doctors are not registered and the Soviet system of attestation is still used whereby a doctor has to pass examinations and accumulate sufficient experience to progress through second, first and superior qualification categories.

Until recently, strategic planning of human resources has not been a priority, particularly immediately after independence, as so many doctors and nurses had been inherited from the Semashko system. However, professional mobility has meant that many doctors and nurses have left medicine, and often the country, in search of better pay and conditions. This has led to deficits in certain areas, and planning for human resources is, therefore, now one of the most pressing issues in the health system. There are now shortages of health care

personnel. The lack of human resources in rural areas impacts on access to services for remote rural populations; however, the problem of shortages is not just related to the absolute number of doctors but also their profile.

Provision of services

In 2010, radical reform of public health began in the Republic of Moldova in order to transform the inherited sanitary-epidemiological services into a broader public health service that was better equipped to deal with the current epidemiological profile of the Moldovan population. The new State Surveillance of Public Health Service (SSPHS) has retained the communicable disease control functions but more emphasis has been placed on noncommunicable disease control, health promotion and disease prevention. The basic structures are now in place, but full implementation will be a long-term project. Other ongoing public health initiatives in the Ministry of Health include national programmes on immunization, TB, HIV, sexually transmitted infections (STIs) and tobacco control, the last as part of efforts to implement the WHO Framework Convention on Tobacco Control. A national alcohol control programme was approved in June 2012.

The Republic of Moldova has had significant success in reorienting the health system towards primary care, and the primary care system functions wholly on a family medicine basis. In rural areas, primary care services are provided by family doctor offices and health centres while in urban areas, services are provided through big family health centres (formerly the polyclinics). All doctors working at the primary care level practise family medicine and narrow specialists who previously worked in the polyclinics are now attached to hospitals, even if they still work in the same building alongside family doctors. The way in which services are purchased through the MHI system means that family doctors act as genuine gatekeepers to specialist and inpatient services for insured patients. Inpatient care is provided at the municipal and district (secondary care), and republican (tertiary care) levels. Highly specialized tertiary services are concentrated in Chisinau. Most hospital beds are for acute care rather than long-term care. Palliative, long-term and rehabilitation care are not sufficiently developed as parts of the health system, which affects the system's overall efficiency. Most long-term care is provided in the family, and there are few resources available for informal carers.

The pharmaceutical supply network was almost entirely privatized in the early 1990s and, although there is an oversupply of pharmacies in urban areas, there is a shortage in rural areas that has implications for access of rural populations to essential medicines. Access to medicines has been gradually improving, but problems remain. Almost all pharmaceuticals can be bought over the counter, including prescription medicines, which has serious health implications. The burden of OOP expenditure for outpatient pharmaceuticals is very significant as so few are covered under the MHI benefits package.

Principal health care reforms

The National Health Policy for 2007–2021 and the Health System Development Strategy for 2008–2017 have served as the main guiding documents for subsequent reform initiatives in the Moldovan health system – even though there have been three changes of government since that time. This stability has allowed policy-makers to build on the successes of previous reforms while tackling outstanding issues, albeit against a background of severe financial constraints. The overall aims of these documents have been to reduce health inequalities for all social groups as well as to consolidate improvements of the health system and intersectoral working to strengthen population health. The full potential of intersectoral working has not yet been realized, but the national programmes on tobacco and alcohol control introduced in 2012 are strong evidence that such intersectorality is a genuine new feature of health policy development.

To improve equity in the system, amendments to the Law on Mandatory Health Insurance in 2009 and 2010 sought to expand access to services by making access to primary care universal and to increase the financial protection of vulnerable households by extending automatic MHI cover to families registered as living below the poverty line even if they are formally "self-employed".

Major changes to pharmaceutical pricing and procurement policies have sought to improve access to pharmaceuticals by introducing reference pricing to ensure pharmaceuticals are not more expensive in the Republic of Moldova than in neighbouring countries and by centralizing procurement of essential medicines for public health facilities. The latter is important not only to optimize purchasing power but also to ensure that the supply of medicines is sufficient; otherwise inpatients would have to pay out of pocket to obtain drugs that should be covered under MHI.

Most reforms of the Moldovan health system have sought to reorganize the inherited Semashko system and adapt it to the new conditions and the new social, economic and health demands it faces. The key task has been to improve the efficiency of facilities and the way they are financed. However, changing the mentality of those working in the system as well as service users (who are often resistant to change) is a much greater task. This has an impact on developing new regulatory mechanisms as the Soviet way of working with regulation does not fit with the current socioeconomic reality, and many of the regulations still in use pre-date independence. New levers are needed as well as new skills in negotiating the market and ways of working with commercial interests. Different reform initiatives have faced varying levels of political support or resistance – particularly with optimization of the health system as this involves rationalization of the hospital network, which is politically very challenging irrespective of the party in power.

Assessment of the health system

The stated objectives of the health system are the continuous improvement of population health, financial risk protection, equity in the use and distribution of health services, greater user satisfaction and improved efficiency and population health regardless of resource constraints. Population health has been improving in the Republic of Moldova since 2000 in basic terms, but it is hard to disentangle how much of this improvement may be attributed specifically to the health system. Improvements in communicable disease control – for vaccine-preventable diseases – are the most visible. The impact of the health system on the control of noncommunicable diseases is less clear at present.

Potentially, the changes that will have the greatest impact on financial risk protection since the introduction of MHI in 2004 are the move to make access to primary care a universal benefit and extending automatic MHI cover to uninsured members of households that are registered as below the poverty threshold. However, equity in financing has not been achieved as the level of OOP spending has remained very high as a proportion of total health expenditure. The shortage of medical workers in rural areas and the high cost of pharmaceuticals in the Republic of Moldova pose serious challenges to equity in the use and distribution of health services as well as technical efficiency. High OOP costs are also a significant source of patient dissatisfaction with the health sector. However, the implementation of MHI has continued to give greater potential for improvements in both technical and allocative efficiency in the health system despite a very challenging fiscal environment.

1. Introduction

1.1 Geography and sociodemography

The Republic of Moldova is a landlocked country situated in south-eastern Europe. Ukraine and Romania border the country to the east and west, respectively (Fig. 1.1). It covers 33 850 km^2, approximately 80% of which is dedicated to arable land for crops and pasture on account of the country's rich soil. The Republic of Moldova is one of the more densely populated countries of the former Soviet Union (106/km^2), with a population of approximately 4.2 million, 790 000 of whom live in the capital city of Chisinau. Approximately 53% of the population live in rural areas (Table 1.1); agricultural and food-processing activities dominate the economy. There has been uninterrupted net migration out of the country since independence and the Republic of Moldova has experienced negative population growth since the mid-1990s; the population aged 0–14 years has been declining through the low birth rate while emigration has adversely affected the size of the working-age population (Table 1.1). At independence, the population of the Republic of Moldova was 4.36 million; however, by 2010 it fell to 3.57 million, plus an estimated 0.6 million living in Transnistria (WHO Regional Office for Europe, 2012b). Basic demographic and health data for Transnistria have not been available since 1997.

The Republic of Moldova is a multiethnic country, with Moldovans constituting the largest ethnic group (78.2%) followed by Ukrainians (8.4%) and Russians (5.8%). Other minority ethnic groups include Gagauz (a Turkic Christian group), who are concentrated in the south-west of the country, as well as Jewish, Bulgarian, Roma and many others. The majority of the population is Orthodox Christian. The official language is Moldovan, which is the same as Romanian, and has been written using Latin script in most of the country since 1991, but with Cyrillic script in Transnistria.

Fig. 1.1
Map of the Republic of Moldova

Source: United Nations, 2008.

Table 1.1
Trends in population/demographic indicators, 1995–2010 (selected years)

	1995	2000	2005	2006	2007	2008	2009	2010
Population, total (millions)	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Population, female (% of total)	52.2	52.3	52.5	52.5	52.5	52.5	52.5	52.6
Population aged 0–14 years (% of total)	26.6	23.7	19.0	18.2	17.7	17.2	16.9	16.7
Population aged 65 years and older (% of total)	9.0	10.0	11.2	11.3	11.3	11.2	11.2	11.2
Population growth (annual %)	–0.5	–0.2	–0.2	–0.3	–0.2	–0.2	–0.1	–0.1
Population density (per km^2)	128	127	125	125	125	124	124	124
Fertility rate, total (births/woman)	1.9	1.6	1.5	1.5	1.5	1.5	1.5	1.5
Birth rate, crude (per 1 000 population)	13.7	11.8	11.8	12.0	12.1	12.2	12.3	12.3
Death rate, crude (per 1 000 population)	11.4	12.1	13.1	13.3	13.4	13.4	13.4	13.4
Age dependency ratio[a]	55.3	50.8	43.3	41.9	40.7	39.7	39.0	38.5
Urban population (% of total)	46.3	44.6	42.6	42.3	42.0	41.8	41.5	41.2
Rural population (% of total)	53.7	55.4	57.4	57.7	58.0	58.2	58.5	58.8

Source: World Bank, 2012b.
Note: [a]The age dependency ratio is the ratio of the combined child population (aged 0–14) and the elderly population (aged 65+) to the working age population (aged 15–64).

1.2 Economic context

Since independence, the Republic of Moldova has faced serious economic challenges that have impacted on the funding available for health and other social welfare activities. Despite an ambitious economic liberalization and stabilization programme started at independence, external and internal economic difficulties have caused serious falls in the standard of living. Between 1993 and 1999, GDP fell by 60% (World Bank, 2004). Economic decline translated into falling standards of living through three main mechanisms: the erosion of liquid assets through inflation; the sharp fall in real wages and employment opportunities; and the near collapse of the public social security system, including the pension system (Orlova & Ronnas, 1999). Economic growth resumed only in 2000 after a decade of decline in GDP, a recovery that was much later than in other countries of the former Soviet Union and central and eastern Europe.

The Republic of Moldova was a small and highly integrated part of the Soviet economy, so when the Soviet Union was dissolved in 1991, the country was left completely dependent on imports for its energy needs. The collapse of

the integrated planning system meant that the manufacturing industry, mainly located in Transnistria, largely ground to a halt. Through the transition period, the Moldovan economy suffered persistent budget deficits as the tax base contracted while social spending remained high. However, servicing national debts, particularly energy debts to Russian companies, also accounts for much budgetary expenditure as the Republic of Moldova has no natural energy resources of its own. The Republic of Moldova was one of the most heavily indebted countries of the former Soviet Union. Debt servicing through the late 1990s was especially hard as the trade deficit grew and this had to be covered by dipping into foreign currency reserves and accepting commercial loans on far from favourable terms (Orlova & Ronnas, 1999). However, currently the overall risk of debt distress is considered to be low as cumulative public debt is now manageable and is projected to decline (Shishkin & Jowett, 2012).

Agriculture, food processing and viticulture are core aspects of the Moldovan economy, but large-scale labour emigration and the associated remittance flows increasingly shape the economic and social landscape (Atun et al., 2008). Moldovans working abroad work predominantly in countries of the Commonwealth of Independent States (CIS), particularly the Russian Federation and Ukraine, but many have also gone to work in Italy and Romania (World Bank, 2011a). Dual citizenship with Romania has been legal since 2003, which has given Moldovans greater migration opportunities. Economic growth between 2000 and 2008 was driven by remittances from Moldovans working abroad, and these remittances accounted for 30% of GDP in 2008 (World Bank, 2011b). Remittances have fallen since the global economic crisis began, but, nevertheless, it was estimated that remittances would equal US$ 1316 million for 2010 (World Bank, 2011a). However, while remittances have boosted private consumption and the building sector, value added by agriculture and industry have collapsed (Table 1.2). Economic growth since 2000 has, therefore, been "jobless" and domestic unemployment remains high, which is one of the main reasons why 40% of the Moldovan workforce lives and works abroad (World Bank, 2011b). Inflation was also brought under control, and economic growth was only interrupted by the global financial crisis: GDP in 2009 fell by 6% in real terms but bounced back in 2010. However, the government is currently attempting to reduce the size of the government budget relative to the size of the overall economy with a view to encouraging economic growth. In 2009, government spending as a proportion of GDP was 45.2%, but it is projected to fall to 38% by 2014, which has clear implications for the state funding of the health system (Shishkin & Jowett, 2012).

Table 1.2
Macroeconomic indicators, 1995–2010 (selected years)

	1995	2000	2005	2006	2007	2008	2009	2010
GDP (current US$, millions)	1 753	1 288	2 988	3 408	4 402	6 055	5 439	5 809
GDP (PPP current international $, millions)	5 525	5 346	8 492	9 187	9 748	10 733	10 274	11 077
GDP per capita (current US$)	477	354	831	951	1 231	1 696	1 526	1 631
GDP per capita (PPP current international $)	1 503	1 469	2 362	2 562	2 725	3 007	2 882	3 110
GDP growth (annual %)	–1.4	2.1	7.5	4.8	3.1	7.8	–6.0	6.9
Cash surplus/deficit (% of GDP)	n/a	–1.5	1.8	0.2	–0.3	–0.4	–5.9	2.6
Tax revenue (% of GDP)	n/a	14.7	18.5	19.6	20.6	20.4	17.7	18.2
Central government debt, total (% of GDP)	37.6	73.0	32.4	29.2	23.2	18.4	24.2	26.3
Industry, value added (% of GDP)	32.2	21.7	16.3	15.6	14.8	14.3	13.1	13.2
Agriculture, value added (% of GDP)	33.0	29.0	19.5	17.4	12.0	10.7	10.1	14.3
Services, value added (% of GDP)	34.8	49.2	64.1	67.0	73.2	75.0	76.8	72.5
Labour force, total (millions)	1.7	1.6	1.4	1.4	1.3	1.3	1.3	1.2
Unemployment, total (% of total labour force)	n/a	8.5	7.3	7.4	5.1	4.0	6.4	n/a
Poverty headcount ratio at national poverty line (% of population)	n/a	n/a	29.0	30.2	25.8	26.4	26.3	21.9
Gini coefficient[a]	n/a	n/a	36.3	36.1	35.3	35.3	34.0	33.0
Real interest rate (%)	n/a	5.1	9.1	4.1	2.6	10.8	18.0	4.7
Official exchange rate (local currency unit per US$, period average)	4.5	12.4	12.6	13.1	12.1	10.4	11.1	12.4

Source: World Bank, 2012b.
Notes: n/a: Not available; PPP: Purchasing power parity; [a]The Gini coefficient is a measure of absolute income inequality. The coefficient is a number between 0 and 1, where 0 corresponds with perfect equality (where everyone has the same income) and 1 corresponds with perfect inequality (where one person has all the income, and everyone else has zero income).

1.3 Political context

The Republic of Moldova was established as an independent state in 1991 following the dissolution of the Soviet Union. It is governed by the Constitution, which was approved on 29 July 1994 and replaced the old Soviet Constitution of 1979. It became a parliamentary republic in 2000. The head of state is the president, chosen by the parliament once every four years. The prime minister is nominated by the president and approved by the parliament, and is the head of government. The parliament is unicameral and has 101 seats. Members of parliament are elected by a popular vote for four-year terms of office. As

the Republic of Moldova is a parliamentary republic, presidential powers are limited by parliament, while the powers of both parliament and the president are constrained by the independent Constitutional Court.

Following independence, the country was ruled by the Agrarian Party, with Mircea Snegur as President, until 1996. From 1996 to 2001, the Alliance of Centrist Democrats was in power, with the Moldovan Communist Party winning 70% of parliamentary seats in 2001 and holding a reduced majority of 56% in the 2005 parliamentary elections (Way, 2002, 2005). Vladimir Voronin, leader of the Moldovan Communist Party, was elected to the presidency in February 2001 and was re-elected for this position in 2005. However, parliamentary elections in April 2009 precipitated riots and political crisis as they were inconclusive; although the Communist Party won the most votes, no party was able to form a majority government and elect a president. Subsequent "snap" parliamentary elections in July 2009 saw the Communist Party lose their lead in the polls, and while these elections were deemed broadly free and fair, they did not provide either the Communist Party or the Alliance for European Integration coalition the majority necessary to select a president. A referendum to change to a system where the president would be elected by popular vote foundered in September 2010 as it failed to reach the necessary 33% turnout. After two unsuccessful attempts to elect a new president, new parliamentary elections were called for November 2010, the results of which again gave the Alliance for European Integration the largest number of seats, but not enough to elect a president. The political stalemate and constitutional crisis continued for a long time, which greatly complicated the policy-making environment; however, in March 2012 Nicolae Timofti was finally elected as President with the backing of the Alliance for European Integration in coalition with socialist parliamentarians.

Until 1998, the Republic of Moldova was divided into 40 districts and 10 towns for administrative purposes. In 1999, the administrative arrangements were reorganized. Twelve administrative regions were established: 10 counties (*judets*), the metropolitan area of Chisinau and the Territorial Autonomous Unit of Gagauzia (Gagauz-Yeri), each with a regional administration and civil servants. Special autonomy status was granted to the Gagauz region in 1994, and Gagauz-Yeri now has power over its own political, economic and cultural affairs. However, with the passing in March 2003 of the Law Regarding the Local Public Administration (No. 123-XV), Moldova was reorganized once more, this time into 32 local districts (*rayons*), three municipalities and two territorial autonomous units. Local governments have tax-raising powers, but the funding of health services has been recentralized through the NHIC (see section 2.4). Laws relating to health care are enacted both by primary legislation

after parliamentary discussion and by decree, but the process is negotiated between parliament and the Ministry of Health. The other key interest groups integrated into the health policy process are the various international partners active in the Moldovan health sector (see section 2.3).

Since the Republic of Moldova claimed independence, there has been civil strife in Transnistria, which sought to maintain its links with the Soviet Union and then the Russian Federation and declared independence from Moldova shortly after the country seceded from the Union (King, 2000). In 1992, there was armed conflict in Transnistria between the Moldovan army and Soviet army troops based there. This conflict has not yet been resolved, and although the self-proclaimed Transnistrian Moldovan Republic has never been recognized internally or internationally as an independent state, it currently has its own parliament, president, constitution, economic system and currency (Roper, 2005; Protsyk, 2006). The region remains effectively outside central government control, and its status is still being negotiated. The demographic and health data available are scarce, but it would seem that the region has maintained a largely unreformed Semashko-style health system for the local population of approximately 0.6 million inhabitants (see section 5.14).

The Republic of Moldova joined the CIS in 1991, and has been a member of the United Nations since 1992. The Republic of Moldova was one of the first post-Soviet states to join the Council of Europe and the Organization for Security and Co-operation in Europe; it is also in the World Trade Organization and the Stability Pact for South Eastern Europe. The Republic of Moldova has been proclaimed a permanently neutral country that will not permit the stationing of foreign military troops on its territory, so it will not be seeking membership of the North Atlantic Treaty Organization. The Republic of Moldova is signatory to various international treaties that have an impact on health, including the United Nations *Convention on the Rights of the Child* (signed 1993) and the European *Convention on Human Rights* (signed 1995). Compliance with the United Nations Convention on the Rights of the Child has been positive in terms of the legislative framework in place, but the key barriers to successful realization of the convention include the high rates of poverty and emigration, which have a great impact on the well-being of children (United Nations, 2002).

The declared aim of the Moldovan Government is greater European integration with a view to seeking EU membership in the future, but it is not currently a candidate country and EU–Moldovan relations are shaped by the European Neighbourhood Policy. The EU–Moldova Action Plan was signed

in 2004 with the aims to improve relations in areas of foreign and security policy, to resolve the conflict in Transnistria, to promote economic growth and to reduce poverty. Since then, each ministry has established a division responsible for EU integration and coordinated by the Department for European Integration within the Ministry of Foreign Affairs and European Integration. Negotiations with the EU to align Moldovan laws and regulations with the EU *acquis communitaire* (the body of EU laws that must be adopted by any country that wishes to become a member of the EU) are ongoing.

In 2011, the Republic of Moldova was rated 2.9 on the Corruption Perception Index, which has a range of 0 (highly corrupt) to 10 (highly clean). This is second only to Georgia in the post-Soviet arena, but the score is worse than that achieved previously (Transparency International, 2011). Nevertheless, there is a lack of public trust in governing institutions, and both politicians and the judiciary are often seen as being somewhat remote and corrupt (Badescu, Sum & Uslaner, 2004).

1.4 Health status

Male life expectancy in the Republic of Moldova did not fluctuate as widely through transition as it did in the Russian Federation or neighbouring Ukraine, but it fell from a high of 65.6 years in 1989 (72.3 years for women) to a low of 62 years in 1995 (69.7 years for women). Male life expectancy almost reached the pre-independence level of 65.5 years in 2008, but it subsequently fell again; female life expectancy recovered fully in 2006, at 72.4 years (Table 1.3). Nevertheless, average life expectancy in the Republic of Moldova is low compared with other countries in Europe, particularly EU Member States. Mortality rates are particularly high for the working-age population, and the reduction of life expectancy through death before 65 years of age was 12 years

Table 1.3
Mortality and health indicators, 1985–2010 (selected years)

	1985	1990	1995	2000	2005	2010
Life expectancy at birth (years)	66.1	68.6	65.9	67.8	67.8	69.1
Life expectancy at birth, male (years)	62.8	65.1	62.0	64.0	63.8	64.9
Life expectancy at birth, female (years)	69.3	72.0	69.7	71.5	71.7	73.5
SDR all causes and ages, male (per 100 000)	1 822.3	1 595.0	2 036.7	1 829.1	1 886.4	1 670.6
SDR all causes and ages, female (per 100 000)	1 256.9	1 069.5	1 317.3	1 167.4	1 159.4	995.6

Source: WHO Regional Office for Europe, 2012b.
Note: SDR: Standardized death rate.

for men and 6.4 years for women in 2010 (WHO Regional Office for Europe, 2012b). This has contributed to a significant and growing gender gap in life expectancy, which is also reflected in disability-adjusted life expectancy, which was 58 years for men and 63 years for women in 2007 (WHO Regional Office for Europe, 2012b).

Coronary heart disease predominates as the main cause of death in the Republic of Moldova for both men and women (Table 1.4). Many of these deaths can be attributed to very heavy alcohol and tobacco consumption: 57.6% of total male mortality and 62.3% of female mortality in 2010 could be attributed to smoking-related causes while 18.8% of male mortality and 13.7% of female mortality were related to alcohol consumption (WHO Regional Office for Europe, 2012b). Cancers and digestive diseases are the next most common causes of death for both men and women, which is in contrast to many countries of the former Soviet Union where external causes account for a higher proportion of deaths. The overall standardized death rate fell in the Republic of Moldova after 2005 (as it did across the CIS plus Georgia), but it is still above the average for both the CIS and EU (WHO Regional Office for Europe, 2012b).

Table 1.4

Main causes of death, 1990–2010 (selected years)

Causes of death (ICD-10 classification; standardized death rate per 100 000)	1990	1995	2000	2005	2010
Infectious and parasitic diseases	11.1	16.0	22.0	23.0	18.8
Tuberculosis	5.6	11.1	18.0	18.9	14.7
AIDS/HIV (as recorded by routine mortality statistics system)	n/a	0.0	0.3	1.2	2.2
Diseases of the circulatory system	583.4	755.4	834.3	858.4	731.1
Ischaemic heart disease	357.4	493.5	575.1	583.1	496.2
Cerebrovascular disease	182.3	207.5	222.6	236.9	182.9
Malignant neoplasms	163.7	161.5	147.0	161.2	165.3
Malignant neoplasm of colon, rectum and anus	16.3	18.5	18.6	20.2	21.3
Malignant neoplasm of larynx, trachea, bronchus and lung	35.5	33.4	27.9	28.3	31.5
Malignant neoplasm of breast	11.8	14.1	12.6	13.5	13.7
Malignant neoplasm of cervix/uterus (females)	9.1	9.5	7.8	10.5	9.9
Diabetes mellitus	10.6	12.1	11.7	11.6	10.7
Mental and behavioural disorders	3.7	8.0	2.9	5.8	5.7
Diseases of the respiratory system	79.1	93.7	87.1	92.6	71.8
Diseases of the digestive system	114.4	138.6	120.9	143.2	126.2
Transport accidents	32.8	20.0	13.6	14.4	12.5
Suicide and intentional self-harm	16.8	20.9	16.3	17.7	18.4

Source: WHO Regional Office for Europe, 2012c.
Notes: n/a: Not available; ICD-10: International Statistical Classification of Diseases and Related Health Problems 10th version.

A lifestyles survey conducted in 2010 found a female smoking rate of 4.5% and a male smoking rate of 39.3%, which is relatively low for countries of the former Soviet Union (Roberts et al., 2012). However, while the number of current smokers is falling among younger men, it is increasing among young women, and 11.1% of women aged 18–29 now smoke (Roberts et al., 2012). This is consistent with tobacco-marketing strategies, which have targeted young women particularly heavily (Gilmore et al., 2005).

According to data made available to the Health for All database, in 2008, 20.6 litres of alcohol per capita (aged 15+ years) were consumed annually in the Republic of Moldova, which is the highest reported consumption in Europe by a considerable margin (WHO Regional Office for Europe, 2012b). Of this 20.6 litres, 37.2% was consumed as beer, 34.1% as spirits and 28.7% as wine; however, as these figures reflect "official" consumption, it is likely that the amount of wine consumed is an underestimate because wine produced and consumed at the household level would not be included in the figures. Survey data from 2010 found that of regular drinkers wine is the most commonly consumed alcoholic drink (65.1% of men, 54% of women) followed by beer (39.2% and 14.4%, respectively) then spirits (20.5% and 4.7%, respectively); the same survey also found that the proportion of men drinking almost daily had fallen significantly, from 12.6% in 2001 to 5.2% in 2010 (Stickley, Roberts & McKee, 2012).

The infant mortality rate fell throughout the 1980s, but rose in the early 1990s from a low of 18.3 per 1000 live births in 1992 to 22.9 in 1994. However, overall, the rate followed a downward trend until 2004 when it stagnated at around 12 per 1000 live births; in 2010, it was 11.8 per 1000 live births, while infant mortality rates in other countries of the region (as well as neighbouring Romania) have continued to fall steadily (WHO Regional Office for Europe, 2012b). It is possible that the stagnation reflects an improvement in the recording of infant mortality rates since the introduction of new definition of a live birth in 2008 that is close to the WHO definition (Penina, Meslé & Vallin, 2010). However, the World Bank estimates, while showing a downward trend, are still substantially higher, at 16 infant deaths per 1000 live births in 2010 (World Bank, 2012b). It has been argued that the most accurate infant mortality rates would be 30% higher than the officially recorded rates (Penina, Meslé & Vallin, 2010). These estimates do not reflect the substantial inequities that exist between regions – babies born in urban areas are significantly more likely to survive – and issues such as poverty and work migration (which hinder access to antenatal care) are key concerns in achieving the relevant Millennium Development Goals by 2015 (United Nations Development Programme, 2010).

Official maternal mortality rates in the Republic of Moldova have fluctuated widely (Table 1.5), and unlike infant mortality, the maternal mortality rate has been well aligned with WHO definitions for some time (Government of the Republic of Moldova, 2010b). However, the actual numbers of deaths are relatively low (18 deaths in 2010; 7 in 2009), but as there were only 40 474 live births registered in the Republic of Moldova in 2010 each tragic death increases the maternal mortality rate exponentially (WHO Regional Office for Europe, 2012b). Under these circumstances, it is desirable to use a three-year rolling average; even so, for the Republic of Moldova, the fluctuations are still large. In 2010, the maternal mortality rate was 44.5 per 100 000 live births, which is extremely high compared with other countries of Europe, and using a three-year rolling average the maternal mortality rate has been increasing since 2006 (WHO Regional Office for Europe, 2012b). The abortion rate is relatively high and indicative of substantial unmet need for contraception, particularly as these figures do not cover all abortions in the country as those performed in private facilities are not counted.

Table 1.5

Maternal, child and adolescent health indicators, 1990–2010 (selected years)

	1990	1995	2000	2005	2010
Adolescent fertility rate (births per 1 000 women aged 15–19)[a]	n/a	n/a	45.7	35.3	31.9
Abortions per 1 000 live births	1062.9	1013.7	704.8	441.5	365.3
Perinatal deaths per 1 000 births	15.3	16.1	15.2	11.5	10.0
Neonatal deaths per 1 000 live births	9.3	11.6	10.7	7.5	7.4
Postneonatal deaths per 1 000 live births	10.0	9.9	7.7	4.9	4.4
Infant deaths per 1 000 live births	19.2	21.5	18.4	12.4	11.8
Mortality rate, under 5 years (per 1 000)[a]	37.1	31.3	26.4	22.3	19.0
Maternal deaths per 100 000 live births	44.1	40.8	27.1	21.2	44.5
Syphilis incidence per 100 000	15.8	174.5	97.8	69.6	71.5
Gonococcal infection incidence per 100 000	101.6	100.3	51.2	53.6	46.7

Source: WHO Regional Office for Europe, 2012b; [a]World Bank, 2012b.
Note: n/a: Not available.

Child immunization levels have been consistently high in the Republic of Moldova for all vaccine-preventable diseases, and in 2010, 97.1% of children were immunized against measles, 97.9% of infants were vaccinated against TB, 97.4% against polio and 97.6% against hepatitis B. The combined vaccination for diphtheria, pertussis and tetanus (DPT) covered 89.8% of infants in 2010, and vaccination against *Haemophilus influenzae* type b covered 61.2% of infants after being newly introduced to the vaccine schedule in 2009 (WHO

Regional Office for Europe, 2012b). The government hopes to add vaccinations against vaccine-preventable pneumococcal infections into the vaccination schedule from 2012. Following a widespread mumps epidemic in 2008, there was a drive to vaccinate older children and groups most at risk of infection, which was successful in containing the epidemic. However, for communicable diseases, the most troubling issue is the very high incidence of TB in the Republic of Moldova, and particularly the increasing number of patients with multidrug-resistant infection; TB is a very significant public health issue in the country, with an estimated incidence rate of 182 per 100 000 population in 2010 (WHO Regional Office for Europe, 2012b).

2. Organization and governance

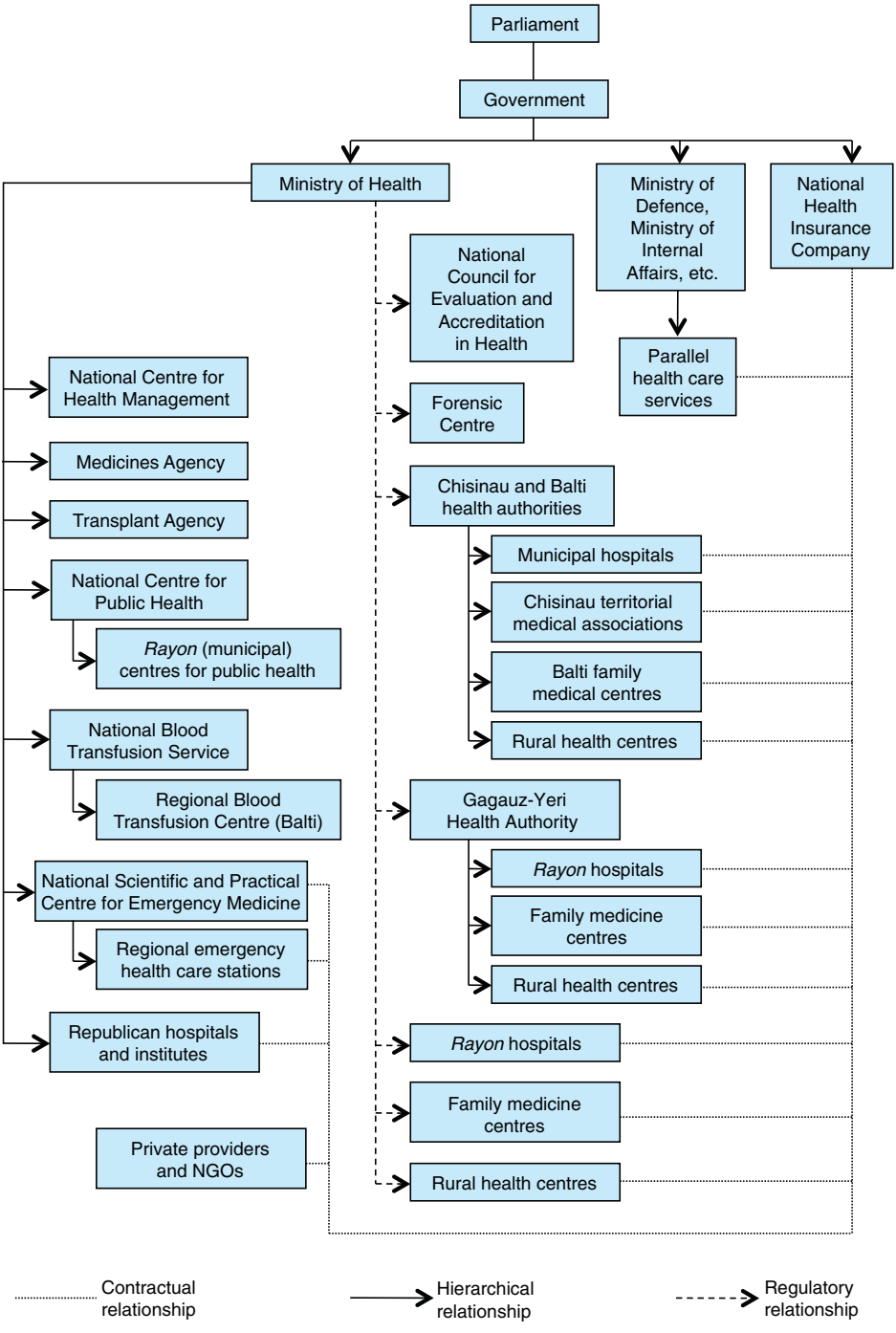
2.1 Overview of the health system

The health system of the Republic of Moldova is organized according to the principles of universal access to basic health services and equity and solidarity in health services financing from both the state and individuals through MHI mechanisms. The structure of the health system (Fig. 2.1) represents a range of public and private medical facilities, as well as public agencies and authorities involved in the provision, financing, regulation and administration of health services. Medical facilities are of primary, secondary and tertiary levels subject to their degree of specialization. They provide the whole spectrum of medical services for individuals and some services for the whole population through key programmes relevant for the control of specific diseases, such as TB, HIV/AIDS, diabetes, and vaccine-preventable infections, among others.

Medical facilities at primary and secondary levels provide services to the community and belong to local public authorities. Within the administrative authorities of the Chisinau and Balti municipalities, as well as the Autonomous Territorial Unit of Gagauzia (Gagauz-Yeri), there are special subdivisions responsible for the administration of subordinated health services. Primary care is based on family medicine and is provided by family medicine centres and health centres, with family doctor offices and health offices in rural areas. Until 1 January 2008, all primary care providers were under the control of the nearest district hospitals, but from this date they became administratively autonomous. Secondary care, which includes specialized ambulatory care and hospital care, is provided by district and municipal hospitals. In Chisinau, specialized ambulatory care is provided by territorial medical associations, which are independent of the municipal hospitals. In every district, there are also providers of emergency care (ambulance services), which belong to the Ministry of Health. Medical facilities at the tertiary level provide specialized and highly specialized medical care for the whole population of the country.

Fig. 2.1

Organization of the health system in the Republic of Moldova, 2012



Almost all of these facilities are located in Chisinau and belong to the Ministry of Health. Primary, secondary and tertiary care providers are directly contracted by the NHIC for the provision of medical services under MHI. Public medical facilities are autonomous self-financing non-profit-making organizations according to the Law on Health Protection (No. 411-XIII, 28 March 1995, plus amendments).

Many health services are provided by the private sector (mainly specialized ambulatory care providers, diagnostic laboratories, pharmacies and, less frequently, hospital and primary health care providers). Private health care providers and pharmacies can be contracted by the NHIC. A significant number of parallel health care services are also provided through public medical institutions belonging to other branches of government, which are financed from the state budget through the respective ministries but can also contract with the NHIC (Atun et al., 2008).

Institutions with regulatory functions, those supporting the development of health policies and those belonging to the SSPHS (reorganized from the State Sanitary and Epidemiologic Service in 2009; Government Decision No. 384, 12 May 2010), are financed from the state budget through the Ministry of Health to which they are subordinated. Through these institutions, the Ministry of Health collects and analyses data and generates relevant information to contribute to the development of evidence-based public policies. The Ministry of Health addresses the major challenges in the health sector and promotes the principle of Health in All Policies through multi- and intersectoral collaboration, including the coordination of public health activities within the sector and beyond it as per the Law on State Surveillance of Public Health (No. 10-XVI, 3 February 2009).

2.2 Historical background

Following the Republic of Moldova's declaration of independence in 1991, the transition from a centralized to a market economy has influenced the configuration of the health system in the new economic and fiscal context. The Constitution of 1994 guaranteed the right to health and to a free-of-charge minimum package of health services offered by the state. The management of individual health services providers was decentralized, in parallel with the responsibility for financing tertiary health care, which was put under the national budget, and for ambulatory/outpatient and secondary hospital care, which became the responsibility of local public authorities.

The economic conditions through the 1990s led to a rapid decrease in government revenue, which, in turn, imposed a dramatic reduction in health expenditure. The persisting problems in the system led to a contraction in the volume of health care being provided (including critical care), the indebtedness of public utilities and shortfalls in the remuneration of health workers. Patients had to cover the cost of health services themselves and this became a real burden for poor households. The negative effects of fiscal shock peaked in 1998, and almost all the rural hospitals were closed. In the same year, parliament also approved the Law on Mandatory Health Insurance (No. 1585, 27 February 1998) but its implementation was postponed because of the economic crisis. In parallel, ambulatory/outpatient services were reorganized as family medicine centres based on the principle of family medicine and the specialist doctors working in polyclinics were moved to consultation departments in hospitals.

In 1999, the Law on the Minimum Package of Free-of-Charge Health Care Guaranteed by the State was approved. This regulatory act introduced a minimum package of services to be provided free of charge to the entire population, with the government and local public authorities responsible for its financing. Nevertheless the capacity of medical facilities to provide services in line with the new legal provisions was limited through inequities in financing that resulted from the varying capacities of local public authorities to collect funds. Medical facilities were not secured with basic medicines and no investments were allocated for medical equipment and physical infrastructure, which had deteriorated since independence. The overcapacity of the health system inherited from the old Semashko system, particularly with regard to tertiary hospital and specialized institutions, meant duplications at national and regional levels, and fragmentation of the system resulted in the inefficient use of resources. All these factors created the impetus for returning to the implementation of the Law on Mandatory Health Insurance (Atun et al., 2008).

In 2001, the NHIC was created and the new financing mechanism was piloted in 2003 in the Hincesti *rayon*. From 2004, MHI has been implemented nationwide (see Chapter 3). The state guarantees regarding universal access to a package of free-of-charge health services have been fundamentally revised and balanced with the volume of financing from MHI funds (the Unified Programme (*Programul Unic*); Government Decision No. 1387 approved in December 2007). The NHIC has become the single institution responsible for the pooling and managing of funds; it purchases services by contracting with autonomous health care providers. In this way, the 2004 introduction of MHI represents a fundamental shift away from the financing mechanisms used in

the Semashko system, as the reforms introduced were comprehensive and system-wide. The historical background prior to independence can be found in the previous edition of this report (Atun et al., 2008).

2.3 Organization

The Ministry of Health and its subordinated institutions have full responsibility for the organization, functioning and regulation of health services provided to individuals and the public, and for ensuring the state surveillance of population health; however, the financing of most health services is the responsibility of the NHIC. Although most of the primary and secondary care providers belong to local authorities, the local authorities now have a reduced influence on the administration of health services in their territory as their responsibilities are extremely limited and unclear (see section 2.4). Health policies are influenced more by providers, while professional unions and patient organizations have limited influence. There are different types of ownership among health care providers; however, the state is the owner of the biggest medical institutions and of the sole health insurer, the NHIC. The key actors in the Moldovan health system are described below.

Parliament

According to the Constitution of the Republic of Moldova (1994), parliament establishes the structure of the national health system and the means for protecting the physical and mental health of individuals. Through legal acts, parliament has the power to reorganize the national health system and pharmaceutical activity as per the Law on Health Protection (No. 411-XIII, 28 March 1995). Parliament approves the annual Law on State Budget (which includes the budget of the Ministry of Health) and the annual Law on Mandatory Health Insurance Funds. The Parliamentary Commission on Social Protection, Health and Family examines draft laws and proposals relating to the health sector, develops reports or commentaries, conducts parliamentary investigations and debates, and takes decisions on intersectoral health issues.

Government

The Moldovan Government promotes state policy for population health, secures socioeconomic conditions and creates the technical and material basis as well as special funds for the development of health care. The government also manages, coordinates and approves regulations and regulates the activities of the Ministry of Health, the NHIC and any other government structures that have their own parallel health networks, as per the Law on Government (No. 64-XII, 31 May 1990).

Ministry of Health

The Ministry of Health is responsible for health policy and the development of legislation regulating the organization and provision of health services. It is also responsible for quality assurance and the establishment of minimum quality criteria, the definition of the benefit package, resource planning and the use of capital investments, surveillance of population health, setting public health priorities, the management of national health programmes (including health education), as well as the promotion of Health in All Policies. A series of basic functions of the Ministry of Health relates to ensuring the preparedness of the health system for efficient response to public health emergencies, to implementing international health regulations and to collaborating with international organizations and structures in the field of health. The Ministry of Health is also tasked with ensuring transparency and responsibility in the health system in order to achieve measurable results; with executing the Ministry of Health budget and the budgets of the subordinated institutions, including providing systematic and published information on budget execution and performance; and with improving the management of public finances in the field of health. For this purpose, from 2009, the Ministry of Health has had its Internal Audit Service, which conducts audit activities in subordinated institutions.

Other ministries and government agencies

The Ministry of Finance has a strong influence on the process of developing the health system budget through departments that examine state budget proposals for health and forecasts for MHI indicators, which are identified, developed and submitted by the Ministry of Health.

The Ministry of Education coordinates and monitors methodological and educational activity at higher, postgraduate and vocational training institutions in medicine and pharmacy. It approves overall curricula structure and ensures its compliance with general educational standards. The Ministry of Health approves the content. The Ministry of Education also promotes healthy lifestyles in statutory education institutions as a compulsory subject within the civic education curriculum and through "education for health" and "education for family life", which are optional subjects in secondary schools. The Ministry of Education also manages a small network of health workers involved in monitoring and strengthening the health status of children and youth in the educational system and monitors, together with the Ministry of Health, the implementation of health legislation in its subordinated institutions. There are also parallel health care systems under other branches of government (see section 3.6.1).

Regional/local administrative units (or local health authorities)
Three of the thirty-five administrative authorities in the Republic of Moldova (Chisinau municipality, Balti municipality and Gagauz-Yeri) have local health authorities responsible for local regulatory aspects, but they do not finance health services and the service providers are not directly subordinated to them. The legal framework regarding the competencies of local authorities in health is quite confusing and contradictory (see section 2.4) so the efficacy of health authorities in Chisinau, Balti and Gagauz-Yeri is not optimal.

NHIC
The NHIC is a state non-profit-making body with financial autonomy that was created by the government in 2001. Its responsibilities include MHI for the population; contracting health service providers for the provision of services to insured people; verifying that the provisions of the contracts correspond with the volume, terms, quality and costs of health care provided, as well as managing MHI resources within the limits of the contracted services; protecting the interests of the insured individuals; case validation; and concluding re-insurance contracts. The NHIC pools payroll and budgetary contributions for the reimbursement of health services. It manages five funds: the Fund for Reimbursement of Health Services, the Reserve Fund, the Fund for Prophylactic Measures, the Fund for the Development and Modernization of Public Health Service Providers, and the Administrative Fund for the MHI system.

The NHIC is a state agency with an Administrative Council, Executive Department and Control Council (*Comisia de Cenzori*). The composition of the Administrative Council is approved by the government and includes 15 members: one representative from parliament, one representative from the President's Office, five representatives from the government (including one each from the Ministry of Finance, the Ministry of Health and the Ministry of the Economy), three representatives from the National Confederation of Employers, three representatives from the National Confederation of Trade Unions, one representative from the health workers' professional organization and one representative from a patient rights organization. The activities of the Administrative Council are led by its chair, who is usually a government representative. The Executive Department is responsible for the NHIC's operational and ongoing administration within the limits of competencies given to it by the Administrative Council and by the Regulations of the NHIC, which are approved by government. The activity of the Executive Department is led by the Director General, who is appointed for a five-year period by government decree on the recommendation of the Administrative Council, which selects

him or her on a competitive basis. The NHIC covers the whole territory of the Republic of Moldova through territorial agencies, coordinating and supervising their activity within the existing legal framework.

National Centre of Health Management

The National Centre of Health Management was created by the government in 2007 through the reorganization of the Scientific and Practical Centre of Public Health and Sanitary Management. It is financed by and subordinated to the Ministry of Health. Its basic functions include the collection, standardization and analysis of statistical information on public health; the provision of the scientific strategy underpinning development of the health system; the development of standards, norms and regulations for health care; the monitoring of health service markets and the technical and material basis necessary for the provision of health services; and the creation of automated systems for the collection of operational information on the population's health.

National Centre of Public Health

The National Centre of Public Health (NCPH) and the 36 territorial centres of public health, which are located in all districts across the country, are supervised by the Chief Sanitary Doctor, who is a deputy minister of health and also heads the SSPHS (see section 5.1). The NCPH coordinates technical and methodological activities in the health sector directed at the development and implementation of strategies for health protection and promotion, prevention and control of communicable and noncommunicable diseases, as well as specific public health policies at the national level. The territorial centres of public health have similar responsibilities at the local level.

Medicines Agency

The Medicines Agency was created by the government in 2005. It is subordinated to the Ministry of Health and financed from the state budget. The Agency is responsible for the authorization of medicines, the quality control of medicines and regulation of pharmaceutical activity, the monitoring and coordinating of medicines supply and pharmaceutical care at the national level, and for collecting data on the pharmaceutical sector. The Agency is led by its Director General, who is appointed and dismissed by the government (see section 2.8.4).

Transplant Agency

The Transplant Agency was created by the government in 2010. It is subordinated to the Ministry of Health and financed from the state budget. The basic functions of the Agency include the organization and coordination of activities related to grafting, transportation and allocation of organs and the organization

and coordination of activities related to grafting, preparation, conservation, validation, allocation, storage and transportation for the transplantation of human tissues and cells for therapeutic reasons on the territory of the Republic of Moldova.

National Scientific and Practical Centre of Emergency Medicine

The National Scientific and Practical Centre of Emergency Medicine coordinates the activity of the Emergency Health Care Service and disaster medicine at the national level. The Emergency Health Care Service was created by the government in 2003 as a centralized service subordinated to the Ministry of Health (see section 5.5). The National Scientific and Practical Centre of Emergency Medicine and the emergency health care stations sign contracts for the provision of services with the NHIC.

National Council for Evaluation and Accreditation in Health

The National Council for Evaluation and Accreditation in Health is among few institutions of the health system that are not directly subordinated to the Ministry of Health. It was created by the government in 2002 and is a self-financing institution. Basic functions of the Council include evaluating compliance of health and pharmaceutical institutions and the activity of enterprises with the relevant standards and, based on this evaluation, providing official recognition that a health and pharmaceutical unit and its personnel are competent to conduct activities specific to its profile, in accordance with the standards and legal provisions in the field of medicine and pharmacy.

Organizations representing patients/consumers

There are some organizations representing patients' interests in the Republic of Moldova. Most are active in the field of chronic and rare diseases, such as diabetes, arthritis, haemophilia, cystic fibrosis, phenylketonuria and others. There are also organizations promoting access to information and protecting the rights of patients and disabled people, but these are mostly oriented around services for people living with HIV, TB or mental illness. The results of their activities depend heavily on the individuals leading them and on the financial resources available – most of which come from international partners.

Professional and providers' associations

One of the most active professional associations is the Association of Nursing of the Republic of Moldova, which represents nurses from different fields: paediatric nursing, oncology, psychiatry, community nursing and others. The association was founded in 1994 and has managed to extend significantly its network through the creation of 34 branches across the whole country. Since 1997, it has been a member of the WHO European Forum of Nursing

Associations. The League of Doctors of the Republic of Moldova was created in 1999 and aims to protect the professional interests of doctors and to define the criteria for fulfilling clinical functions. The League has a delegated member in the Administrative Council of the NHIC. There are also specialized associations for family medicine, surgery, oncology, psychiatry and narcology, rheumatology, orthopaedics and traumatology, ophthalmology, and so on. The ability of such organizations to promote members' interests and the participation of these bodies in decision-making processes depends heavily on how active the leadership of the association is and on the financial means available to them. The exception is Sanatatea (the health trade union), which has sufficient resources and a well-organized structure at national and local levels. Sanatatea plays an important role in protecting the rights of its members as well as promoting their working, professional, economic and social interests. There is a single association of private health services providers in the country and an Association of Private Doctors. There were initiatives to create an association of hospitals and family medicine centres, which has the support of the Ministry of Health.

NGOs

NGOs active in the health sector are both international and local organizations. Since independence, the country has received a lot of support from external bodies for the development of civil society, and this has built the capacity and sustainability of NGOs working in health. A large network of NGOs is active in HIV/AIDS and TB control and in supporting children's health, particularly for those with disabilities. NGOs are active participants in the development of health policy and their contribution to the development of partnerships with the civil society and in monitoring health reform is increasing.

Private sector

Very few health services are provided by the private sector, which are mainly providers of ambulatory health care, diagnostic laboratories and pharmacies. There are few private inpatient hospital and primary care providers. In 2009, amendments and supplements to the national legislation were made that eliminated the barriers to attracting private investment in the health sector. As a result, a private multiprofile hospital was opened in Chisinau in the same year. Accredited private health care providers and pharmacies can sign contracts for the provision of services with the NHIC.

Development partners

There are many international organizations active in the health sector of the Republic of Moldova and their role was and is essential in the promotion and support of health system reform (Atun et al., 2008). In 2009, the Ministry of Health set up the Health Sector Coordination Council for External Assistance, and from 2010 it has operated in line with the Governmental Regulation on the Institutional Framework and Coordination Mechanism of the External Assistance provided to the Republic of Moldova by International Organizations and Donor Countries. Similar councils exist in all ministries and their purpose is to increase the efficiency, efficacy and sustainability of external assistance through better coordination throughout the process of planning and implementing programmes.

The Health Sector Coordination Council for External Assistance is a consultative organ created on the partnership principle and responsible for the planning and monitoring of external assistance projects and programmes in the health sector. The Minister of Health chairs the Council and the WHO representative is co-chair. The heads of Ministry of Health subdivisions responsible for the development, monitoring and evaluation of policies and directives for European integration are members of the Council, as are representatives of donors active in the health sector and representatives of other relevant institutions. The Council meets as often as necessary, but at least once per quarter. At the Council meetings, priorities for assistance to the sector (including project proposals) are formulated, ensuring complementarity and avoiding duplication. Draft strategies and action plans are discussed, as well as health expenditure strategies related to the integration into the national public budget of planned actions and financial resources under external support. The Ministry of Health develops annual monitoring reports on externally funded projects and programmes implemented in the health sector, which are presented and approved at the Council's meeting.

2.4 Decentralization and centralization

Overall, the process of decentralization in the Moldovan health sector may be described as ambiguous in many aspects. In 1991, the ownership of primary care and inpatient facilities at district and municipal levels was transferred to the local authorities at those levels. Therefore, the primary care facilities in rural areas are also the property of local authorities at district and municipal levels.

Tertiary health care facilities belong to the Ministry of Health. Additionally, in the process of decentralization, some health services were privatized or their services are now provided privately (pharmacies, dental care, etc.).

Many competencies were transferred to local public authorities but the legal nature of these responsibilities is still not clearly defined: whether competencies are owned, shared or delegated. The multiple reforms of the local authorities since 1991 (six laws on local public administration and three laws on administrative–territorial reorganization) have not identified clearly the attributions and responsibilities in managing health services at the local level. Therefore, in the districts, structures and/or administrative capacities in place are inadequate to coordinate activities in the health sector, and medical facilities are, in fact, managed directly by the Ministry of Health. The formal and irrelevant nature of local authorities' competencies in the health sector has not improved the situation even in Chisinau, Balti and Gagauz-Yeri.

The Ministry of Health has retained almost all of the instruments necessary for managing health care providers belonging to the local authorities, even if their financing comes through the NHIC, and their managers are appointed by local authorities based on a selection process organized by the Ministry of Health. Under such circumstances, the coordination of health policy between the Ministry of Health and local authorities becomes increasingly problematic as the decentralization of the health sector was an ad hoc process without thorough preparation and without a well-defined and legally, economically, financially and socially reasoned conceptual base. For example, according to the provisions of the Constitution of the Republic of Moldova, the state has assumed unequivocally, directly and unconditionally responsibility for the health of its citizens. In this way, the government and the Ministry of Health are representatives of the state in respect of its obligation to fulfil the right to health, so transferring some part of the state responsibilities to local authorities runs counter to the constitutional norm (Soltan et al., 2009).

2.5 Planning

The Republic of Moldova is guided by a National Health Policy, a strategic planning policy (the Health System Development Strategy for 2008–2017) and a policy for midterm planning of financial resources (the Medium-Term Budgetary Framework 2013–2015). The Medium-Term Budgetary Framework is developed under five areas: policy development and health system management, priority interventions in public health, individual medical services, resource generation

for the health system, and special health programmes. The overall budget will exceed 5 billion MDL, but over 80% has been allocated to individual medical services; priority interventions in public health have been allocated around 7% (Ministry of Finance, 2012).

Through regulatory mechanisms, the government and the Ministry of Health can influence the planning of the health services provider network (see also section 2.7). The structure of the public network of primary care providers is approved by the Ministry of Health and is based on the population per family doctor. The schematic distribution of hospitals by types and categories and the ceilings for the supply of beds for the population are established by the government according to the Programme for the Development of Hospital Care for 2010–2012. The Ministry of Health also establishes the profile of services provided by hospitals belonging to local authorities and does not allow hospital managers to provide activities beyond those approved by the Ministry of Health. As a result, district hospitals have five basic profiles: therapy, surgery, paediatrics, maternity and communicable disease. Through contracting mechanisms, the NHIC forces health care providers to respect norms for the supply of health care and motivates them to adjust to regulations approved by the Ministry of Health. The capacity of primary care facilities is calculated per capita and are based on a provision structure, which has been revised many times since the early 2000s but which still does not take into consideration the specific health needs of the local population or the efficient use of resources. The situation is similar in the hospital sector. Although the Hospital Master Plan for the Republic of Moldova, taking into consideration the population's needs for hospital care and the efficient use of resources, was developed with the World Bank support in 2009, it has not yet been implemented, despite the document being revisited and revised in 2010 (Edwards, 2011).

The country has no mechanism for planning of human resources for health which would establish criteria and conditions for a sustainable plan that takes into consideration the needs of health workers in the context of demographic evolutions and increased morbidity, as well as the capacities of the educational institutions. There is an automated registry of medical personnel, administered by the Department for the Management of Health Personnel, Performance and Quality of Health Services at the Ministry of Health, but it is not yet used for long-term planning of human resources (see also section 2.8.3). The lack of consistent planning for health personnel and their migration from the system, combined with the ageing of the workforce and the local authorities' limited capacities to manage health services under their subordination, has led to a significant deficit in family medicine, particularly in rural areas. In order to

redress the situation, a Strategy for the Development of Human Resources for Health has been initiated with the World Bank support, but this has yet to be approved.

The government and the Ministry of Health do have all the tools for planning capital investments in the public infrastructure of the health system, but because of resource constraints at the national level, capital investments are minimal (see also section 2.8.6).

The SSPHS under the Ministry of Health organizes measures to ensure an adequate level of preparedness for public health emergencies. The government through its National Commission for Public Health Emergencies and local authorities through their territorial commissions for public health emergencies are fully responsible for the health sector preparedness for public health emergencies (see section 2.3).

2.6 Intersectorality

The National Health Policy of the Republic of Moldova has been developed in accordance with WHO recommendations and involved the active participation of all relevant ministries, authorities and institutions; civil society; professional organizations in the field of health; and international development partners. Discussion in society around the National Health Policy has been encouraged (Government of the Republic of Moldova, 2007). The document was approved by the government in 2007 and states clearly that the synergetic effect of health results can be produced only through complex, well-focused and sustainable investments, taking into consideration the multiple factors influencing population health, including those beyond the health sector and the competencies of the health workers. An important chapter of the National Health Policy is dedicated to the reform and consolidation of the health system through improving the quality of health services, mobilizing financial resources, training health personnel, and improving the stewardship process, in part through the promotion of Health in All Policies.

As a follow-up to the tasks listed in the National Health Policy, health impact is reflected in the policies of other sectors. For example, in 2008, the Ministry of Economy promoted and the parliament approved the Law on Security and Health in the Workplace. The Ministry of Transport and Road Infrastructure developed the National Strategy for Road Safety, which was approved by the government in 2010. The Ministry of Agriculture and Food Industry developed

and the government has approved the Food Safety Strategy for 2011–2015. In 2010, the government also approved the National Strategy against Drugs for 2011–2018, the implementation of which is to be coordinated by the Interdepartmental Commission to Fight Drug Use and the Narco-business. The Ministry of Education promotes health education subjects in educational institutions (see section 2.3). In 2010, the Ministry of Health, jointly with the Ministry of the Environment, developed the report *Children's Health and the Environment in the Republic of Moldova* (Ministry of Health & Ministry of Environment, 2010).

However, at the same time, the main provisions of the National Health Policy are not fully supported in the policies of other ministries. For example, the Ministry of Health initiative to introduce a "sin tax" on the retail of alcohol and tobacco products, with the subsequent use of accumulated resources for long-term and sustainable support for the tobacco and alcohol control programmes, was not supported by the Ministry of Finance. Only in 2010 was there a change in the calculation of tax rates for refined tobacco products, leading to significant increase in tax rates for all categories of cigarettes (with and without filter). Attracting investments to support initiatives outside the health sector that promote public health by reducing alcohol and tobacco consumption is one of the major challenges for the future. In parallel, the Ministry of Health plans to develop a regulatory framework for the implementation of the Law on the State Surveillance of Public Health, which, in fact, identifies among the Ministry of Health contributions the promotion of Health in All Policies and the coordination of public health activities in the health sector and beyond (see section 5.1).

2.7 Health information management

2.7.1 Information systems

The Moldovan health information system has evolved in a fragmented manner owing to economic pressures and limited capacities in health information management. The existing information system is mostly inherited from the Soviet period, with some adjustments made at the request of international agencies. The main institution that collects and analyses data is the National Centre of Health Management, which has specific functions related to the organization of the health information system (see section 2.3). According to the current legislation, both public and private medical facilities must submit

reports on their activity directly to the Centre; however, data presented by private institutions are usually underestimates. A separate information system is managed by the NHIC and includes monitoring of individuals covered under MHI, oversight of contributions and economic aspects of health service provision. Many other separate information flows reflecting activities within different national health programmes, and in state surveillance of public health, are managed by the NCPH (see section 2.3). However, data collected by these institutions are not used in conjunction, which limits the capacity of the health information system to make links between the general determinants of health, contributions, activities and results, as well as limiting the capacity to generate information on causality and to monitor the impact of policy interventions. Consequently, data on health status, quality and, particularly, the performance of health service providers do not correspond to the needs of decision-makers for informed policy-making. These problems are magnified because the health information system at the national level still does not benefit from a specific software solution for the collection, transmission, storage and automatic processing of data, and an adequate information and communications technology infrastructure is not available at all levels, particularly at subnational level (section 4.1.4). In 2008, the Ministry of Health initiated the development of National Health Accounts within the World Bank-supported project *Health Services and Social Assistance Services* (World Bank, 2012a). A report on the National Health Accounts for 2009–2011 was under way at the time of writing, but it was not clear whether the authorities will take into consideration the report's results in the process of developing and implementing health policies.

For communicable disease surveillance and health security, monitoring and evaluation information systems for TB, HIV/AIDS, STIs and drug use have been created with the support of international organizations and are functional. There is also an information system for the logistical management of contraceptives and reproductive health. There is also a well-articulated system for the reporting of notifiable diseases, and the methodology for calculating health indicators in the Republic of Moldova has been adjusted to WHO recommendations. For example, the Ministry of Health in 2008 introduced the WHO definition of a live birth for estimating infant mortality (see section 1.4). All these activities have been implemented under the commitments assumed in the Republic of Moldova–European Union Action Plan and as a result of the health information system evaluation with the support of the Health Metrics Network (Health Metrics Network, 2007). Following this evaluation, the Strategic Plan for the Development of the National Health Information System 2008–2017 was approved. However, because of the lack of material

and financial resources allocated for the maintenance of the health information system, the implementation of the Plan has been limited, and the information technologies in use do not meet the needs of health personnel. The lack of information resources represents a significant burden for personnel because they must spend more time filling in medical evidence forms manually. These problems served as incentive for the Ministry of Health to optimize the number of primary medical evidence forms by issuing Order No. 828 (31 October 2011), which approves a new list and sample primary medical evidence forms in the health system (see also section 4.1.4).

2.7.2 Health technology assessment

There is no institution in the country responsible for health technology assessment, that is, the systematic evaluation of the effectiveness, costs and impact of health care technology with the aim of informing health policy-making. Potentially, the National Medicines Agency will take on this role in the future (see also section 2.3).

2.8 Regulation

Since local authorities have no competencies in regulating the providers they own (see section 2.3), regulation of the activities of the health system in the Republic of Moldova is mainly the prerogative of the parliament, government, the Ministry of Health and its subordinated institutions. The impact of regulatory mechanisms, particularly of those aimed at quality assurance and management of health care providers, is influenced by a series of gaps in the legislation, particularly with regard to decentralization (see section 2.4). In addition, the existing system of registration and planning of human resources is mainly inherited from the Soviet period, with some adjustments made in the process of adapting the health system to new economic and social circumstances. The regulation of medical devices is lagging significantly behind the achievements in the regulation of medicines, and investments in health facilities are below expectations. However, the country has a system for regulating and managing the core third-party payer that ensures equity in resource and service distribution by pooling funds from the budget and the employers' and employees' contributions, thus separating the purchaser and provider functions and moving from the financing of health facilities according to the needs of infrastructure (beds, staff, etc.) towards contracting services in accordance with the needs of the population.

2.8.1 Regulation and governance of third-party payers

The NHIC is the single purchaser of medical services in the MHI system, from both public and private providers (see section 2.3). The benefit package offered under MHI is defined by the Unified Programme, which is developed by the Ministry of Health and approved by the government. The Unified Programme covers the list of diseases and conditions requiring health care financed from MHI resources. The Ministry of Health together with the NHIC approves the methodological norms for the implementation of the benefit package (Unified Programme) annually. The norms establish the condition of health care provision for each level and type, the list of paraclinical investigations, the payment mechanisms and the criteria for contracting eligible providers within the MHI system, based on the financial parameters stipulated in the Law on Mandatory Health Insurance Funds for the respective year, which is approved by the parliament. Through this regulatory mechanism, the focus of NHIC on public health priorities in the process of purchasing of health care services is ensured. The NHIC also drafts an annual report on MHI expenditure, which is presented to the government. The NHIC is subject to audit by the Court of Accounts which is an independent body and acts in accordance with the Constitution of the Republic of Moldova.

The Ministry of Finance's role is to collect the incomes approved and raised from insured people, which are managed by the State Treasury. Local authorities have no role in regulating the purchase of health services. Local public administrations in Chisinau, Balti and Gagauz-Yeri coordinate through health authorities the health services provision contracts under MHI – documents signed between the health facilities they own and the NHIC. The same coordination mechanism is used for concluding contracts with health facilities subordinated to the Ministry of Health. Private health insurers do not participate in MHI, and their activity is regulated by legislation covering insurance more broadly (see section 3.5).

2.8.2 Regulation and governance of providers

Parliament establishes the general framework for the regulation of health service providers at any level. According to this framework, a health care facility, irrespective of its property type and organizational form, provides health care services only if it has a statute approved by the Ministry of Health, which contains the list of provided services, and if it is included in the list of health care facilities, which is also approved by the Ministry of Health (the public medical institutions under the Ministry of Defence and the Ministry of

Justice are exempted from these regulatory mechanisms). Additionally, private medical facilities can provide health care only if they have a licence issued by the Chamber of Licensing under the Ministry of Economy, which recognizes the right of the holder to engage in the specified activities for a predetermined period of time, with a compulsory abeyance to the licence conditions. Also in the Republic of Moldova, the right to engage in medical activities is offered only to those medical facilities that have undergone a process of evaluation and accreditation to get an accreditation certificate from the National Council for Evaluation and Accreditation in Health (see section 2.3). The standards for the evaluation and accreditation of health service providers are approved by the Ministry of Health.

The responsibility for quality of health services and patient safety also lies with the Ministry of Health, which approves quality standards, clinical guidelines and protocols. Nevertheless, the monitoring of health service quality is significantly fragmented because the competences for monitoring are attributed to many institutions in the system, without a clear rationale. For example, from 2010, quality control in medical facilities, irrespective of their property type and organizational form, has been delegated through a ministerial order to the National Council for Evaluation and Accreditation in Health. The National Council has to verify within the process of evaluation and accreditation the implementation of provisions stipulated in the framework regulation of the Quality Council for the medical facility, in the regulation for the internal medical audit and in other regulatory acts related to the quality of medical act approved by the Ministry of Health. The NHIC is also responsible for verifying that the health care provided to insured people is of adequate quality under the provisions of the health care delivery contract. At the local level, there are no authorities responsible for monitoring the quality of health care services provided, the responsibility for quality management being attributed to the managers of facilities through a ministerial order. Consequently, quality monitoring is not standardized and there is no system for systematic reporting of results from local to national level. For example, in 2011, the Ministry of Health developed and approved over 1000 quality indicators for health care, and implementation was made the responsibility of health care facility managers, while the development of monitoring and evaluation mechanisms for these indicators was made the responsibility of the National Centre of Health Management.

2.8.3 Registration and planning of human resources

At the national level, practising medicine or pharmacy is authorized for those with a diploma or certificates issued by any higher or middle-level specialized education institution. Medicine can be practised by any person who successfully completes their higher medical education and has a diploma of higher education in medicine and a licence–certificate in the specialty obtained after postgraduate medical training and issued in accordance with national legislation. A certificate of postgraduate medical training abroad can also be accepted by the Ministry of Health in accordance with educational standards, provided that international treaties to which the Republic of Moldova is party do not stipulate other procedures. Medicine can be practised independently or within the state medical institutions. Practising medicine independently means that the doctor conducts his/her professional activities within an enterprise acting as a legal entity or as a physical person acting as an agent of entrepreneurial activity, providing medical services based on a licence issued by the Chamber of Licensing and on accreditation by the National Council for Evaluation and Accreditation in Health (see section 2.8.2).

Health workers are obliged to upgrade their theoretical knowledge and practical skills throughout their career, in accordance with the regulations developed and approved by the Ministry of Health. In order to maintain their qualifications and upgrade their level of training and professional responsibility, health workers are appraised at least once every five years and they get a qualification grade. Individuals who have not practised medicine or pharmacy for more than three years and who want to practise again have to update their knowledge in continuing education institutions or elsewhere, and only after this can they be authorized to practise.

The Republic of Moldova has no mechanism for the registration of health workers or for charting their individual performance, irrespective of their specialty or the type and subordination of the facilities in which they work. Consequently, it is not possible to gather dynamic information on the number and type of trained graduates or conduct human resource planning in accordance with the needs of the health system (see section 2.5). A specialized department in the Ministry of Health collects information on the flow of personnel and human resource needs in public health facilities, and based on these data develops plans for enrolment in residency and fellowship programmes and in medical colleges.

2.8.4 Regulation and governance of pharmaceuticals

The standards and regulations covering the quality of medicines authorized for use in the Republic of Moldova are established by the Ministry of Health. The Ministry of Health, through the Medicines Agency (see section 2.3), exercises state control of pharmaceuticals, which includes quality control, regulating pharmaceutical activity and pricing. Both medicines produced in the Republic of Moldova and those imported are subject to state quality control. Pharmaceuticals produced in accordance with Good Manufacturing Practice and registered by the European Medicines Agency and by the Food and Drug Administration of the United States of America are authorized based on the examination of documentation presented for each pharmaceutical and on the following selective quality control testing. Medicines that have gone through state quality control are included on the State Nomenclature of Medicines, which is a list of authorized medicines for production, import and use in medical and veterinary practice. When the registration certificate of the medicine expires, it is excluded from the State Nomenclature of Medicines, which is effectively a ban on import or production. Medicinal products for human use registered in the State Nomenclature of Medicines are classified as (1) generic products, (2) innovative products, (3) combined products, (4) medicinal herbs and combination of herbs, and (5) various others (homeopathic products, medicinal mineral waters, etc.).

The Republic of Moldova also uses the Anatomical Therapeutic Chemical Classification System with Defined Daily Doses proposed by WHO. Medicines are also classified as prescription-only medicines or medicines available without prescription.

Medical and pharmaceutical facilities are obliged to report to the Medicines Agency all cases of adverse reactions following the administering of a medicine registered in the Republic of Moldova. According to the legislation, facilities bear responsibility for any concealment, the presentation of incomplete information or for taking inadequate measures in this regard.

The advertising of unregistered medicinal products is forbidden. Physical and legal entities that do not have a licence for pharmaceutical activity are not allowed to advertise medicines, except their official representative registered in accordance to the current legislation. Prescription-only medicines can only be advertised through printed specialist information materials.

Pharmacies can be state owned, private or of a mixed form of property. Private pharmaceutical enterprises and/or institutions may dispense pharmaceuticals only if they have a licence issued by the Chamber of Licensing. There are three types of pharmacy: (1) community pharmacies, available to the public and benefiting from pharmaceutical assistance in accordance with legal regulations irrespective of the patient's residence and including in medical emergencies; (2) pharmacies that supply medicines only to inpatients in medical facilities; (3) university pharmacies that provide a training, research and a production base for medicines and other pharmaceutical products and are created by the university community within the Faculty of Pharmacy as a public access pharmacy. The Ministry of Health controls openness, function and activity of pharmacies. The Ministry of Health also establishes the norms for the space, location and extension of pharmacies. From 2011, newly created pharmacies (branches) should be located at least 250 metres from existing branches and at a distance of at least 500 metres from an existing pharmacy with dispensing chemists. There are also demographic norms established for the creation of a pharmacy. The number of inhabitants is confirmed by certificates issued by local public authorities. In municipalities, cities, district towns and other localities with the status of cities/towns, a pharmacy is created for 3000 to 4000 inhabitants.

The Ministry of Health approves the general rules for the prescription of medicines. Doctors from the medical facilities (both public and private) prescribe appropriate medicines for outpatient treatment to patients on prescription forms that are approved by the Ministry of Health. Doctors are obliged to prescribe using generic names. After consulting with the prescribing doctor, the pharmacist can substitute the prescribed medicines (if they are unavailable) with similar ones that have the same action. In such cases, the pharmacist is obliged to write down the name of the medicine actually provided on the prescription form. In practice, however, consultations with the prescribing doctor do not take place and the replacement of the missing medicine with an analogous one is done with only the patient's knowledge and consent.

The prices for medicines and other pharmaceutical products are established according to certain legal provisions. For example, according to the law, a mark-up of up to 40% from the delivery price of the local producer is allowed, of which up to 15% can go to the enterprises that import and/or distribute wholesale imported and locally produced medicines, and up to 25% can go to the pharmacies and their branches. From 2006, a value added tax (VAT) of 8% is also applied. In 2010, the government approved a regulation on the modalities of approval and registration of producers' prices for medicines, and this was

revised again in April 2012. The Ministry of Health approves producers' prices on medicines included in the National Catalogue, which is the average price of the lowest three prices for the same medicine in certain reference countries (which cannot have more than 25 million citizens). In the case of producers' prices from CIS Member States, the information regarding the comparison between the proposed price and the authorized producer's price is presented for two reference countries: Belarus and Armenia. For producers' prices from other countries, the comparison between the proposed price and the authorized producer's price is presented from at least three reference countries, taken from Romania, Greece, Bulgaria, Serbia, Croatia, Czech Republic, Slovakia, Lithuania and Hungary.

The Republic of Moldova has a system for the reimbursement of outpatient medicines under the MHI that began in 2005. The list of reimbursed medicines, including the fixed amounts to be reimbursed, is approved by the Ministry of Health and the NHIC. Initially the list was very limited, but it has been gradually extended to include 38 common international names of medicines for the treatment of common conditions, such as hypertension and other cardiovascular diseases (60% of the listed drugs). The cost of these medicines is subsidized by 50%, 70% or 90%. Additionally, there are fully compensated medicines: (1) a list of 22 common international names of medicines prescribed to children under 5 according to standards set by the WHO and the United Nations Children's Fund (UNICEF) strategy of Integrated Management of Childhood Illness; (2) four common international names of medicines for the prevention and treatment of anaemia in pregnant women; (3) three common international names of medicines for children aged 0–18 years; (4) 21 common international names of psychotropic and anticonvulsive medicines for adults and children; and (5) three common international names of medicines for the treatment of diabetes mellitus. Psychotropic and anticonvulsive medicines as well as those for the treatment of diabetes mellitus are also provided to uninsured people free of charge. The NHIC contracts with individual pharmacies for the supply of these pharmaceuticals, and the NHIC reimburses the pharmacy at the agreed percentage of the cost price for each prescription.

The share of allocations for reimbursed medicines is quite modest and constitutes only 4.3% of the basic MHI fund according to the joint Ministry of Health and NHIC Order on the approval of Methodological Norms for the Application of the Unified Programme of MHI in 2011 (No. 348/56-A of 29 April 2011). However, the list of reimbursed medicines is gradually being extended each year, depending on the funds available in the MHI system (see Chapter 3).

2.8.5 Regulation of medical devices and aids

The Ministry of Health is responsible for the regulation of medical devices and aids. In 2007, the government approved a regulation establishing the conditions for the market placement and use of medical devices; through this, some regulatory mechanisms on medical devices were brought into line with EU directives in this area. Since then, the Ministry of Health has launched initiatives for the establishment of a public institution responsible for the regulation of medical devices but they were not supported by the Ministry of Finance, the main argument being the lack of budgetary resources – particularly in light of IMF-imposed restrictions on budgetary spending. The Ministry of Health, therefore, delegated competences for the regulation of medical devices to one of its subordinated bodies, but this has generated a conflict of interest through the overlap of health service provision and health device management functions. In 2010, the Ministry of Health promoted and parliament approved amendments and supplements to the legislation to stipulate that activities involving medical devices are regulated by law.

In 2011, the Ministry of Health initiated procedures for a governmental decision attributing the regulatory functions for medical devices to the Medicines Agency; however, there is little hope that this effort will be more successful than the previous ones. A Court of Accounts audit in 2011 (Decision No. 5 of 25 January 2011) ascertained that the lack of a legal framework regarding medical devices and of normative acts regulating them, as well as the lack of an efficient internal control system within public medical facilities, generated problems and deficiencies in the planning of procurement of medical devices and in their distribution, and that this contributed to the uneven and inappropriate supply of medical devices to public medical facilities. The lack of coordination in the regulation, procurement and supply of medical devices also adversely affects the demand for such devices, the quality and conformity of the devices procured, the functionality of the existing equipment, and the observance of legal provisions by economic agents dealing in medical devices. Nevertheless, from 2010, the Ministry of Health began testing an information system to collect information on medical devices that would allow demand to be estimated more accurately in several pilot facilities, but it is not applicable to all public medical facilities.

The Republic of Moldova has a Law on Humanitarian Aid and an interdepartmental (intersectoral) Commission for Humanitarian Aid has been set up by the government; a representative of the Ministry of Health is a member of this Commission. The Commission's work includes the examination of requests

for qualifying donated goods as humanitarian aid, issuing authorization for their import and coordinating the collaboration of state institutions and public organizations with donors and receivers/distributors of humanitarian aid.

2.8.6 Regulation of capital investment

Funds for capital investments in health care facilities are allocated by the state budget but they are so limited that they cannot solve the problem of obsolete infrastructure in public health care providers (see section 2.5). Local authorities also make modest contributions to capital investment in the infrastructure they own because the law on local public finances does not give them responsibility for public health expenditure. From 2010, the NHIC has managed a fund for the development and modernization of public health services providers, and every public provider that has a contract with the NHIC may submit an investment project that is examined and approved for financing on a competitive basis, according to a special regulation approved by the government. Initially the development fund consisted of 1% of the total health insurance fund, but this was increased to 2% in 2012.

2.9 Patient empowerment

2.9.1 Patient information

Authorities at all levels of the health system, both public and private medical and pharmaceutical facilities, as well as the NHIC are responsible for ensuring a patient's right to information. This right includes information on the volume of health care stipulated in the Unified Programme, information on personal medical data and access to medical records of investigations and treatments. The patient has also the right to information regarding the health service provider (its profile, the quality, cost and mode of service delivery) and his/her own health, including diagnostic, treatment, recuperation and prevention methods, as well as the right to be fully informed about the potential risk and therapeutic efficacy of such methods. Although there are controversial views on the effectiveness of measures undertaken by the health system in ensuring patients have access to such information, according to household surveys conducted in 2008 and 2010 by the National Bureau of Statistics, 69% of those benefiting from medical services in hospitals in 2008 stated that the doctor had explained their treatment well and clearly, but in 2010 this was 74%. At the same time, the share of those mentioning that there was no explanation of

the proposed treatment almost halved, from 13.3% in 2008 to 7.3% in 2010 (National Bureau of Statistics of the Republic of Moldova, 2011). According to another population survey conducted in 2011, 73.8% of insured people stated that they knew their rights and obligations (PAS, 2011). Almost half of respondents (46.6%) stated that they were informed about MHI by their family doctor, while 28.9% received information from the NHIC and 28.3% relied on mass media (PAS, 2011).

2.9.2 Patient choice

By law, patients may freely choose their family doctor and primary care provider. The process of registering with a family doctor is approved by the Ministry of Health together with the NHIC. The NHIC manages the database for registering with a family doctor and also has a system of online registration. Every person, irrespective of their insurance status, is obliged by law to register with a family doctor by making a request to the primary care provider's administration. Changing family doctors can be done once a year, in September–October, except when people have changed their place of residence. In practice, registration is usually made with a family doctor in the closest primary care facility and all family members in the household are registered with the same family doctor. Everyone can check his/her registration data in the NHIC database by accessing its web site. The NHIC also publishes the list of medical facilities providing primary care through family doctors on its web site.

For the free choice of secondary and tertiary health care providers, the insured person can access services provided at different levels only based on a referral from the family doctor, with the exception of emergency cases and other special situations. Only pregnant women have the right to freely choose their doctor and the medical facility providing delivery and postpartum care, except where a medical condition dictates the need to respect the principles of regionalization and triage of pregnant women during the process of delivering perinatal care.

2.9.3 Patient rights

In 2005, parliament passed the Law on Patient Rights and Responsibilities. Apart from the rights to information and explanation, Point 2.9.1 of the Law stipulates the right to health care services free at the point of delivery in the volume established by the legislation and the right to a respectful and humane attitude from health care providers, irrespective of the age, sex, ethnicity, socioeconomic status or political and religious views of the patient. The patient

has the right to an alternative medical opinion through the recommendations of other specialists at his/her own or his/her legal representative's (close relative) request, as well as the right to his/her own life's security and the right for physical, psychological and moral integrity through discretion in the process of health care service provision. The patient also has the right to examination, treatment and care in adequate conditions respecting sanitary and hygienic norms, as well as to express voluntary consent or denial of a medical intervention and of participation in a biomedical research (clinical trials). However, despite the existing legal framework on patient rights and responsibilities, no mechanisms for its application in practice have been developed so far, and no public institution responsible for this has been identified that could become a credible defender of patient rights. Some activities in this area have been implemented with the support of development partners and the Ministry of Health has developed instructions on presenting medical information; the list for the evaluation of surgical safety of patients and the WHO Manual for its implementation; the list of medical interventions requiring written informed consent and the template form for the "patient's informed consent". Information campaigns to inform the general population about patient rights and responsibilities are also implemented but they focus mainly on MHI. Nevertheless, the results of a study conducted in 2011 shown that 71% of patients who had had surgery confirmed that they signed an informed consent form, the share being lower in district hospitals (61%) than in municipal (74.4%) or republican (77.5%) ones. At the same time, most of the respondents also confirmed being sufficiently informed about the planned medical interventions, the risks and the alternatives. Again, the percentage was higher in hospitals at republican level (79.1%) than at municipal (71.7%) or district (70.4%) levels. Nevertheless 25.5% of respondents declared being insufficiently informed or not informed at all (PAS, 2011).

2.9.4 Complaints procedures (mediation, claims)

According to the 1995 Law on Health Protection, the patient has the right to request a professional review to be conducted in the established way and to compensation for moral and material prejudice following inadequate health care. The 2005 Law on Patient Rights and Responsibilities stipulates also that the patient or his/her legal representative may institute legal procedures against health service providers where their actions have led to the infringement of the individual rights of the patient, as well as against public authorities and responsible individuals involved in decisions or actions leading to the infringement of his/her social rights as provided by the legislation. The patient is entitled to have their complaints examined and resolved in a prompt, correct

and efficient manner. Every medical facility is obliged to clearly display public information on patient rights, the method and time frames for the deposition of petitions and suggestions.

Although the legislation stipulates the rights of patients to complain to territorial health authorities (which only exist in Chisinau, Balti and Gagauz-Yeri), the NHIC, medical and pharmaceutical facilities, professional doctors' associations, patients' associations and public associations for the protection of health service users' rights, patients prefer to address their petitions directly to the Ministry of Health. The Ministry of Health has no specialized unit for dealing with patient complaints and dealing with them is delegated to the internal subdivisions responsible for policy development in the areas that correspond most closely to the subject of the petitions. Patients' requests or complaints are examined in the framework of the Law on Petitions (1994) according to which both the patient or his/her legal representative and the health care provider against which the complaint is being made are informed about the outcome of the review and the decision taken. If the patient or his/her legal representative disagrees with the outcome, they can address their complaint to an independent commission for professional medical expertise, which is created ad hoc by ministerial order. Usually patients address their petition in writing, but it is now possible to do this electronically. Petitions are examined by the relevant bodies within 30 days, or within 15 days from the registration date for those that do not need an additional review and analysis; the final decision should be communicated immediately to the petitioner. In exceptional cases, the examination term can be prolonged by the manager of the respective body for up to one more month and the petitioner is informed of this.

Some patients address complaints regarding inadequate health care to public associations for the protection of the rights of health service users. These associations draft a petition to the Ministry of Health and/or the other health authorities or medical/pharmaceutical facilities involved, and bring the matter to court where there is a disagreement with the results of review and the decision taken. Therefore, the role of public associations for patient rights is increasing; moreover, there are cases when, based on such appeals, the courts have issued sanctions (including financial ones) for harm to the petitioner's health. In 2009, the Ministry of Health developed a draft Law on Civil Liability Insurance that was examined and commented on by the other ministries involved, but its progress was stopped because the implementation of such a law might have generated legal and financial problems. The creation of a special fund to cover compensation awards to patients has also been discussed, but this idea was

abandoned as well because of the fiscal constraints resulting from the global economic crisis in 2008–2009. The Ministry of Health has no system in place to monitor cases of infringement of patient rights and their review in courts.

2.9.5 Public participation

According to the 2005 Law on Patient Rights and Responsibilities, all decisions of economic, administrative or social character with a potential influence or impact on the population's health status, at the national or local level, should take into consideration public opinion. Patients have a collective right to be represented at all levels of health system and to be involved in the process of decision-making regarding the planning and evaluation of services, including the breadth, quality and delivery mode of services provided. Citizens of the Republic of Moldova, patients' organizations and NGOs can participate in the development of health policies and programmes, as well as in setting priorities and criteria for resource allocations.

The means for public participation in the health system was only developed in 2010, when, in order to increase transparency in the development of legal and regulatory documents, the Ministry of Health, along with other government authorities, developed internal rules for ensuring transparency in the decision-making process, in line with Governmental Decision On the Actions for the Implementation of Law No. 239-XVI from 13 November 2008 Regarding the Transparency in the Decision-making Process (No. 96, 16 February 2010). These rules include the regulation of information, consultation and participation in the process of developing and approving decisions, the contact details of the coordinator of the public consultation process, and the list of interested and informed parties, which includes most of the NGOs active in the field of health. However, public involvement in the Ministry of Health decision-making process is still minimal. According to an internal Ministry of Health report on transparency in the decision-making process produced in 2010, only in 14 out of 105 cases were drafted decisions opened to public consultation and public associations came with proposals and recommendations, and in only two cases were these proposals and recommendations taken into consideration.

Patient satisfaction surveys have been conducted and the results of a recent survey conducted in 2010 are presented in Table 2.1.

Table 2.1

Level of patient satisfaction with different aspects of service provision and hospital care in a general group of 1204 respondents, 2010

	Very unsatisfied (%)	Unsatisfied (%)	Neutral (%)	Satisfied (%)	Very satisfied (%)	Don't know/ no answer (%)
Doctors' knowledge and qualification	1.7	5.1	9.7	64.0	19.0	0.3
Nurses' knowledge and qualification	2.0	4.7	13.9	63.1	15.4	0.9
Health personnel attitude (politeness, behaviour, etc.)	2.5	5.8	14.0	61.9	14.9	0.9
Auxiliary personnel (cleaners, cooks) attitude (politeness, behaviour, etc.)	1.9	7.8	15.9	59.1	14.5	0.8
Time allocated by the ward doctor for consultations	1.8	5.1	13.0	63.0	16.0	1.1
Conditions in the ward (cleanness, furniture, space, etc.)	1.7	8.3	16.6	58.8	14.0	0.6
Thermal comfort in the ward: warm/cold	1.7	7.0	16.4	60.2	13.7	0.9
Bed linen, blankets	2.9	11.9	19.1	50.2	11.2	4.7
Sanitary block (washbasin, WC)	3.8	14.5	17.9	51.9	10.0	1.7
Conditions in the treatment room and other spaces (cleanness, space, etc.)	0.9	5.6	16.3	62.0	12.4	2.8
Water supply (cold and warm, round-the-clock), access to shower	5.3	15.1	18.3	49.3	10.0	2.1
Meals in hospital	4.2	12.6	21.5	48.5	10.5	2.7
Conditions for recreation (television, newspapers, rest, conditions for the visit of relatives, etc.)	7.6	14.9	25.1	39.0	8.1	5.4
Level of payments for services	4.7	12.8	23.6	39.6	7.6	11.7

Source: PAS, 2011.

3. Financing

3.1 Health expenditure

From 1995 until 1998, there was stabilization of both total expenditure on health and public expenditure on health as a proportion of GDP; in 1998, there was a dramatic decrease due to the fiscal impact of the "rouble" crisis (see section 1.2). The post-crisis recovery was slow before 2004, but following the introduction of MHI, there was a constant and continuous increase in both total health expenditure and public expenditure until the global economic downturn in 2008 (Table 3.1). The fall in health expenditure in 2009–2010 was not as dramatic as that registered in 1998, largely because of the more robust fiscal footing of the health financing system since the introduction of MHI. The availability of the Reserve Fund, which accumulated significant resources between 2004 and 2009, as a means to cover the emerging budget deficit was particularly significant.

The increase in public expenditure on health in 2009 (against the background of an approaching economic crisis) compared with 2008 was mainly the result of additional resources being allocated from the national budget for specific health programmes (immunization, diabetes, mental health, paediatric care, etc.). In 2009, total health expenditure as a proportion of GDP in the Republic of Moldova was the highest in the WHO European Region (Figs. 3.1 and 3.2).

However, total health expenditure in absolute terms (US dollars purchasing power parity) is still very low relative to other countries of the European region and this significantly limits the volume of the package of services provided and their quality (Fig. 3.3). The share of public expenditure as a percentage of GDP is also much lower in the Republic of Moldova in comparison with other countries in the region, while the share of private expenditure is, respectively, quite high (Fig. 3.4). This places a particularly high burden on the poorest in the population, who are often at risk of catastrophic health care costs (see section 7.2).

Table 3.1
Trends in health expenditure in the Republic of Moldova, 1995–2010 (selected years)

	1995	2000	2005	2006	2007	2008	2009	2010
THE per capita, WHO estimate (MDL per US$ purchasing power parity)	115	98	216	272	297	343	357	360
THE as % of GDP, WHO estimates	9.1	6.7	9.2	10.6	10.9	11.4	12.5	11.7
Public sector health expenditure as % of THE, WHO estimates	64.2	48.5	45.6	44.4	45.2	47.2	48.5	45.8
Private sector expenditure on health as % of THE, WHO estimates	35.8	51.5	54.4	55.6	54.8	52.8	51.5	54.2
Public sector expenditure on health as % of total government expenditure, WHO estimates	13.1	9.5	11.3	11.7	11.7	13.0	13.4	13.1
Public sector expenditure on health as % of GDP, WHO estimates	5.8	3.2	4.2	4.7	4.9	5.4	6.1	5.4
Private household OOP payment on health as % of THE	27.4	42.9	44.7	46.1	45.7	45.1	43.7	44.9
Private household OOP payment on health as % of private sector health expenditure	76.5	83.3	82.1	82.9	83.3	85.4	84.8	82.8
VHI as % of THE	0	0	0.1	0.1	0.1	0.1	0.2	0
VHI as % of private expenditure on health	0	0	0.3	0.2	0.3	0.2	0.4	0.1

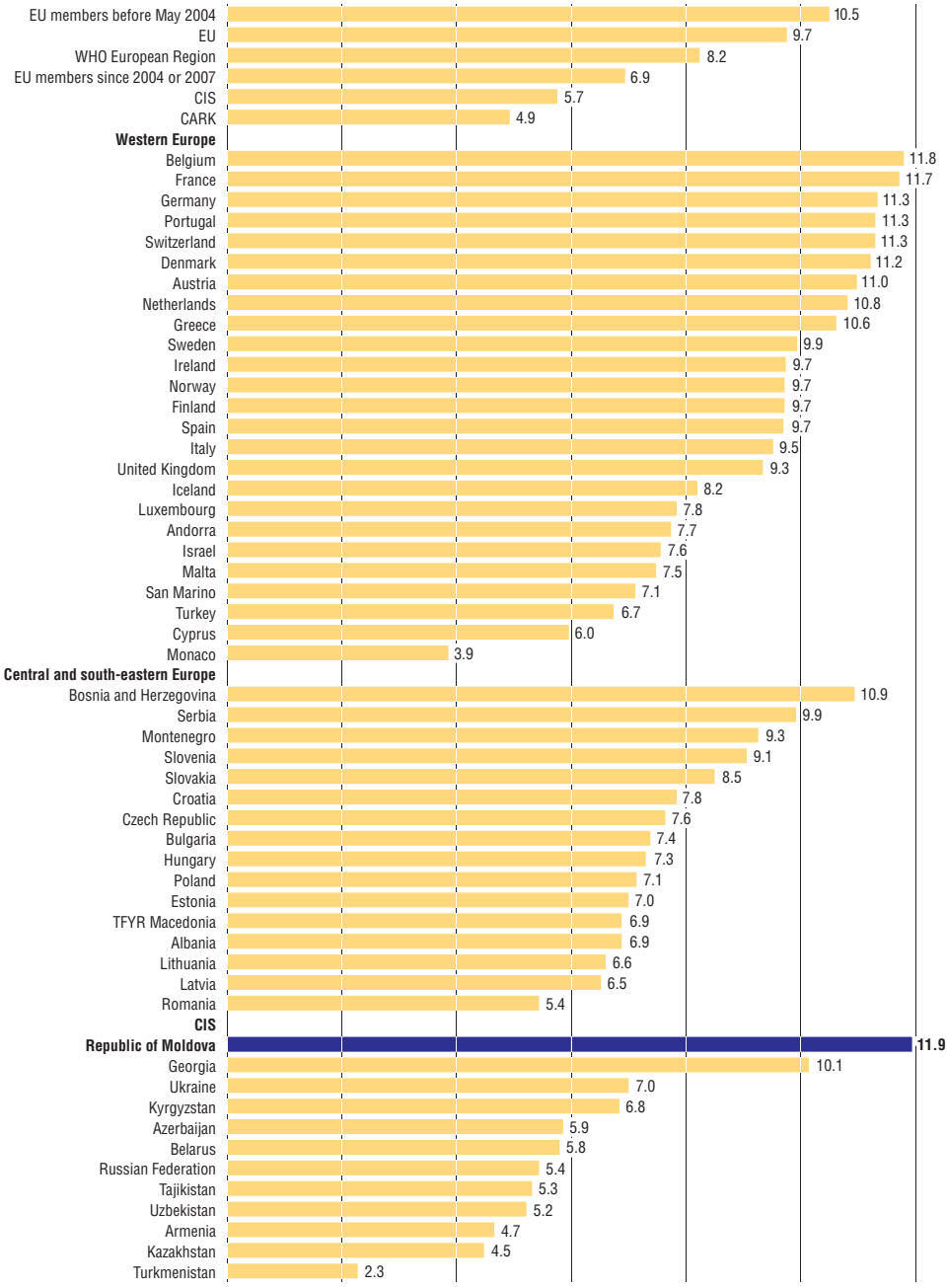
Source: World Health Organization, 2012.
Note: THE: Total health expenditure.

The share of spending on curative services as a proportion of public expenditures on health is quite high (68.1%), while the share of spending on public health and prevention is extremely low, at just 5.3% (Table 3.2). Public expenditure on medicines and medical devices for patients in outpatient settings is also very low, although these service programmes account for 32.4% and 44.1%, respectively, of total health expenditure. The overall balance between the proportion of spending on inpatient and ambulatory care within public expenditure on health confirms the government's commitment to strengthening primary health care services.

Unfortunately, the data presented in Table 3.2 are only available for 2010 and so an analysis of trends is not possible at this point, but the further development of National Health Accounts will make this possible in the future. The Ministry of Health is committed to continuing work in this area and collecting such data in the future with a view to using them for decision-making in health financing.

Fig. 3.1

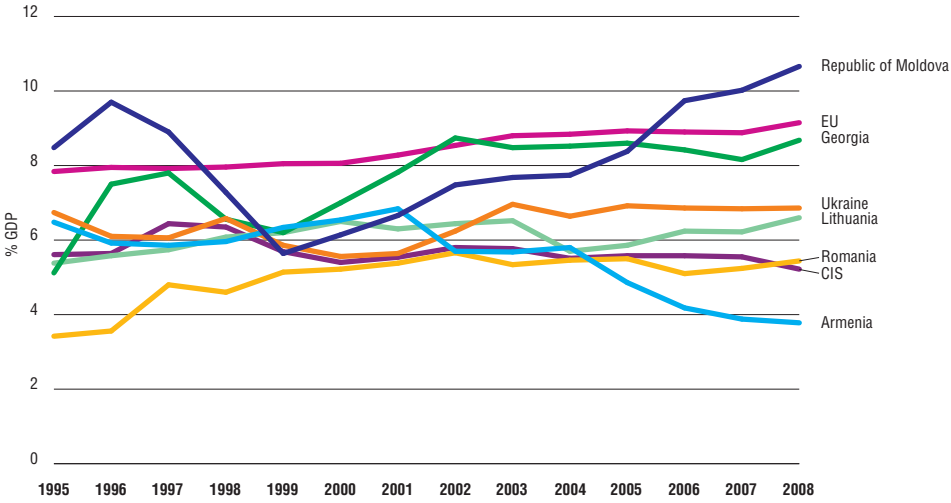
Total health expenditure as a percentage of GDP (WHO estimates), 2009



Source: WHO Regional Office for Europe, 2012b.
Note: CARK: Central Asian Republics and Kazakhstan.

Fig. 3.2

Total health expenditure as a percentage of GDP in the Republic of Moldova and selected countries (WHO estimates), 1995–2008



Source: WHO Regional Office for Europe, 2012b.

Table 3.2

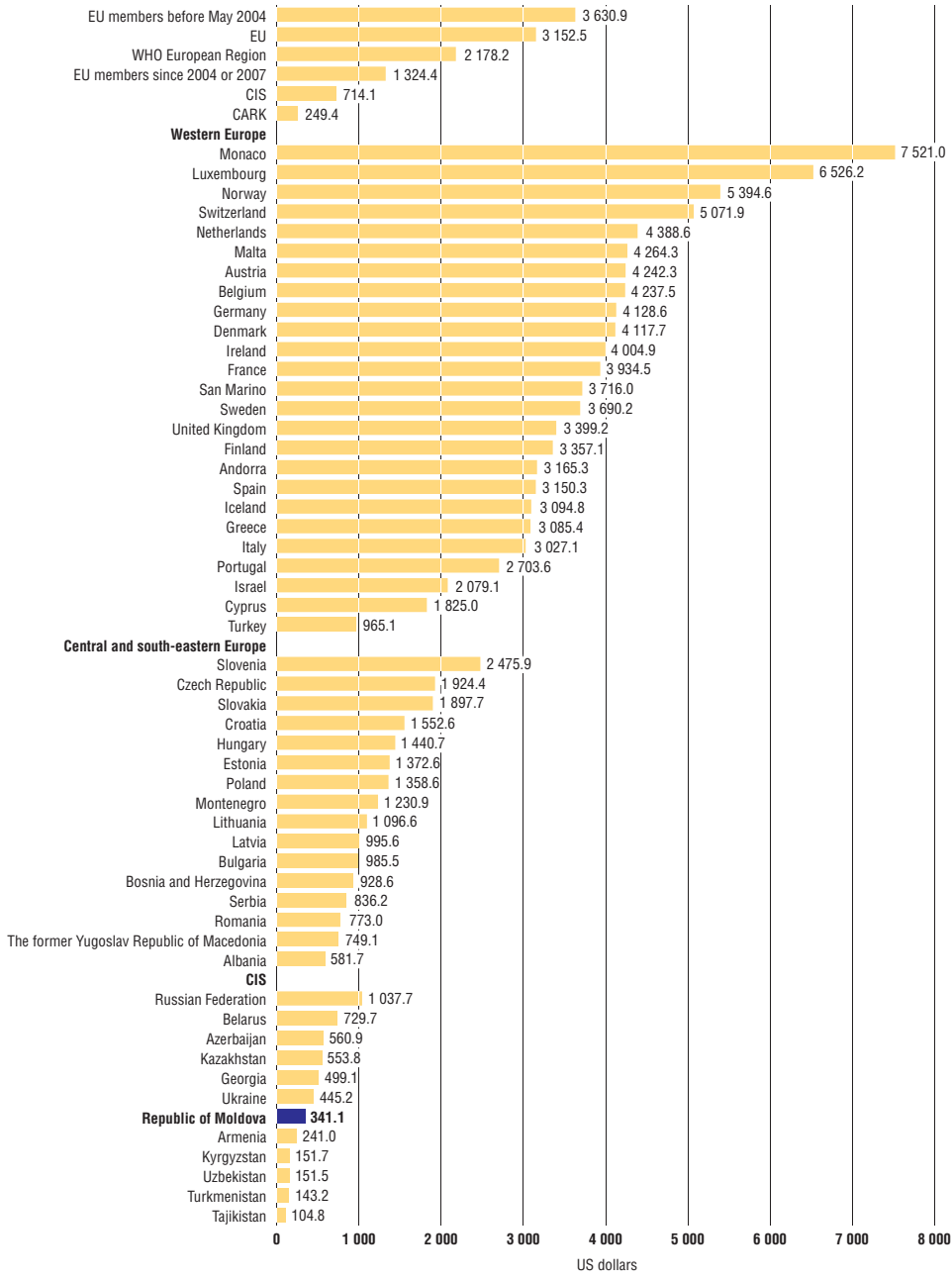
Public health expenditure on health by service programme, 2010

	Percentage of public expenditure on health	Percentage of total expenditure on health
General government administration of health	1.3	0.6
Education and training	6.6	3.9
Health research and development	1.1	0.5
Public health and prevention	5.3	8.3
Curative services:	68.1	44.1
inpatient care	38.9	22.6
outpatient/ambulatory primary care	20.0	12.1
outpatient/ambulatory specialized medical services	6.8	3.5
outpatient/ambulatory dental services	0.8	4.7
Rehabilitation services	1.5	0.7
Ancillary services	7.6	0.2
Services for long-term care	2.7	1.3
Medicines and medical devices for outpatients	3.3	32.4
Capital formation of health care providers	3.8	4.9

Source: National Centre for Health Management, Department of National Health Accounts; unpublished data requested by the authors.

Fig. 3.3

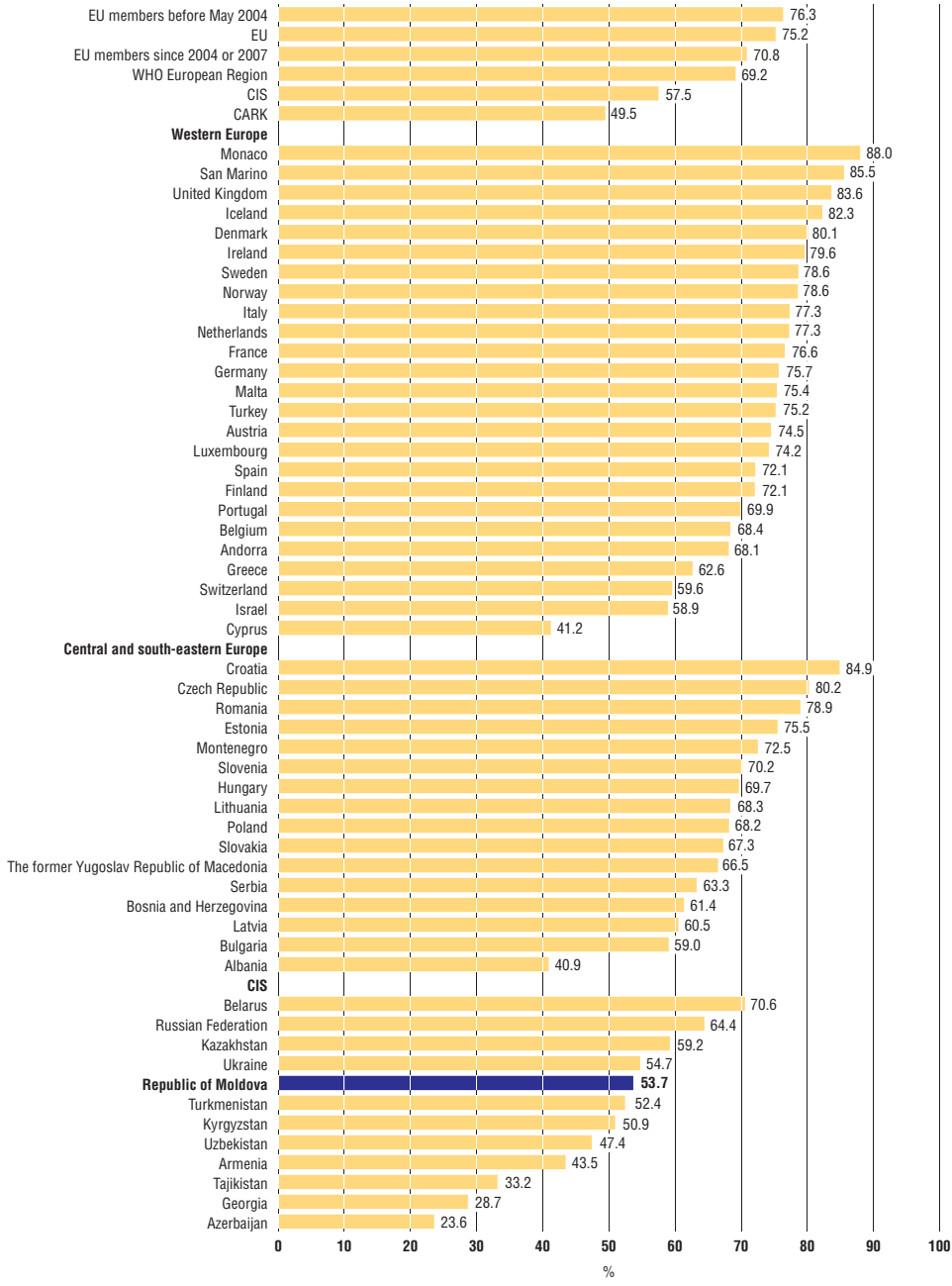
Total health expenditure per capita (US dollars), 2009



Source: WHO Regional Office for Europe, 2012b.
Notes: CARK: Central Asian Republics and Kazakhstan; PPP: Purchasing power parity.

Fig. 3.4

Public sector health expenditure as a percentage of total health expenditure (WHO estimates), 2009



Source: WHO Regional Office for Europe, 2012b.
Notes: CARK: Central Asian Republics and Kazakhstan.

3.2 Sources of revenue and financial flows

The main source of revenue for the health system is currently OOP payments closely followed by MHI funds, which are raised through payroll contributions for employees, transfers from the national budget to cover the non-working population (14 categories of people, such as pensioners, students, children and registered unemployed; see Box 3.1) and direct payments from self-employed workers (Fig. 3.5). The share of VHI fell to less than 0.1% in 2010 (Table 3.3). OOP payments are made up of informal payments and direct fee-for-service payments; there are no official user fees or co-payments for services.

Box 3.1
Categories of non-working persons for which the government acts as insurer

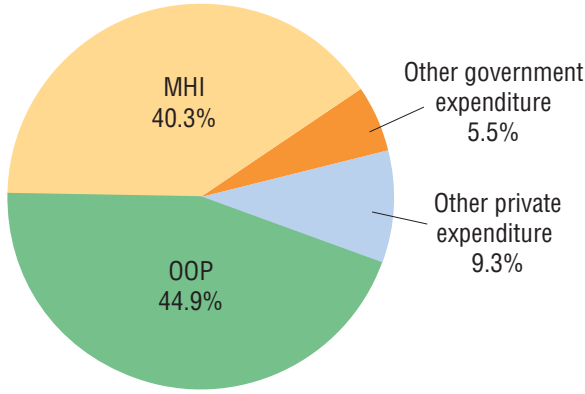
- Preschool children
- Schoolchildren in primary, secondary and high schools, as well as general secondary education
- Students in vocational training schools
- Full-time students in secondary specialized education (colleges)
- Full-time students in higher university education
- Full-time residents in mandatory postgraduate training and doctoral (PhD) candidates
- Children younger than 18 years of age
- Registered disabled persons
- Pregnant women, women in childbirth and recently postpartum women
- Pensioners
- Registered unemployed persons (for a maximum of six months)
- Carers for severely disabled children (into adulthood)
- Mothers with four and more children
- Persons from vulnerable families benefiting from social aid according to the Law on Social Aid (No. 133-XVI, 13 June 2008).

Source: Law on Mandatory Health Insurance, No. 1585, 27 February 1998.

The introduction of MHI created a single pooling and purchasing agency – the NHIC. The NHIC pools payroll contributions and national budget transfers. Budget transfers, which legally should make up at least 12.1% of total government expenditure, are allocated on an annual basis by the Ministry of Finance to the NHIC. The payroll taxes are collected through the State Fiscal Inspectorate, which then transfers them to the NHIC directly (Fig. 3.6). Direct contributions are made by self-employed people, who buy health insurance policies at a fixed price. The single pool is used by the NHIC to purchase the standard package of services (Unified Programme), which is

Fig. 3.5

Percentage of total health expenditure in the Republic of Moldova according to sources of revenue, 2009



Source: Calculations based on World Health Organization, 2012.

Table 3.3

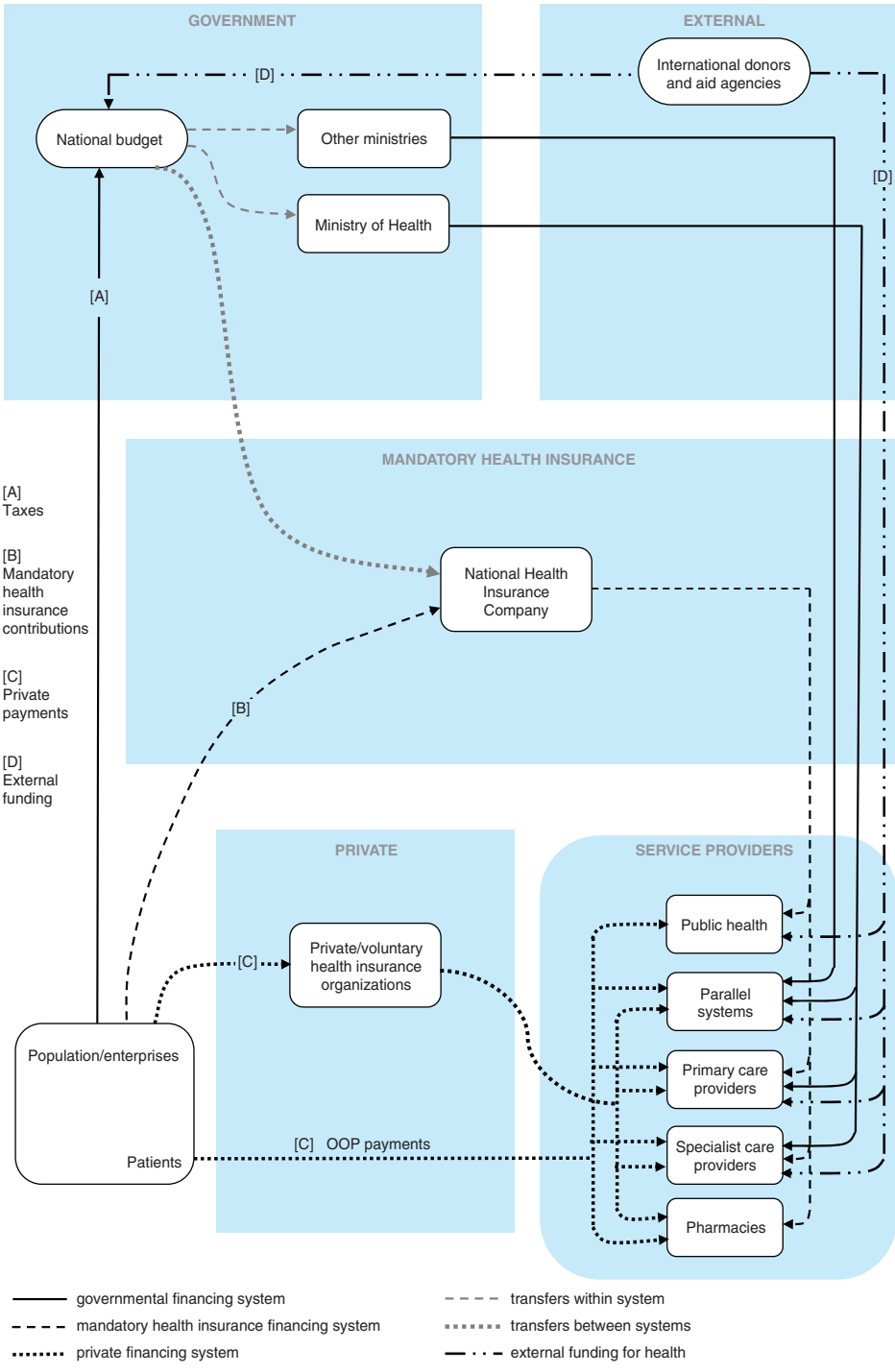
Sources of revenue as a percentage of total health expenditure, 1995–2010 (selected years)

Source of revenue	1995	2000	2005	2006	2007	2008	2009	2010
General government expenditure	64.2	48.5	45.6	44.4	45.2	47.2	48.5	45.8
MHI contributions	0	0	32.2	31.2	32.6	35.8	41.9	40.3
OOP payments	27.4	42.9	44.7	46.1	45.7	45.1	43.7	44.9
VHI	0	0	0.1	0.1	0.1	0.1	0.2	0
Non-profit making institutions serving households (e.g. NGOs)	7.5	6.8	8.2	8.2	7.8	6.5	6.7	8.8
External resources on health	0	14.7	4.6	4.1	4.3	4.4	7.0	9.6

Source: World Health Organization, 2012.

approved annually by the government. Purchasing is made on the basis of contracts, most of which are prospective. Emergency and primary care may be accessed without charge regardless of insurance status, and services connected to key public health issues, such as TB, HIV and mental health, are also provided free of charge. The benefits package available under MHI also covers inpatient and specialized outpatient care and a very limited range of pharmaceuticals. All other pharmaceuticals need to be paid for directly and in full by patients. In 2010, private expenditure on pharmaceuticals accounted for 59.9% of private expenditure on health (World Health Organization, 2012). The financial capacities of private insurers to make additional investments in health through VHI are negligible.

Fig. 3.6
Financial flows in the Republic of Moldova



3.3 Overview of the statutory financing system

3.3.1 Coverage

The main legal basis for entitlement under the MHI scheme is the 1998 Law on Mandatory Health Insurance. However, there are many other laws and regulations in the health sector that touch on entitlements. The Health Insurance Law affords equal opportunities for access to quality health services to all residents of the Republic of Moldova. Membership of the MHI scheme is compulsory for all residents in the Republic of Moldova. Difficulties in defining the denominator (i.e. the resident population of the Republic of Moldova) has made it hard to assess actual coverage rates, but recent estimates put the share of uninsured in the resident population at 20.1% in 2011 (Shishkin & Jowett, 2012). Many of the uninsured are self-employed subsistence farmers, who have to purchase their own cover (Richardson et al., 2012), and the self-insured account for a very small proportion of those covered by the MHI (Shishkin & Jowett, 2012). In order to tackle this issue, from 2010 households registered as living below the poverty line (i.e. those with monthly household incomes below the threshold minimum of MDL 530 (US$ 43)) have automatically received an MHI policy. There have also been a number of initiatives to encourage the self-employed to purchase cover by providing discounts for buying policies early in the year and also making a valid policy a condition for renewing certain licences and so on.

The government plays the role of insurer for 14 categories of non-working people (see Box 3.1). These categories are automatically covered by transfers from the national budget without individuals having to make formal contributions. In practical terms, this government role eliminates the formal exclusion of certain groups from the MHI system. However, some categories (such as unemployed or disabled people) need to register as such in order to benefit under the scheme. MHI coverage is also open to citizens from other countries living in the Republic of Moldova; where they are employed or have formal residency in the country, they can benefit from the same package of services after contributing to the health insurance system through payroll taxes or by directly purchasing an insurance policy. Undocumented migrants can access health services at a special Centre of Temporary Placement of Foreigners and if there is need for hospitalization they can be hospitalized in a public medical institution.

There are, however, some practical barriers preventing certain population groups from accessing health care even though they are insured. Self-employed people have to buy their insurance policy themselves and they can do this either at the territorial agencies of the NHIC (altogether 12 agencies spread across the country) or at the nearest post office to where they live. The unemployed have to get officially registered with the National Agency for Labour Force in order to benefit from health insurance; they will benefit without contributing until the Agency offers them a job, although unemployment benefits including health insurance cover are only available for six months from registration. To access care under MHI, patients need to be registered with a family doctor. There are also general problems in accessing health care related to the shortage of health personnel in rural areas, transport costs, poor roads and so on.

The benefits package under the MHI is described in the Unified Programme, which comprises a list of diseases and conditions requiring health care to be covered from MHI funds. The list includes diseases and conditions with major impact on individual and public health. The list is a "positive" one and there are no cash benefits available. The Unified Programme also includes a separate limited list of compensated medicines. The services covered include emergency care, primary care, secondary and tertiary care (including rehabilitation services), termination of pregnancy, emergency and prophylactic dental care, and auxiliary services such as medical transportation, laboratory and instrumental investigations, and home and palliative care. In 2012, the government further extended the benefits package (Unified Programme) by including new immunological, radiological and nuclear medicine investigations (Government Decision from 21 March 2012). Cosmetic surgery, spa treatment, in vitro fertilization and optician services are not covered under the Unified Programme. The benefit package is a standard one for the whole insured population. The statutory insurance bodies cannot offer additional benefits over the established package.

The Unified Programme is developed by the Ministry of Health and approved by the government. The development of the Unified Programme is a participatory process and involves specialists from the Ministry of Health, NHIC, academia, professional associations, patients' representatives, NGOs and other stakeholders. The criteria used as a basis for decision-making are largely based on international recommendations, particularly in fields such as primary care, mother and child health, and communicable and noncommunicable disease control. For the medicines covered, decisions are based on effectiveness, cost–effectiveness and safety, and these are reflected in a special regulation approved by the Ministry of Health. The volume of services under the Unified Programme

has expanded in recent years through the inclusion of home and palliative care, as well as with more medicines for the treatment of cardiovascular diseases, digestive diseases, locomotor disorders and paediatrics.

Insured individuals can benefit from services under the MHI system only where care is clinically indicated and not at their own request. However, the Unified Programme does not currently envisage any statutory user charges. An attempt to introduce co-payments for visits to family doctors to be paid by uninsured individuals was made by the government in 2011 but it was rejected by parliament.

3.3.2 Collection

The government contributes to health financing both by allocating a certain percentage (not less than 12.1%) of the governmental budget to the National Health Insurance Fund and by directly financing the SSPHS as well as national public health and special programmes. The volume of transfers from the state budget for health is established annually under the Law on State Budget. There are currently no earmarked taxes for health, so all budget contributions to health financing are from general taxes. The responsible body for tax collection is the Fiscal Inspectorate, which is part of the Ministry of Finance. Most of the general taxes are collected at the central level; the few collected at the local level do not contribute to health financing. Currently, taxation is proportionate; however, the government intends to increase the progressive character of some taxes in 2012.

The payroll taxes going to MHI are earmarked specifically for health. The payroll tax represent a fixed percentage of salary (7% in 2011 and 2012) established annually under the Law on Mandatory Health Insurance Funds; employees and employers each pay 3.5%. There are no differences in contribution rates by type of employment or other criteria. There are also no upper or lower thresholds on contributions. The Ministry of Health prepares proposals on the contribution rates for the government and the government submits the proposals to parliament for approval. The payroll tax is collected by the Ministry of Finance through the Fiscal Inspectorate. From the State Treasury, the collected funds are transferred directly to the National Health Insurance Fund. The 14 socially disadvantaged groups do not contribute directly and are covered by the state (see Box 3.1) and self-employed people pay a fixed amount (flat rate) for the insurance policy. The flat rate is calculated jointly by the Ministry of Health and the NHIC on a yearly basis and proposed for approval to the parliament (Law on Mandatory Health Insurance Funds). The flat rate represents 7% of the average annual salary per economy forecasted

for the respective year based on macroeconomic indicators. In 2010, the budget contributions to the MHI represented 54% and the payroll contributions 45%; flat-rate contributions were made by 335 000 individuals (1%) (Shishkin & Jowett, 2012).

3.3.3 Pooling of funds

The 2004 health financing reform led to the establishment of a single pool of funds by pulling together budgetary funds, payroll and flat-rate contributions. In this way, budgetary financing has been preserved but it is directed through the health insurance system (with a few exceptions). The health budget is unique and is approved annually only at the national level through the Law on State Budget and the Law on Mandatory Health Insurance Funds. Payroll taxes are deducted monthly from salaries. The NHIC is the single pooling agency. Historically, overspending was never a problem, except in 2004 when MHI was introduced. At that stage, the new system inherited the local public authority debts; however, most of those debts were soon covered by the state budget and some local authority budgets. Since then, local public authorities have been excluded from the process of planning the health budgets but they still contribute to the health sector as founders (owners) of local medical facilities. The NHIC can also receive revenues from penalties and financial sanctions, as well as in form of dividends from bank deposits.

There are "parallel" government health systems under the State Chancellery, Ministry of Defence, Ministry of Justice, Ministry of Interior, Ministry of Transport, and the Security and Information Service. The budgets of these parallel systems are not part of the health budget but are included in the overall budgets of the respective ministries, which allocate and disburse funds to health services internally. Except for the State Chancellery, there is no official information available on the share of expenditure on health in the overall budget of these ministries.

The NHIC is also the single purchaser of health services for the entire population of the country. Resources are allocated in different ways for different services, based on signed contracts between the NHIC and health service providers. The payment methods include payment per capita, per service, per treated case, per bed-day and per visit; global budgets; retrospective reimbursement per service in the limits of the contracted budget; and bonuses for certain performance indicators achieved (see section 3.7). In primary care, the main payment mechanism is capitation, which is risk-adjusted by age group (under 5, 5–49 and over 50 years). About 25.7% of the basic MHI fund is

allocated on a capitation basis. The Ministry of Health intends to broaden the risk-adjustment mechanisms and also to include geographic adjustments for vulnerable regions and populations. At the hospital level, resources are mainly allocated per treated case and prospectively; however, only 80% of the funds needed are allocated monthly. Also at the end of each quarter, 25% of the annual contracted sum is allocated, based on the reported and validated cases. High-performance services are purchased on a per service basis. The processes are standardized across the entire country.

The health budget is structured by specific programmes. In the overall state budget, it is called "Public Health and Medical Services" and includes the following: development of policies and health system management, priority interventions in public health, individual medical services (which includes the largest share of MHI fund), developing resources of the health system, and special medical programmes. The resource allocations from central to local level in the health sector differ from other sectors as they involve contractual relationships, while in other sectors (education, social services) it is purely about budgetary allocations. The NHIC can bear certain financial risks. For instance, it can have a surplus and in this case this goes to the Reserve Fund. So far, the NHIC has not experienced a deficit. The risk of deficit was high during the economic crisis but it was covered from the Reserve Fund. The NHIC has also refrained from borrowing money, except at the very beginning of health financing reform in 2004. On 30 March 2012, parliament approved a new law by which the positive balance of financial resources accumulated at the end of the year, after the disbursal of all MHI funds, is transferred to the next year: 25% to the Basic Fund; 25% to the Reserve Fund and 50% to the Development and Modernization Fund.

The NHIC itself does not manage any additional pool to cover exceptionally expensive treatment and such treatment is covered from the single pool; however, only a limited number of cases can be covered annually and patients usually have to be on waiting lists. In parallel, there is a separate (parallel) pool dedicated to exceptionally expensive treatment (including treatment abroad) under the state health budget, which is managed directly by the Ministry of Health. This funding is extremely limited and its distribution is decided by a commission set up by the Ministry of Health, which includes a Ministry of Health employee and top clinicians from tertiary institutions. The commission examines written requests from patients or doctors. The funds are allocated only if there are no possibilities for treatment in the Republic of Moldova.

3.3.4 Purchasing and purchaser–provider relations

As a result of the 2004 health financing reform, purchaser and provider functions have been separated and have become contractual. In theory, the NHIC can contract selectively with individual public providers and the legal framework allows this. But in practice, little selective contracting has taken place so far. One of the main criteria used for contracting has been the accreditation status of providers. According to the legislation, only accredited institutions can be contracted; however, exceptions have had to be made in the past as the accreditation process was lagging behind and many key institutions were not accredited. Currently, almost all major health care providers are accredited and there are only a few institutions that are not accredited but still have contracts with the NHIC. The selectivity principle is better applied in the case of private providers. Every provider, irrespective of the form of property, presents its offer for contracting to the NHIC; however, real competition is again observed only among private providers, as all public providers are contracted and the prices for services are standardized according to the level of care. There is one single sample contract, which is approved by the government.

The contracting process starts by the development of offers by providers. The offers are submitted to a special commission created by the NHIC. Following the preliminary examination of offers, providers are invited to the NHIC for detailed negotiations on the volume and costs of the services to be contracted. Usually three rounds of negotiations take place – initial, intermediate and final – with adjustments at each stage. For public institutions, the draft contracts are also coordinated with the providers' founders/owners (except for tertiary facilities, which are under the Ministry of Health). According to the contract, the providers are obliged to provide qualified health care to insured people in the volume and time frames stipulated in the Unified Programme, and the NHIC is obliged to cover the respective costs. Regressive payment methods are used in contracting hospital care services in order to prevent provision of services in excess of the contract. According to the legislation, the NHIC is obliged to monitor the implementation of contracts and it has a special unit for this at the central level as well as monitoring personnel in the territorial branches.

The NHIC offers certain incentives to providers who work with special groups of people, particularly at the primary care level. For example, bonuses are offered to family doctors for cervical cancer screening, ambulatory treatment of patients with TB, health monitoring for pregnant women from the

gestation age of three weeks and health checks for children in the first year of life. However, the share of resources directed for these incentives represents just 4% of the whole bulk of per capita allocations for primary care.

Direct payments represent an important part of the providers' reimbursement (see Tables 3.1 and 3.3). In theory, insured individuals should only make direct payments for services outside the benefits package, and the tariffs for such services are approved by the government. In practice, however, patients pay for some services and medicines that are part of the benefits package (see section 3.4). So far, the Ministry of Health and the NHIC have not managed to put in place effective mechanisms to regulate such practices, but the issue is on the reform agenda.

3.4 OOP payments

Historically, no significant evolution in OOP payments can be observed as they were at the same level in 2004 when MHI was introduced and even before the reform (see Table 3.3). Therefore, the introduction of MHI has not managed to generate additional revenue through prepayment, potentially because the package of services offered under the Unified Programme is relatively small (particularly in covering the cost of medicines; Table 3.4) and informal payments are relatively high. Increasing OOP expenditure on medicines has led the government to revise the mechanisms for price regulation of pharmaceuticals (see section 6.1).

Table 3.4
Composition of OOP payments

OOP use (%)	2007	2008	2009	2010
Inpatient care	9.7	9.2	8.9	8.9
Outpatient care	17.9	19.4	17.7	16.4
Medicines	79.1	69.8	71.2	73.1
Medical appliances	2.2	1.5	2.2	1.7

Source: National Bureau of Statistics of the Republic of Moldova, 2011.

As there are no cost-sharing mechanisms in the Republic of Moldova, OOP payments are composed of direct payments and informal payments. Unfortunately, there are currently no data available on the overall share of these two components in the health sector. The only study available on this is a national poll in 2011, which estimated the share of informal payments in

total OOP expenditure in hospitals to be 58% (PAS, 2011). It is also known that uninsured people have to pay more out of pocket than the insured, and the richer quintile of the population pay more out of pocket than poorer households (Shishkin & Jowett, 2012). This has implications for financial protection as a significant proportion of the uninsured are from vulnerable groups; in addition, the poorer quintiles pay less not because they are protected but simply because they are less able to pay (Richardson et al., 2012). For example, a hospital study found that the OOP payments of respondents from the poorest quintile are equal to 337.1% of their monthly income when hospitalized, while those from the richest quintile pay just 36.8% of their monthly income (PAS, 2011).

3.4.1 Cost sharing (user charges)

There are no official cost-sharing mechanisms in place in the Republic of Moldova. In 2011, the Ministry of Health initiated the introduction of co-payments for visits to the family doctor by the uninsured (MDL 40 (US$ 3.4) per visit) and included provisions in the draft Law on Mandatory Health Insurance Funds. The main objective of this initiative was to increase MHI coverage, particularly for the self-employed. However, parliament rejected this proposal. Additionally, some private providers may request extra billing from insured people, by making them to apply for VHI.

3.4.2 Direct payments

Direct payments at the point of use are present in both the public and the private sectors and are borne by both insured and uninsured individuals. The insured pay directly for those services and goods that fall outside the benefits package while the uninsured pay directly the whole cost of service provided by either public or private institutions (except for emergency care). In the public sector, people most often make direct payments for specialized ambulatory care and hospital care, and less often for primary care services. Direct payments are not required at all for emergency care (ambulance services). The clear majority of direct payments is for medicines and dental care. The Ministry of Health is committed to addressing the issue of direct payments and is examining different policy options for this. Increasing the scope of MHI coverage might lead to a decrease in direct payments and this is one of the options being explored.

3.4.3 Informal payments

Hard evidence on informal payments is still quite scarce and it is not possible to examine their evolution over time. A survey studying hospital care revealed that 37.9% of all hospitalized patients made informal payments to health

personnel, and the average sum paid was about US$ 100 (PAS, 2011). More informal payments were made by rural respondents (40.8% of patients). In Chisinau and Balti cities, 36.2% of patients paid informally and 30% did so in district centres. The highest share of informal payments occurred in republican (tertiary) institutions (48.4%). In municipal hospitals, the share was 39.7% and in district hospitals it was 31.2%. By specialties, the highest percentage of patients making informal payments was found in maternity services (71%) and among those undergoing surgery (50.9%); only 32.9% of patients treated conservatively made informal payments. The survey also revealed that insured patients made informal payments less often (36.8%) than the uninsured (45.5%). The frequency of informal payments increased with income level. The age groups 19–29 and 30–39 are those who make informal payments most frequently.

The Ministry of Health is highly committed to addressing the issue of informal payments. Among the interventions envisaged for this purpose is better information for the population about their entitlements, increasing the salaries of health workers and developing performance-based payment mechanisms.

3.5 VHI

3.5.1 Market role and size

VHI in the Republic of Moldova has a complementary and supplementary character and plays a very limited role, in terms of both services and user charges. In 2010, VHI expenditures made up approximately 0.1% of total health expenditure and as such it constitutes an insignificant share (see Table 3.3). The total revenue of VHI in the Republic of Moldova was MDL 17.27 million in 2010 (US$ 1.5 million). Annual increases in revenue are quite modest, except in 2009 when there was a 75% increase in revenues compared with 2008; in 2010 the increase was just 5% (Popa & Cernica, 2011).

The driving factors for choosing to purchase VHI are the desires to benefit from services outside the benefits package and to get better quality services (including hotel services), faster access and a greater choice of providers. VHI can also cover certain diagnostic investigation on demand, even when they are not clinically indicated.

Since 2009, there has been increased interest in VHI and the role of private insurers in the MHI system. Following extended debates, a feasibility study was conducted which concluded that private insurers do not currently possess the

necessary selling power or an adequately designed product to appeal to potential clients (Popa & Cernica, 2011). After the official launch of the feasibility study report, the intensity of debate on VHI has significantly decreased.

3.5.2 Market structure

VHI is provided only by private insurers. In 2010, there were nine private insurers on the market providing VHI and employing an estimated 30 specialists in this area; however, 92.3% of collected VHI contributions were concentrated in just three private insurers (Popa & Cernica, 2011). VHI is usually purchased by employers with highly profitable enterprises (including those with foreign capital) that are already part of the MHI system but have supplementary VHI as an employment benefit. People with certain diseases and conditions are excluded from VHI cover, including those with disabilities, substance abuse problems, psychoneurological disorders, TB and STIs. There are no established age limits but those with certain illnesses can be excluded or enrolled at higher premiums.

3.5.3 Market conduct

All private insurers currently active in the Republic of Moldova are for-profit. Basic insurance premiums (covering outpatient and inpatient care) makes up about 12–15% of the insured sum, which in absolute terms means an annual premium of MDL 3000–4000 (about US$ 280–360). The insured sum (benefits) usually does not exceed the ceiling of MDL 25 000–30 000 (about US$ 2000–2500), 70% of which can be taken up by inpatient care and 30% by outpatient care. Clients can opt for an extended package of services, in which case the premium and insured sum may increase to two to three times this amount. Administrative costs take up about 30–35% of the insured sum. The range of benefits covered includes emergency care, outpatient care, home care, hospital care and dental care. The costs of services are covered directly by the private insurer, who reimburses them to the provider. The benefits can also be provided in cash, for example by reimbursing costs incurred by the patient for the purchase of medicines (Popa & Cernica, 2011).

Private insurers do not have their own providers and can contract with both public and private providers available on the market. The remuneration of public providers corresponds to the tariffs established by the government. Private providers establish their own prices for services and the level of remuneration is negotiated with the insurer.

In 2010, the total profit of the nine private insurers involved in VHI was MDL 154.9 million (US$ 13.2 million). Such profits are extremely small and do not allow for any investment in such an expensive area as health care.

3.5.4 Public policy

The VHI market is regulated by the National Commission of Financial Market. The legal base for regulation is the Law on Insurance (No. 407, 21 December 2006). For the time being there are no tax incentives or disincentives to take up VHI at the national level.

3.6 Other financing

3.6.1 Parallel health systems

The Ministry of Internal Affairs, the Ministry of Defence, the Ministry of Transport and Road Infrastructure, the Ministry of Justice (Department of Penitentiary Institutions), the Border Service, the Information and Security Service and the State Chancellery have their own health care networks, working in parallel with those under the Ministry of Health. These parallel health systems function under the same general health policy established by the Ministry of Health but have their own financial and administrative resources, although all of the facilities (except the medical institutions of the Department of Penitentiary Institutions and the Border Service) have signed contracts with the NHIC. The Ministry of Health regards the existence of parallel health systems within other ministries and services as contributing to inequities in the distribution and use of health services, as well as to supplementary expenditures for health, which, in fact, are not made public as their financing comes from the total allocations for those ministries and services, with the notable exception of services provided under the State Chancellery.

All enterprises and organizations with more than 300 employees are also obliged to create their own medical services, which are intended to provide mainly first aid and to monitor the employees' health status. Most schools and kindergartens also have medical offices, usually staffed by a nurse responsible for the provision of first aid, health promotion and disease prevention (including vaccinations). These are funded by the educational authorities, which in their turn are funded by local public authorities. Again, there is no information available on the level of funding for these services.

The main challenges imposed by the parallel health systems are related to the duplication of services and waste of budgetary resources. There are currently extended discussions and suggestions regarding the placement of parallel health services under the authority of the Ministry of Health, and the strategy of the Department of Penitentiary Institutions aims to achieve just that; however, no concrete initiatives or decisions have been made so far for the other parallel networks.

3.6.2 External sources of funds

In 2010, 9.6% of total health expenditure came from external sources in the form of project-based donations and loans from transnational actors such as the EU, the World Bank, the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and various agencies of the United Nations (see Table 3.3). Altogether, through different aid modalities, official development assistance disbursed in 2011 to the health sector of the Republic of Moldova was US$ 51.9 million, most being spent on programmes targeting communicable diseases rather than noncommunicable diseases. Primary care and hospital care sectors receive much more official development assistance and humanitarian assistance than do emergency care or public health, but most official development assistance comes in the form of technical assistance. See also section 2.1.

3.6.3 Other sources of financing

There are plenty of voluntary and charitable organizations (local and international) active in the Republic of Moldova, providing different types of assistance and care at the community level; however, many of them rely on donor funds for their activities. Their main areas of activity are HIV/AIDS, TB, mental health, home care and palliative care. The total volume of funding provided by or through such organizations is not known. The National Health Account matrix for 2010 estimated that NGOs contributed about 1.1% of total health expenditure. The Orthodox Church (which is the main faith in the country) has no health care institutions of its own and does not fund health services; however, it was actively involved in some health promotion and disease prevention activities by producing and disseminating information and messages on HIV and pandemic influenza.

3.7 Payment mechanisms

3.7.1 Paying for health services

Most health services (primary/ambulatory care, specialized ambulatory/inpatient care and pharmaceutical care in the case of compensated medicines) are funded through the NHIC on the basis of contracts (Table 3.5). The NHIC receives a share of funds from the state budget (see section 3.3.3). Apart from this, public health service providers may get additional funds from their "owners" (the Ministry of Health or local authorities), mainly for capital investments. Publicly owned health services are funded mainly from the state budget, but they can also benefit from external assistance and provide services for fees. National public health programmes are implemented by state and non-state health services providers and are funded through the state budget and the MHI system. Some of them have also benefited from extensive external assistance, particularly for HIV, TB and vaccinations.

Table 3.5
Provider payment mechanisms

	Ministry of Health	Other ministries	NHIC	VHI	Direct payments
General practitioners	–	S	C	FFS	–
Ambulatory specialists	–	S	C, per treated case (only for rehabilitation of drug users)	FFS	FFS
Other ambulatory provision	–	S	C	FFS	FFS
Acute hospitals	–	S	Per treated case, DRGs (nine pilot hospitals in 2012)	FFS, PD	FFS, PD
Other hospitals	–	S	Per treated case, PD (in TB)	FFS, PD	FFS, PD
Hospital outpatient	–	S	PD	PD, FFS	PD, FFS
Dentists	–	S	C	FFS	FFS
Pharmacies	–	–	FFS (reimbursed medicines)	–	FFS
Public health services	S	S	–	–	FFS
Social care	–	S	–	–	–

Notes: S: Salary; FFS: Fee for service; PD: Per diem; C: Capitation; DRG: Diagnosis-related group.

Purchasing mechanisms used by the NHIC have evolved over time and vary depending on the service. They contain both prospective and retrospective elements. Emergency medicine services were initially purchased on a fee-for-service basis; however, following the reorganization of emergency care in 2006 (see section 5.5), the services are financed prospectively on a per capita

basis plus additional retrospective quality-incentive bonuses for having doctors staffing the zonal emergency stations and if there is no divergence between the preliminary diagnosis given in pre-hospital care and the final clinical diagnosis.

From 2004, primary care services have been purchased on a per capita basis, but the incentives have been refined to better reflect variations in need. Initially, primary care services were funded prospectively according to a simple unweighted capitation estimate, using the resident local population as the denominator. From 2005, the per capita funding was combined with retrospective extra payments for achieving certain quality indicators, and from 2009 the capitation formula has been risk-adjusted (by age) and estimated based on the number of patients registered at a given practice. Retrospective "bonus" payments are made for providing TB care, care of women in the first trimester of pregnancy, providing gynaecological cytological screening examinations and care of children in the first year of life.

Secondary and tertiary care is purchased using different mechanisms depending on whether patients are treated as inpatients or outpatients. Since 2004, specialist outpatient care has been purchased prospectively using capitation, but it is hoped that there will be reform in this area so that specialist outpatient services can be funded using mechanisms such as diagnosis-related groups (DRGs), which are currently being developed and piloted for inpatient care. In 2004, hospital services were purchased retrospectively according to the number of patients treated, with extra sections for consultants being added in 2005 and for internal medicine in 2006. From 2008, contracting used global budgets for patients requiring long inpatient stays (such as psychiatric care), and from 2009 payments according to the number of treated patients for certain conditions (such as TB) was initiated. From 2011, inpatient TB care has been financed according to bed-days. From 2012, DRGs are being developed and piloted in nine hospitals around the Republic of Moldova. Case-based payments have been used in inpatient care to try to make more effective use of resources by increasing bed turnover, and the average length of stay has been falling (see section 4.1.2). Costings for payments per treated patient have been developed for 168 groups of conditions, and the development of these has provided useful experience for the introduction of DRGs. The hope is that the introduction of DRGs will help to improve quality of services as well as access, efficiency and equity.

3.7.2 Paying health workers

The payment of most health workers is regulated by the Government Decision on Approving the Regulation on Remuneration of Employees of Public Medical and Sanitary Institutions which are part of the Mandatory Health Insurance System (No. 1593, 29 December 2003) and is based on broader regulatory mechanisms for the remuneration of employees of institutions with financial autonomy. The main principle under this system consists of calculating salaries based on a pay rate salary for the first qualification category (which was MDL 750 (US$ 64) per month in 2012). This is approved by the government on an annual basis following a consultative process between the Ministry of Health, the NHIC and the trade unions. Salaries at different levels are calculated by multiplying the pay rate salary under the first qualification category by specific coefficients. The multiplying coefficients vary for different categories of health workers and increase with years of work experience (5–10 years, 10–15 years and over 15 years). The highest multiplying coefficients are those for family doctors in rural areas (from 2.35 to 5 times the first category salary). For surgeons, family and emergency doctors in urban areas, anaesthetists and pathologists, the coefficient ranges from 1.8 to 3.75. For other specialist doctors and pharmacists, the multiplying coefficient ranges from 1.75 to 3.75. Nurses and midwives have a multiplying coefficient for their salaries ranging from 1.45 to 3.25.

Apart from the basic salary calculated as above, health workers get additional increments for their professional qualification category. Currently, there are three professional qualification categories (see section 4.2.3) and the increments for them can range from 30% to 50% of the basic salary. Health workers can get additional increments to their salaries for years of service, working double shifts and night shifts, higher scientific degree and harmful working conditions (which include treatment of HIV, TB, alcohol and drug addiction, mental illness). In 2011, the average monthly salary for doctors was MDL 4134 (US$ 350), which was 125% of the national average monthly salary (MDL 3300 (US$ 281)); the average salary for nurses was MDL 2681 (US$ 228), which was 81% of the national average salary.

Medical facilities can spend a certain proportion of their income from MHI contracts on salaries. The maximum share is worked out annually through negotiations between the Ministry of Health, the NHIC and the trade unions. In 2012, the maximum share of funds allocated to salaries was 60% for primary care facilities and 55% for all other medical facilities (i.e. hospitals, specialized ambulatory care and emergency care centres). The existing salary

system disadvantages young doctors as they get lower salaries and are not well motivated. The Ministry of Health is committed to changing the system and there are discussions to exclude the differentiation of multiplying coefficients by the length of service and to have one single coefficient for the concrete working position that could be occupied by a health worker regardless of age.

Dentists and other specialists who are part of the MHI system but who also provide services for fees are paid according to the same principle, despite the difference in the main sources of income of the medical facilities where they work. Health workers involved in public health services, rehabilitation centres for children and school health services are paid according to different criteria, based on the Law on the Salary System in the Budgetary Sector (No. 355-XVI, 23 December 2005). This system also takes into consideration qualification categories, work experience and similar additional increments. However, salaries in the budgetary sectors are smaller than those under the MHI system.

4. Physical and human resources

4.1 Physical resources

4.1.1 Capital stock and investments

After dramatic cuts in the number of hospital facilities in late 1990s and early 2000s, from 2006 onward the number has remained stable at around 80 hospitals. At the end of 2010, there were 84 hospitals in the country (including two specialized clinics (dispensaries) with beds), including 34 district (*rayon*), 10 municipal, 18 republican (national) hospitals under the Ministry of Health and 11 hospitals belonging to other sectors, plus 11 private hospitals. Over 50% of the hospitals (18 national, 9 municipal, 8 parallel providers and 9 private) are located in the capital city, Chisinau. The primary care level at the end of 2010 consisted of 37 family medicine centres, covering 216 health centres, 556 family doctor offices and 359 health offices; there were also 46 autonomous health centres, covering 71 family doctor offices and 44 health offices. Additionally, the municipality of Chisinau has 5 territorial medical associations, covering 12 family medicine centres; five consultative and diagnostic centres; and 53 consultative departments (National Centre of Health Management, 2011). Family medicine centres and consultative and diagnostic centres provide both family medicine and specialized outpatient services.

Of the hospitals under the Ministry of Health, 17 were built before 1970, including 4 hospitals built at the end of the 19th century; 45 hospitals have been built since 1970, including 12 since 1990. Most of the hospitals have had no significant capital investment since independence and the obsolescent equipment ranges from 60% to 80% of stock (World Bank, 2009). The Evaluation of Hospital Safety conducted in 2009 and 2010 revealed structural safety problems in 10 (16.4%) of the institutions covered, most of them built at the end of the 19th and first half of the 20th century; the electricity and water supplies as well as sewerage networks in most hospitals were also found to have a high level of wear. Five hospitals were listed under safety group C,

meaning they failed "to ensure resilience to the impact of disasters and safe running of operations during emergencies" (Republican Centre of Disaster Medicine, 2010).

The only formal survey on the condition of facilities in primary care was conducted in 2007 as part of the ongoing World Bank project on *Health and Social Assistance Services*, which began in 2007 (Ciurea, 2007; World Bank, 2012a). It resulted in the creation of the Geographic Information System and a database of assets, equipment and human resources, and a Master Plan for Rationalization. The project has a capital investment component focusing on primary care. In 2010, the full renovation of seven health centres and one family doctor office was finalized and another 18 health centres were being repaired (Ministry of Health, 2011b). Altogether, 36 health centres and family doctor offices have been renovated since the start of the project and another 38 are due to be renovated in 2011–2013. The World Bank project will also contribute €2.7 million, together with €3 million from the EU and €9 million from the Council of Europe's Development Bank, to capital investment in the Republican Clinical Hospital – one of the biggest teaching hospitals in the country. The investment will fund the building of a new operating theatre and full renovation of the first floor of the existing building.

A National Hospital Master Plan was developed by the Ministry of Health in 2009 with support from the World Bank and it reflects the government's plans for developing the hospital sector up to 2018. It focuses on the regionalization of hospital services at the local level and the consolidation of the hospital network in Chisinau. New studies are now being initiated to develop plans for (1) the centralization/regionalization of specific services to Cahul and Balti hospitals, starting with chemotherapy and radiotherapy services for cancer treatment; (2) developing long-term care services in the Republic of Moldova; and (3) "operationalizing" the conclusions of the Hospital Master Plan and further rationalizing the hospital network across the country, but specifically in Chisinau.

Investment funding

Capital investments are funded in several ways. The main source for capital investments is the state budget. The Ministry of Health makes yearly proposals under the Law on State Budget for capital investments in the health sector. In 2010, allocations for capital investments from the state budget totalled MDL 19 874 600 (Law on State Budget, No. 133, 29 December 2009); with MDL 15 934 100 being used for the reconstruction of three health facilities (Ministry of Health, 2011b). In 2010, a new expenditure line was introduced in the Law on Mandatory Health Insurance Funds, marking the creation of a

fund for the development and modernization of public health care providers that could be used for capital investments and the procurement of equipment on a competitive base through specific development projects submitted by health care providers. In 2011 alone, this fund received over MDL 55 million (Law on Mandatory Health Insurance Funds, No. 55, 31 March 2011), which were used for the capital investment projects. Apart from this, based on the existing legislation, health care providers can make up to 10% savings from the funds allocated by the NHIC for service provision and use these savings for capital investments. Local public authorities as founders of the health facilities can also contribute to the renovation of their facilities. Resources generated through the provision of private services may also be directed to capital investments. Providers can also take out bank loans on a commercial basis and use them for development purposes. Lastly, health care providers can rent out some of their unused goods and premises or even sell them and use the proceeds for capital investment. However, despite all these possibilities capital investments remain extremely modest.

The Law on Public–Private Partnership (No. 179-XVI, October 2008) created the necessary premises for attracting private investments in the public sector. However, public–private partnership (PPP) projects are still at the pilot stage. The Ministry of Health showed great interest in this new opportunity and has adjusted the health legislation (including the Law on Health Protection of 1995) to eliminate barriers in the development of PPPs in the health sector. A special Government Decision, On Public–Private Partnerships in the Provision of some Health Services, was issued in December 2010. Based on this Decision, two PPP projects are currently under development in partnership with the International Finance Corporation: the diagnostic imaging services in the Republican Clinical Hospital and the radiotherapy services in the Institute of Oncology. The former is more advanced, the tender being already organized and renovation work started. There are ambitious initiatives to further develop PPPs for the neurological rehabilitation services, hospital waste management services and future regional hospitals. However, the existing experience of PPPs is still modest; health managers have little knowledge about PPPs and the local commercial banks have little interest in financing such initiatives. The Ministry of Health also has very limited capacity to design and monitor the performance of PPPs.

Significant investment funding is made through donations and grants. Apart from World Bank support in construction and renovation at the primary care level and for the Republican Clinical Hospital, the reconstruction of the TB Hospital in Vorniceni (which specializes in multidrug-resistant TB) has been

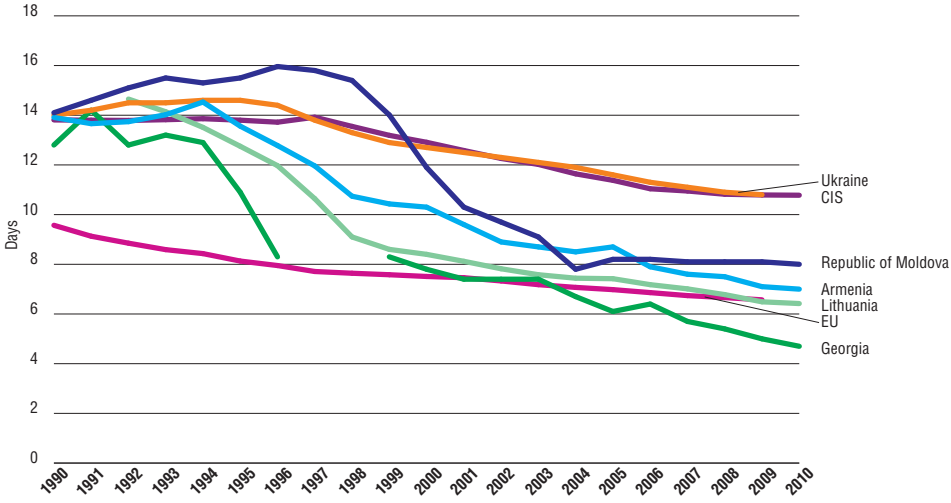
carried out with GFATM support, the full rehabilitation of the regional Blood Transfusion Centre building in Cahul with the Romanian Government support, and the construction of a new module for the molecular diagnosis of avian influenza and the renovation of the Laboratory of Viral Respiratory Infections with World Bank support. The Swiss Development Cooperation Agency has also provided support for the creation of a community mental health centre (CMHC) within the Clinical Psychiatric Hospital.

4.1.2 Infrastructure

The average length of stay in hospital was 16 days in 1996 and it dramatically decreased in the late 1990s and early 2000s when major reforms related to the consolidation of the hospital sector and the development of family medicine took place. It has stabilized at around nine days after the introduction of MHI in 2004, being lower than the CIS average but still not reaching the EU average (Fig. 4.1).

Fig. 4.1

Average length of stay in the Republic of Moldova and selected countries, acute care hospitals only, 1990–2010

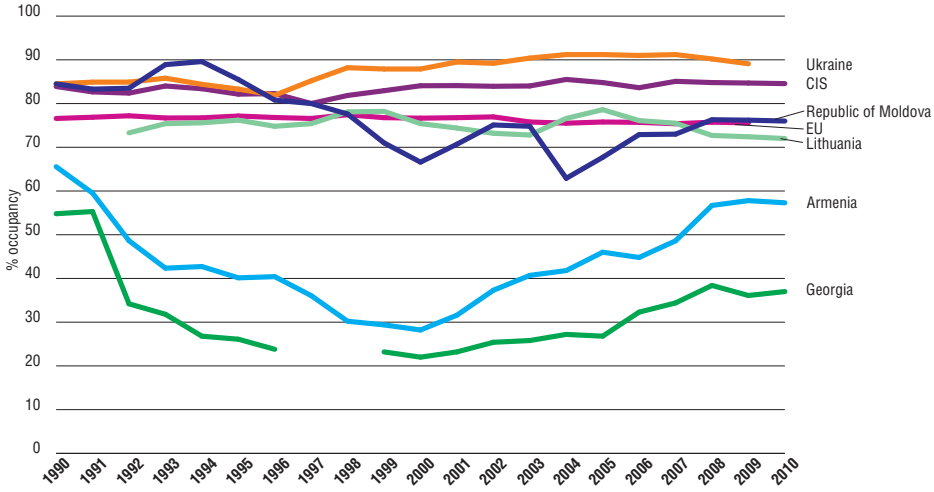


Source: WHO Regional Office for Europe, 2012b.

The bed occupancy rate has shown a continuous increase after the introduction of MHI in 2004. This probably reflects improved access to services rather than greater operational efficiency as no major developments in the hospital sector took place in that period (Fig. 4.2).

Fig. 4.2

Bed occupancy rate in the Republic of Moldova and selected countries, acute care hospitals only, 1990–2010

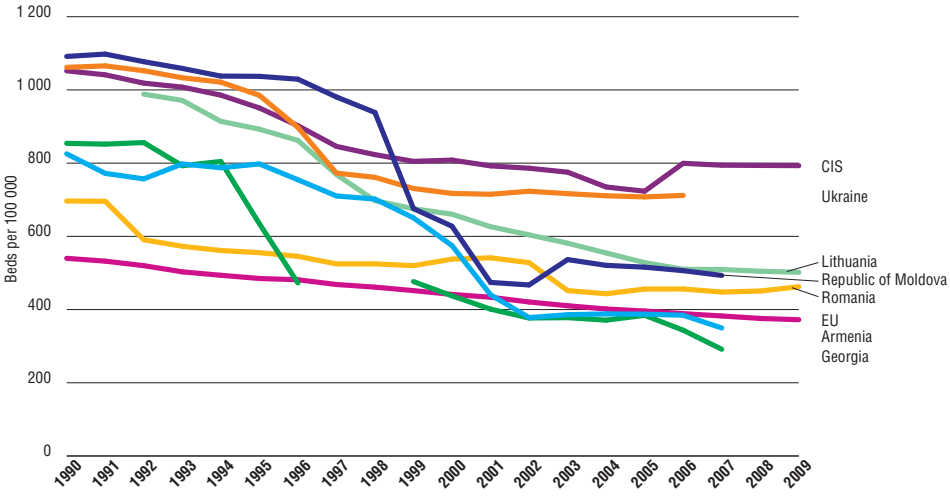


Source: WHO Regional Office for Europe, 2012b.

In late 1990s and early 2000s, the Republic of Moldova reduced the number of acute hospital beds much more rapidly than other countries in the region (Fig. 4.3). Again, the situation stabilized after 2004 and a further reduction in

Fig. 4.3

Acute care hospital beds per 100 000 population in the Republic of Moldova and selected countries, 1990–2009



Source: WHO Regional Office for Europe, 2012b.

the number of beds could now only be achieved if the Hospital Master Plan is implemented. There have not been any significant changes since the previous HiT was published (Atun et al., 2008).

4.1.3 Medical equipment

Generally, basic equipment is available in sufficient quantities at all levels of health care. The main problems are related to the coexistence of new and old obsolete technologies, potentially leading to breaks in work chains and poor quality of services through the malfunctioning of old technologies and the inefficient (below their optimal operating capacities) use of medical devices when available. The diagnostic imaging technologies available to the public sector comprise one magnetic resonance imaging unit and eight computed tomography scanners. The situation in the private sector is not well known, but anecdotal evidence suggests that an increasing number of modern diagnostic imaging technologies have recently been made available through private clinics and diagnostic centres.

The procurement of medical equipment is regulated by two Government Decisions: On the Setting of Conditions for the Marketing and Use of Medical Devices (No. 96, March 2007) and On Approving Regulation for the Procurement of Medicines and Other Products with Medical Destination (No. 568, September 2009). Centralized procurements from budgetary resources are organized by the Medicines Agency and are destined for national and special programmes, such as the TB programme. Medical facilities can also buy certain types of medical equipment from their own reserves and extrabudgetary resources after coordinating this with the Ministry of Health and getting official approval. A significant amount of equipment has been provided through humanitarian aid and development projects. For example, in 2009, the EU-supported project *Support to the Health Reform: Strengthening Primary Health Care in Moldova* provided basic modern equipment to rural health centres, autonomous health centres and family medicine centres to a value of €3.9 million; in 2010, the Swiss Development Cooperation Agency equipped the paediatric emergency and intensive care services under the project *Regionalization of Paediatric Emergency and Intensive Care Services in the Republic of Moldova* and supported the piloting of a health technology management system; in 2009–2010, the Government of Japan provided modern equipment for the district hospitals in Criuleni and Anenii-Noi and for the National Scientific and Practical Centre of Emergency Medicine under the KUSANONE grants programme.

The Ministry of Health has also developed a Law on Medical Devices that was presented to parliament for approval but was then returned for revision and adjustment to fit with international/EU standards in this field; it was then approved by parliament on 26 April 2012. The new law will allow the creation of a health technologies regulatory unit or department and the initiation of a series of actions for its enforcement. Currently a Department of Medical Devices Management is operational, but it mainly deals with import authorization and monitoring the use of equipment. An electronic inventory of medical devices is under development but still not operational.

The management of medical devices at the institutional level is limited to maintenance, which is also problematic because of the coexistence of old and modern technologies and the lack of qualified specialists in this area. In most cases, maintenance is delegated to the private sector.

4.1.4 Information technology

A study by the Institute of Public Policy in 2011 revealed that 41% of the population had used personal computers during the last 12 months and 38% had accessed Internet (Institute of Public Policy, 2011).

According to the National Bureau of Statistics, the number of computerized legal entities in the field of health and social services has steadily increased, from 120 in 2005 to 272 (of which 247 possessed computer networks) in 2010, and the number of personal computers possessed by people working in this field increased from 1717 in 2005 to 6582 in 2010 (of these, 4257 had access to the Internet) (National Bureau of Statistics of the Republic of Moldova, 2010).

Despite recent efforts to develop an integrated informational system in the health sector, there is still a lot of fragmentation and unfinished work. An automated information system for primary health care called MEDEX 2.0 has been developed as part of the EU-supported project *Support to the Health Reform: Strengthening Primary Health Care in Moldova*. The software was first piloted in the territorial medical association "Centru" in Chisinau, with a view to rolling it out to the other territorial medical associations. Family doctors from 43 institutions were trained in how to use the software. Meanwhile, another software package for primary care, "Cabinet Manager", was developed in parallel by the Primary Health Care Clinic of the State University of Medicine and Pharmacy "Nicolae Testemitanu". A modified version of the latter is in use at the National Scientific and Practical Centre of Neurology and Neurosurgery. Both systems have been integrated into clinical processes and are used on a daily basis; however, reporting to the NHIC is not done electronically but via

printed reports. The Ministry of Health has created a special working group to evaluate the "pros and cons" of these systems and to identify the most suitable one for nationwide implementation.

Separate information systems for monitoring and evaluating the national HIV/AIDS and TB programmes have been developed within the GFATM assistance projects and are used within the National Centre of Health Management. The NHIC and the Medicines Agency also have their own information systems.

At the hospital level, the situation is even more fragmented, as every big hospital in the capital city has tried to develop its own information system, using either internal resources or hiring software developers from the private sector in the country and internationally. As with primary care, the Ministry of Health has created a working group to decide on the best version to be scaled up.

The Swiss Development Cooperation Agency has funded two information and communications technology and health-related projects in the Republic of Moldova: the *Moldova Swiss Perinatology Project* and the *Regionalization of the Paediatric Emergency and Intensive Care Services in the Republic of Moldova*. In addition to the clinical components, a health technology management system, OpenMEDIS, was developed to ensure sustainable equipment maintenance systems in paediatric and perinatal care. Since 2009, OpenMEDIS manages more than 4500 medical devices in 37 facilities and there are also plans to scale this up.

Telemedicine activities in the Republic of Moldova have been more akin to pilot projects or short-term initiatives within one or a few institutions.

The introduction of e-Health is part of the portfolio of e-services and e-registries to be developed under the larger project Governance e-Transformation. An innovative project for online appointments for consultations with specialists and diagnostic services in the Republican Diagnostic Centre started in 2011. The priorities for 2012 include the development of an integrated medical information system for hospitals and of an automated information system for primary health care.

4.2 Human resources

4.2.1 Health workforce trends

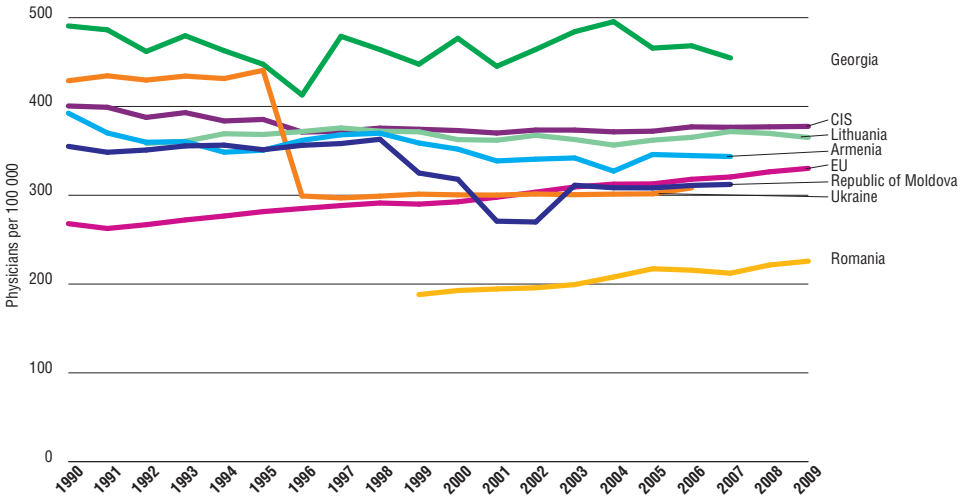
At the end of 2010, the Republic of Moldova had a total of 12 780 doctors working in the public, private and parallel systems (of these 1666 were dentists and 562 were public health specialists). These doctors worked in various

sectors: 39% in the hospital sector, 21.5% in primary care, 21.5% in specialized outpatient services and 15.8% in other health care institutions. The distribution of doctors is uneven both geographically and by sectors. In Chisinau, the human resources for health institutions under the Ministry of Health has reached 94.1%, while in the north of the country it is 92.1%, in the centre 82.0% and in the south just 77.9%. The hospital sector achieves 91.3% of its human resource needs, but primary care achieves only 88.7% and specialized outpatient care 88.3% (National Centre of Health Management, 2011).

At the end of 2010, there were a total of 35.9 doctors per 10 000 inhabitants (Fig. 4.4); however, coverage for doctors involved directly in curative and prophylactic service provision (excluding dentists) was 25.8/10 000. There were 5.3 family doctors per 10 000 and 25.9 specialist doctors per 10 000 (National Centre of Health Management, 2011). At the district level in rural areas, there are half as many doctors per capita as there are in municipalities (Ministry of Health, 2011b). Another observed trend is the "feminization" of the medical profession, with 60% women at the end of 2010 (Ministry of Health, 2011b).

Fig. 4.4

Physicians per 100 000 population in the Republic of Moldova and selected countries, 1990–2009



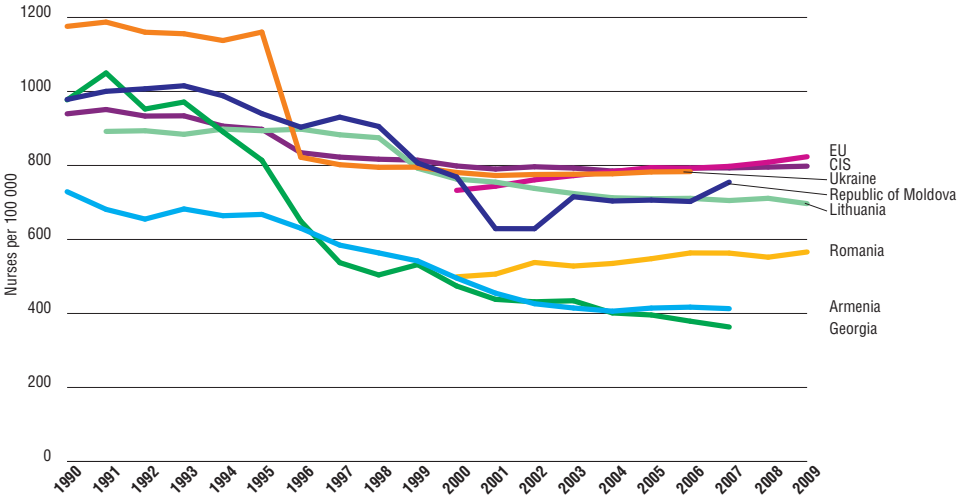
Source: WHO Regional Office for Europe, 2012b.

The total number of mid-level health personnel was 27 519 at the end of 2010, of these 20 746 were nurses (Fig. 4.5), 5343 were family medicine nurses, 790 were midwives and 1860 were laboratory personnel. Of these mid-level

health personnel, 43.4% worked in the hospital sector, 32.7% in primary care, 10.9% in specialized outpatient care and 13.2% in other medical institutions (National Centre of Health Management, 2011).

Fig. 4.5

Nurses per 100 000 population in the Republic of Moldova and selected countries, 1990–2009



Source: WHO Regional Office for Europe, 2012b.

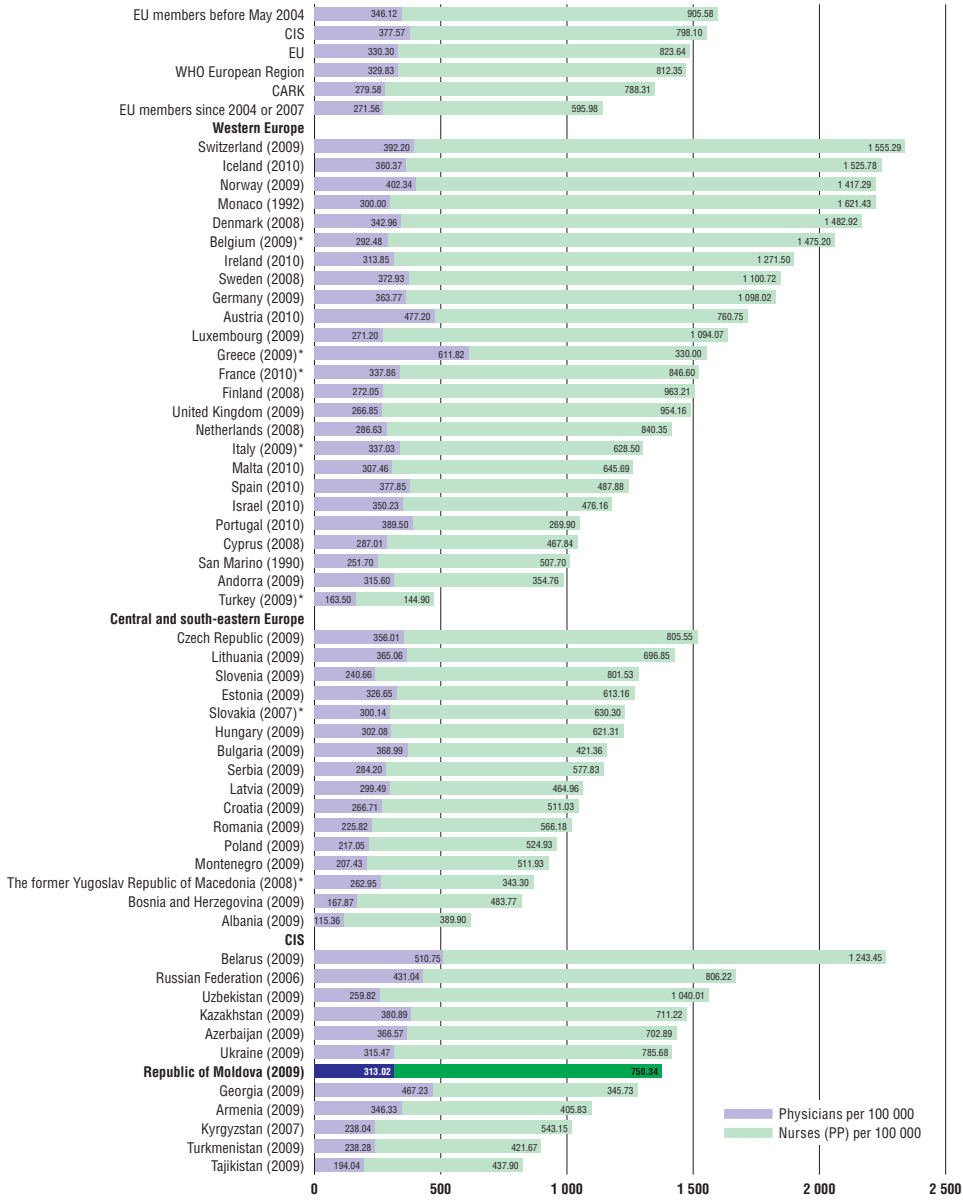
Total coverage with mid-level health personnel was 77.3 per 10 000 population: 58.3 nurses, 15.0 family medicine nurses, 2.2 midwives and 5.2 laboratory workers (National Centre of Health Management, 2011). Although it appears as though there has been a recovery in the number of nurses since 2002, their number has actually remained reasonably stable – the change in the per capita rate instead reflects the shrinking population.

The number of both doctors and mid-level health personnel is currently lower than the EU average (Figs. 4.4–4.6), but the biggest discrepancy is in coverage with family doctors: there are 5.2 per 10 000 population in the Republic of Moldova compared with 8.5 as the EU average (Ministry of Health, 2011b).

Since 2000, the private pharmaceutical sector has flourished, with several big networks being rapidly established and most of them offering 24/7 services. The demand for and supply of pharmaceutical workers has, therefore, increased (Fig. 4.7). At the end of 2010, the total number of pharmaceutical workers was 3005 (8.4/10 000 population), of whom 1779 (5.0/10 000) were pharmacists and

Fig. 4.6

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

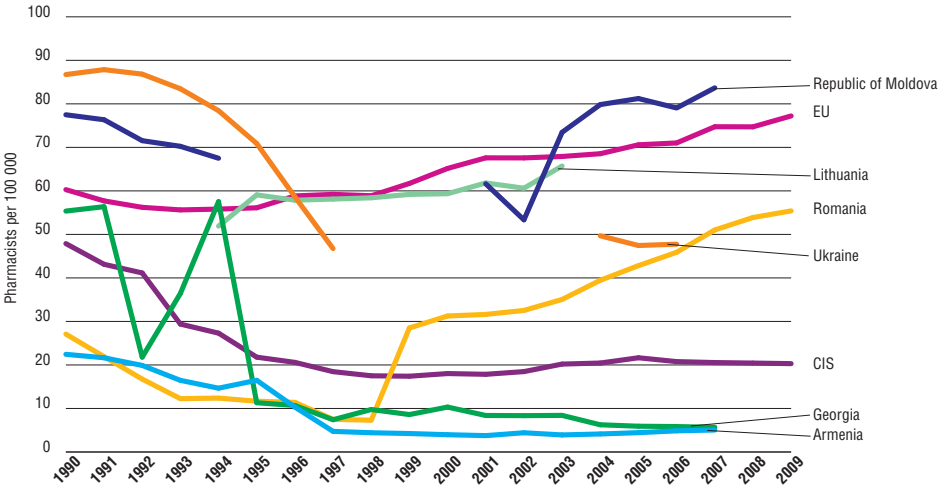


Source: WHO Regional Office for Europe, 2012b.
Notes: CARK: Central Asian Republics and Kazakhstan; PP: Physical persons; *all nurses (professional and associate), licences to practise, professionally active.

1226 (3.4/10 000) were pharmaceutical laboratory staff (National Centre of Health Management, 2011). Similarly, the growth in private dental practice has led to increased demand for and supply of dentists (see section 5.12 and Fig. 4.8).

Fig. 4.7

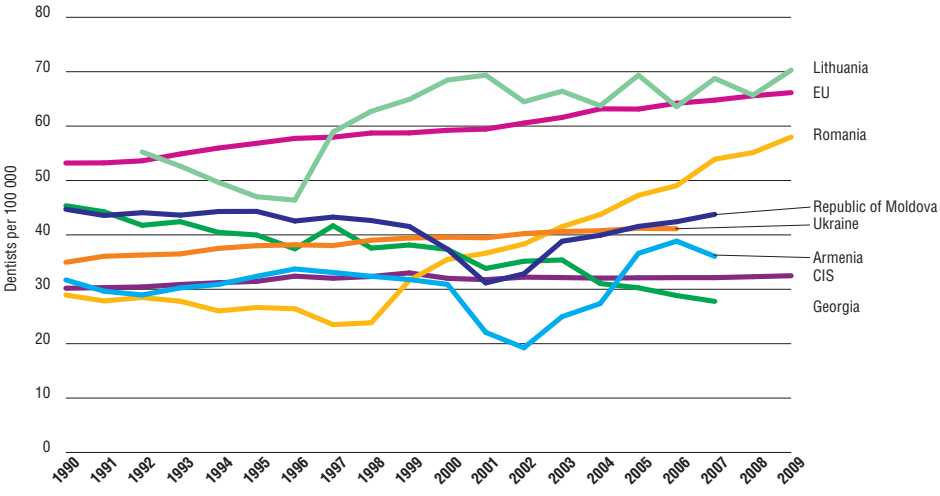
Pharmacists per 100 000 population in the Republic of Moldova and selected countries, 1990–2009



Source: WHO Regional Office for Europe, 2012b.

Fig. 4.8

Dentists per 100 000 population in the Republic of Moldova and selected countries, 1990–2009



Source: WHO Regional Office for Europe, 2012b.

4.2.2 Professional mobility of health workers

Since independence, more than 40% of health workers left the Moldovan health system, many of them having migrated abroad. Consequently, in institutions under the Ministry of Health the number of doctors fell from about 16 000 in 1990 to about 10 000 in 2010, and the number of mid-level health personnel fell from about 46 000 to about 23 000 (National Centre of Health Management, 2011). In 2010 alone, the number of employed doctors fell by 165 and the number of employed mid-level health personnel by 152 (Ministry of Health, 2011b). It has been estimated that 2000 nurses migrate abroad every year (Palese et al., 2010). At the beginning of 2011, there was a shortfall of 1031 doctors (including 286 family doctors) and 916 nurses (including 283 family medicine nurses) (Ministry of Health, 2011b).

The main countries of destination for Moldovan health workers are Italy, Romania and France (Italy being particularly popular among mid-level personnel), and the main reasons for leaving the country are low salaries, poor working conditions and obsolete technologies, lack of opportunities for professional growth, increased health hazards, lack of proper living conditions and infrastructure at community level (Jelamschi, 2011). Health workers who remain in the Republic of Moldova but who work in other sectors probably chose a change of career for similar reasons.

The migration of health personnel leads to both "brain drain" and "brain waste". The latter phenomenon results from the fact that very few migrating doctors and nurses manage to find a job abroad that corresponds with their qualifications. Either they continue to work in the health sector but at a lower level of qualification or they work in totally different sectors (such as construction, transport, agriculture, etc.), which leads to the loss of skills and makes their reintegration on returning home extremely difficult (Palese et al., 2010).

The Ministry of Health has developed a Strategy for the Development of Human Resources for Health, with World Bank support, which aims to improve the situation by initiatives such as adjusting medical education to current needs, better planning of human resources and improving motivation of health personnel. In October 2011 a WHO/EU-supported project, *Better Managing the Mobility of Health Personnel in the Republic of Moldova*, was officially launched. The main objectives of the project are to expand the information and knowledge base about the migration of Moldovan health professionals,

to promote/facilitate circular migration and thereby decrease the risk of brain waste and to facilitate the reintegration of health workers returning to the Republic of Moldova.

4.2.3 Training of health care personnel

The training of doctors in the Republic of Moldova occurs in a single medical school, the State University of Medicine and Pharmacy "Nicolae Testemitanu", which opened in Chisinau in 1945. The training of mid-level health personnel takes place in five medical colleges, located in Chisinau, Balti, Orhei, Ungheni and Cahul. Doctor training entails six years of undergraduate education for physicians and dentists or five years of undergraduate education for pharmacists and specialists in public health, plus postgraduate training through residency programmes and fellowship training in one of 32 specialties. The duration of a residency is currently four years for surgical specialties (except neurosurgery, for which it is five years), three years for the therapeutic specialties and two years for specialists in pharmacy and public health. The internship programme lasts two years. Currently about 5500 students are studying at the medical university, including international students from 26 countries. A peculiarity of the Moldovan medical education system is that the residency programme is run by the medical university, which has a special Faculty of Residency and Internship Training. Thus all residents are affiliated to and get a scholarship from the medical university. Another peculiarity is that there is no single university teaching hospital. The clinical chairs of the university are spread throughout all the big hospitals in the capital city, and the undergraduate and postgraduate clinical training takes place in 72 medical and public health institutions all over the country. The medical university has also its own primary health care clinic and dental clinic, and there is a School of Public Health. In addition, a modern simulation centre for medical procedures is being created within the EU direct budgetary support programme.

The training programmes for mid-level health personnel vary between three and five years. The medical colleges produce nurses, midwives, *feldshers*, dental technicians, mid-level hygienist/epidemiologists and laboratory personnel. The number of students in all medical colleges reached 4500 in 2010 (Government of the Republic of Moldova, 2010a). From 2016, the medical university plans to open a new faculty for training nurses, midwives and kinetic therapists at degree level (Ministry of Health, 2011a).

Continuous medical education is regulated by the Law on the Exercise of Medical Profession (2005). According to this law, every doctor is obliged to accumulate a certain number of continuous training hours and to pass an examination every five years confirming the previous qualification or awarding a new category of qualification (altogether there are three categories; see below). The medical university has a special Faculty of Continuous Education that organizes continuous training courses and periodic examinations. The continuous education of mid-level health personnel is the responsibility of the Department of Continuous Education of the National College for Medicine and Pharmacy in Chisinau (covering the southern and central parts of the country) and a centre of continuous education for mid-level health personnel in Balti (covering the northern part of the country).

In 2010, the Development Programme of the Medical and Pharmaceutical Education in the Republic of Moldova for 2011–2020 was approved (Government Decision No. 1006, 27 October 2010). In line with this, the Development Strategy of the State University of Medicine and Pharmacy "Nicolae Testemitanu" for 2011–2020 was developed and approved (Government of the Republic of Moldova, 2010a; Ministry of Health, 2011a). The overall goals of these strategic documents are to modernize the medical education system and adjust it to EU and World Federation for Medical Education standards and practices, as well as to the standards and quality of higher education qualifications outlined in the Bologna Process. It is planned that the length of residency programmes will increase to five to six years for surgical disciplines, three to four years for therapeutic disciplines and three years for disciplines related to the pharmaceutical and public health sectors (Jelamschi, 2011).

4.2.4 Career paths for doctors

Doctors start their careers as residents. Although at this stage they are still affiliated with the medical university (see above), their activity as residents is counted in their record of service. Shortly after finishing the residency programme (after reaching five years of recorded service), young doctors may apply for the first examination to acquire a qualification category. If they successfully pass the examination, they get the second category of qualification. Subsequently, they are obliged to apply for the higher qualification categories (first and superior) or to reconfirm their existing category every five years with the precondition of acquiring a certain number of credits. In May 2011, the Ministry of Health approved two new regulations: the new Regulation on the Attestation of Doctors and Pharmacists and the Regulation on the Quantification of Credits under Continuous Medical Education. According to the latter, a

doctor should accumulate 325 credits in order to apply for a new category or reconfirm their existing one; of these, 250 credits should be obtained through continuous education programmes and 75 through participation in scientific events, such as congresses, conferences, workshops or publications. For mid-level health personnel, the system is similar and the number of necessary credits to be accumulated is 200 (150 and 50, respectively). The qualification category is awarded by national commissions comprising senior specialists in the field and approved by the Ministry of Health. The composition of the commissions should be modified at least once every four years. There is also a central commission, chaired by the Minister of Health, in charge of resolving any litigation regarding the specialized commissions.

In parallel, doctors can get promoted to different levels within the institution where they work. Those who are more experienced and skilled can become heads of teams or departments and the decision on this is usually taken locally (within the institution) by the hospital management. Sometimes, well-performing doctors can be transferred from the district to national institutions belonging to the Ministry of Health. This is done by ministerial decree, following coordination with the management of the district institution. Doctors can move between similar departments of the same hospital; however, there is little movement of doctors between hospitals or clinics. In theory, the promotion of a doctor to a high managerial position, such as chief doctor of a hospital, is carried out on a competitive basis through a nationwide recruitment procedure. The selection process should be organized by the Ministry of Health (rather than the hospital), which announces the successful candidate; following this, the local public authorities sign a contract with the selected person. However, in practice, the process is often less transparent (see section 5.4). The remuneration of doctors depends on their working records, the category of qualification and the so-called "intensity of work", which is established by the local management (see section 3.7.2).

5. Provision of services

5.1 Public health

The public health service of the Republic of Moldova is undergoing fundamental reform. A new Law on State Surveillance of Public Health (No. 10-XVI) was approved in 2009, marking a shift from the old-style sanitary-epidemiological system focusing on communicable disease control and sanitary inspection to a more modern approach for public health, with more emphasis on noncommunicable disease control, health promotion and disease prevention. In 2010, the regulation setting up the SSPHS and its staffing was approved (Government Decision No. 384, 12 May 2010), and this paved the way for the creation and strengthening of noncommunicable disease control and health promotion units at central and local levels. In 2011, the State Programme for the Development and Technical/Material Outfit of the SSPHS for 2011–2016 and the list of fees for public health services were approved.

The current public health service network comprises the NCPH located in Chisinau, 2 municipal centres of public health (in Chisinau and Balti) and 34 district centres of public health, plus 7 departmental centres of public health in the parallel systems. The laboratory network consists of physical, chemical, microbiological, parasitological and radiological laboratories. The NCPH laboratories serve as reference laboratories for district/municipal laboratories and some of them are accredited by international bodies. All these laboratories are part of the National Network for Laboratory Observance and Control and can assess the physical, chemical and biological hazards present in the environment (including food and goods), in the workplace and in the educational and training environment. In the medium term, it is planned that the public health service will be regionalized, first by concentrating laboratory and other technical resources but then also by separating service provision from the control functions by creating a State Sanitary Inspectorate (Ministry of Health, 2012a).

The surveillance of communicable and noncommunicable diseases is regulated by the 2009 Law on State Surveillance of Public Health and a series of ministerial orders. Altogether, 72 diseases and 6 health conditions are to be notified to local centres of public health by family doctors and other health services as well as by laboratories. An electronic system of epidemiological warning is currently in place, comprising 34 territorial centres of public health, 7 centres of hygiene and epidemiology in Transnistria, 7 departmental centres of public health and 45 public medical facilities (Ministry of Health, 2011b). A list of diseases to be notified within 24 hours has been also approved. For example, outbreaks of foodborne diseases should be notified by primary health care, emergency care and other medical facilities to the Ministry of Health and NCPH within 24 hours. The reporting of other communicable diseases is carried out weekly, monthly, quarterly and annually through the submission of special forms. Apart from this sentinel surveillance, periodic household and behavioural surveys are conducted under the coordination of the NCPH.

The Republic of Moldova ratified the International Health Regulation of 2005 and the government approved the National Plan for its implementation in 2008; the National Plan consisted of 31 activities to be conducted under 10 ministries and services. The NCPH has been nominated as the national focal point for implementing the International Health Regulation because it is responsible for the notification, evaluation and communication of health risks and emergencies. Based on the National Plan, a special module on notification and evaluation of public health events of international concern was developed within the electronic system of epidemiological warning in 2010, in line with Annexes 1 and 2 of the International Health Regulation of 2005 (Ministry of Health, 2011b).

In order to implement the new public health legislation, a working group was set up in 2010 to evaluate the epidemiological situation regarding noncommunicable diseases and to identify priority conditions having a negative impact on public health. Altogether, 13 conditions have been prioritized and became part of the surveillance system (Ministry of Health Order No. 869, 27 December 2010).

The NCPH has a special unit responsible for environment and health issues and the surveillance of environmental factors influencing health. Data collection on environmental factors is carried out as part of "socio-hygienic monitoring". The NCPH prepares an annual report on environment and health. A biannual National Report on the Environment and Health is prepared jointly with the Ministry of Environment. Apart from this, the results of air quality

monitoring are made public quarterly by the joint monitoring system of the SSPHS and the "Hydrometeo" service under the Ministry of Environment. A new regulation on air quality adjusted to EU norms and standards has been developed by the NCPH and is awaiting government approval. The monitoring of water quality is also carried out jointly by the SSPHS, "Hydrometeo" and the Ecological Inspectorate of the Ministry of Environment. SSPHS is responsible for monitoring the quality of drinking-water, surface water and water in recreational areas. New water quality norms, harmonized with EU norms, were approved in August 2007 (Government Decision No. 934).

The surveillance of food safety and quality is carried out jointly by the SSPHS, the Sanitary-veterinary and Safety of Products of Animal Origin Agency under the Ministry of Agriculture and Food Industry, and the State Inspectorate for Consumer Protection. The SSPHS is responsible for the surveillance of products of non-animal origin and of materials in contact with food products. The new products are evaluated before being placed on the market and are registered by the Ministry of Health. The authorization of other goods (cosmetics, toys) is done in a similar way. In July 2007, the Chief Sanitary Doctor approved a decision banning the advertising of calorie-dense products in institutions for children.

The surveillance of occupational health and workplace safety is carried out by the SSPHS in collaboration with the Labour Inspectorate under the Ministry of Labour, Social Protection and Family. The SSPHS monitors the observance of occupational health legislation and evaluates temporary disability and occupational diseases. The NCPH has a special registry of occupational diseases. The NCPH produces an annual report on workers' health in relation to risk factors at their workplaces, which is published in the journal *Labour Security and Hygiene* and on the NCPH web site. The report is also sent to the National Social Insurance Fund. According to current legislation, employers have to organize periodical medical examinations of their employees and cover all the costs of such examinations. Moreover, enterprises with more than 300 employees are obliged to organize their own medical units. First aid for trauma and accidents at the workplace is provided by these medical units or by the ambulance service. The Order on the Organization and Functioning of Medical Rehabilitation and Physical Medicine Service in the Republic of Moldova (No. 432, 25 May 2011) regulates the organization of the occupational therapy services in public and private medical facilities, rehabilitation and social assistance services; it also makes an occupational therapist a member of multidisciplinary rehabilitation teams (see section 5.7).

The SSPHS has developed and is implementing a series of national programmes in the field of public health. The National Programme for the Promotion of the Healthy Lifestyle was approved in 2007 (Government Decision No. 658, 12 June 2007) and the Ministry of Health reports periodically on its implementation. The same Government Decision obliges public media to reserve broadcasting space for health education and health promotion. The Programme is quite comprehensive and intersectoral, identifying specific tasks for all ministries, agencies, services, academia and local authorities. The activities of the Programme include the development of a communication strategy in the field of health, the development of the curricula for health education as a mandatory subject in all school grades and scaling up the network of health-promoting schools, and building national capacities on health promotion in all sectors. Unfortunately, the Programme is underfinanced and activities under it are not systematic. The situation is similar for other programmes, the only exception being the National Programme on Immunization, which was more or less adequately financed. Many health promotion and education activities are implemented by NGOs within the projects supported by donor and development agencies. However, they have to get the approval of the Ministry of Health before launching such activities.

A new National Programme on Immunizations for 2011–2015 was approved in December 2010 (Government Decision No. 1192) in line with the WHO *Global Immunization Vision and Strategy* (World Health Organization, 2006). The Programme goal is to ensure free-of-charge vaccinations against TB, hepatitis B, polio, diphtheria, tetanus, whooping cough, measles, mumps, rubella, *Haemophilus influenzae* type b, rotavirus and pneumococcal infections. Vaccination rates are still high (94–99%) and the country has polio-free status (National Programme on Immunizations 2011–2015); however, anecdotal evidence shows a steady increase in refusal rates among parents, particularly in urban areas (see section 1.4). Therefore, additional efforts will be necessary within both the National Programme on Immunizations and the National Programme for the Promotion of the Healthy Lifestyle to maintain immunization rates above 95% over the period 2011–2015. The Global Alliance for Vaccines and Immunizations provides support to the National Programme on Immunizations. In 2010 alone, it provided 132 200 combined vaccine doses (DPT plus *Haemophilus influenzae* type b), 14 600 of them being offered to Transnistria.

Family planning services are provided at three levels: family doctors, family planning offices in the district hospitals and the National Scientific and Practical Centre of Reproductive Health, Medical Genetics and Family Planning.

The National Strategy on Reproductive Health for 2005–2015 (approved by Government Decision No. 913, 26 August 2005) set specific targets related to family planning.

- Contraception counselling should be part of primary health care by developing family planning services in each family medicine centre, health centre and family doctor office.
- The level of modern contraception should be higher than 50% (including hormonal contraception above 10% and voluntary surgical sterilization above 5%).
- Over 75% of the population should have information about family planning.
- The accessibility of family planning services should be improved.
- The quality of family planning centres should be continuously improved through the development and implementation of specific standards and guidelines.

The organization of perinatal care services has been updated by Ministerial Order No. 62 of 29 January 2010. According to this document, the service is also structured in three levels. The first level is represented by 26 district perinatal centres and 1 municipal perinatal centre in Chisinau (altogether 27). The second level comprises 10 more-advanced perinatal centres, which serve as regional referral centres for the first level: 8 located in district towns and 1 each in the municipalities of Balti and Chisinau. The third level is represented by the Institute of Scientific Research in the Field of Mother and Child Health Care (tertiary care institution in the capital city). The first level deals mainly with the management of physiological, uncomplicated pregnancies and births, while the second and tertiary levels accept more complicated cases and associated pathology needing a higher level of specialized care.

The Unified Programme, approved in December 2007 and modified in January 2009 (Government Decision No. 44), includes the cervical smear test as part of the family planning services provided within the specialized ambulatory care and a series of other prophylactic check-ups for cervical and breast cancer; however, these cannot be treated as screening programmes as they are not based on clear criteria for enrolment of target groups presenting no clinical signs. Policy recommendations for the development of national screening programmes for cervical and breast cancer were made in 2007 based on international experience and cost–benefit analysis within a project supported by the Department for International Development of the United Kingdom, but they have not yet been put into practice (Ministry of Health, 2010). In 2011–2012, the

NHIC provided financial support for pilot screening programmes for cervical and breast cancer in some territories but this is still far from a nationwide coverage. The *Roadmap 2012–2014* for Moldova, however, mentions the implementation of screening programmes for noncommunicable diseases at the level of primary health care as a short-term action to be implemented by the end of 2012 (Ministry of Health, 2012a). In 2008, the Ministry of Health also adopted methodological norms for annual preventive check-ups of the population (Order No. 504, 25 December 2008). According to the norms, the check-ups should include examination of lymph nodes, breasts and thyroid gland; gynaecological and rectal examination; measurement of blood pressure, eye pressure and electrocardiography; and biological tests. In 2011, the list of examinations and investigations during annual check-ups was updated (Order No. 743, 4 October 2011) in order to avoid duplications between the preventive check-ups and the check-ups conducted within the approved standards of care for children and pregnant women.

The new National Programme on Tuberculosis Control for 2011–2015 and the National Programme on Prevention and Control of HIV/AIDS and STIs for 2011–2015 were approved almost simultaneously in December 2010. While both these programmes are quite comprehensive and evidence-based, a general characteristic they share is an overreliance on external resources for their implementation. In 2011, two national programmes to reduce and eradicate iodine deficiency as well as iron and folic acid deficiency were developed and these were approved by the government in 2011 and 2012, respectively.

The Republic of Moldova has ratified the WHO Framework Convention on Tobacco Control (World Health Organization, 2003) and is currently struggling to implement its provisions in line with these commitments. In 2011, a comprehensive National Programme on Tobacco Control was developed and on 16 February 2012 it was officially approved by the government. Following this, a nationwide communication campaign targeting current and potential tobacco users was launched with WHO and EU support. The situation is similar in the area of alcohol control. A National Alcohol Control Action Plan has been developed and a nationwide communication campaign is due to be launched in the second half of 2012.

Oral health is not a priority issue on the public health agenda and is not systematically approached. Small projects on dental fluoridization were piloted among institutionalized children within humanitarian assistance projects and have been further scaled up with MHI funds (see section 5.12).

The Ministry of Health is committed to tackling inequality issues; however, evidence on this is scarce at the country level to inform policies. The study *Barriers and Facilitating Factors in Access to Health Services in the Republic of Moldova* was conducted in 2011 and identified much more serious problems in accessing primary health care services for the lowest two income quintiles of the population (World Health Organization, European Union & PAS, 2011). The objectives of the *Roadmap 2012–2014* are to increase equity in health services financing and access to services; this is going to be achieved through a series of priority short- and long-term actions, including full subsidies for health insurance for socially disadvantaged groups and insurance for unemployed family members, among others (Ministry of Health, 2012a).

5.2 Patient pathways

The MHI system has made the family doctor a genuine gatekeeper within the service provision. In order to fully benefit from the service package, every person facing a health problem should first consult his/her family doctor, who will decide if a further referral is needed. In rural areas, this is usually the pathway as there are simply no other services available. If specialist care is required, the rural family doctor will refer the patient to the specialized ambulatory clinic at the district hospital. The district specialist will investigate further and decide whether to admit the patient to the specialized department of the district hospital, refer the patient to the tertiary care level or refer the patient back to the family doctor: 41% of all inpatients in 2010 were referred by a specialist and 29.7% by the family doctor (National Bureau of Statistics of the Republic of Moldova, 2011). Box 5.1 gives an example of a typical patient pathway. The share of referrals from specialists has increased by 5.9% since 2008 and has decreased by 6.7% from family doctors (National Bureau of Statistics of the Republic of Moldova, 2011). Patients who received treatment in a secondary or tertiary care institution are discharged with an extract from the records and with recommendations for further ambulatory treatment and follow-up. They go back to their family doctors with this documentation and the family doctors are responsible for monitoring the fulfilment of all the recommendations. Some patients may benefit from rehabilitation services or spa treatment (see section 5.7). In some cases, patients might be requested to periodically go back to the tertiary care institution, bypassing the lower levels of care, for follow-up investigations and monitoring (e.g. after cardiac surgery). In urban areas, the pathways may differ as the spectrum of services available is much wider, including a higher number of private providers at all levels (family

doctors, ambulance services, hospitals). While most patients will go to their family doctor in a public health care facility in the first instance, some will look for a family doctor in a private institution (many of them being subcontracted by the NHIC). In urban areas, people also have recourse to emergency health care (ambulances) more readily, being directly transported to secondary or tertiary hospitals in case of need. Finally, some patients may directly self-refer to secondary and tertiary care facilities even though they have to cover the full costs of the treatment. Some patients from rural areas also choose to self-refer directly to tertiary care facilities in the capital. Every second person who had accessed health services in the last four weeks in 2010 went to a family doctor and every third person to a specialist (National Bureau of Statistics of the Republic of Moldova, 2011). The choice of pathway depends also on health insurance status and socioeconomic status. Therefore, insured patients prefer to go to their family doctors (55.3%), while uninsured patients go directly to a specialist (42.8%); also the wealthier the person, the more inclined he/she is to self-refer directly to a specialist (National Bureau of Statistics of the Republic of Moldova, 2011).

Box 5.1

Example of a patient pathway

In the Republic of Moldova, a woman in need of a hip replacement because of arthritis would take the following steps.

- During a free visit to the family doctor with whom she is registered, the family doctor refers her to the district hospital orthopaedic department.
- With a referral, there is no charge for any diagnostic tests or the consultation with a specialist. If she self-refers to a specialist, she will pay fee-for-service in full. If the diagnosis is confirmed, she is referred to the Republican Trauma-Orthopaedic Centre.
- With a referral, she has an outpatient appointment with a specialist orthopaedic surgeon (free of charge) to confirm the diagnosis and she will join the waiting list (waiting time currently about six months) unless her case is considered urgent. At this point, she can choose to pay fee-for-service to jump the queue or to go to a private hospital.
- The surgery will take place in one of two centres that have the capacity for such interventions. In theory, all the costs for surgery will be covered by health insurance, but many patients pay informally too. In addition, patients can choose to use more expensive prostheses, in which case they would make an OOP payment for these.
- Post-operative aftercare is provided by the district outpatient traumatology department free of charge, but care is coordinated by the family doctor until the final post-operative check after which, if there are no problems, she will be discharged.

5.3 Primary/ambulatory care

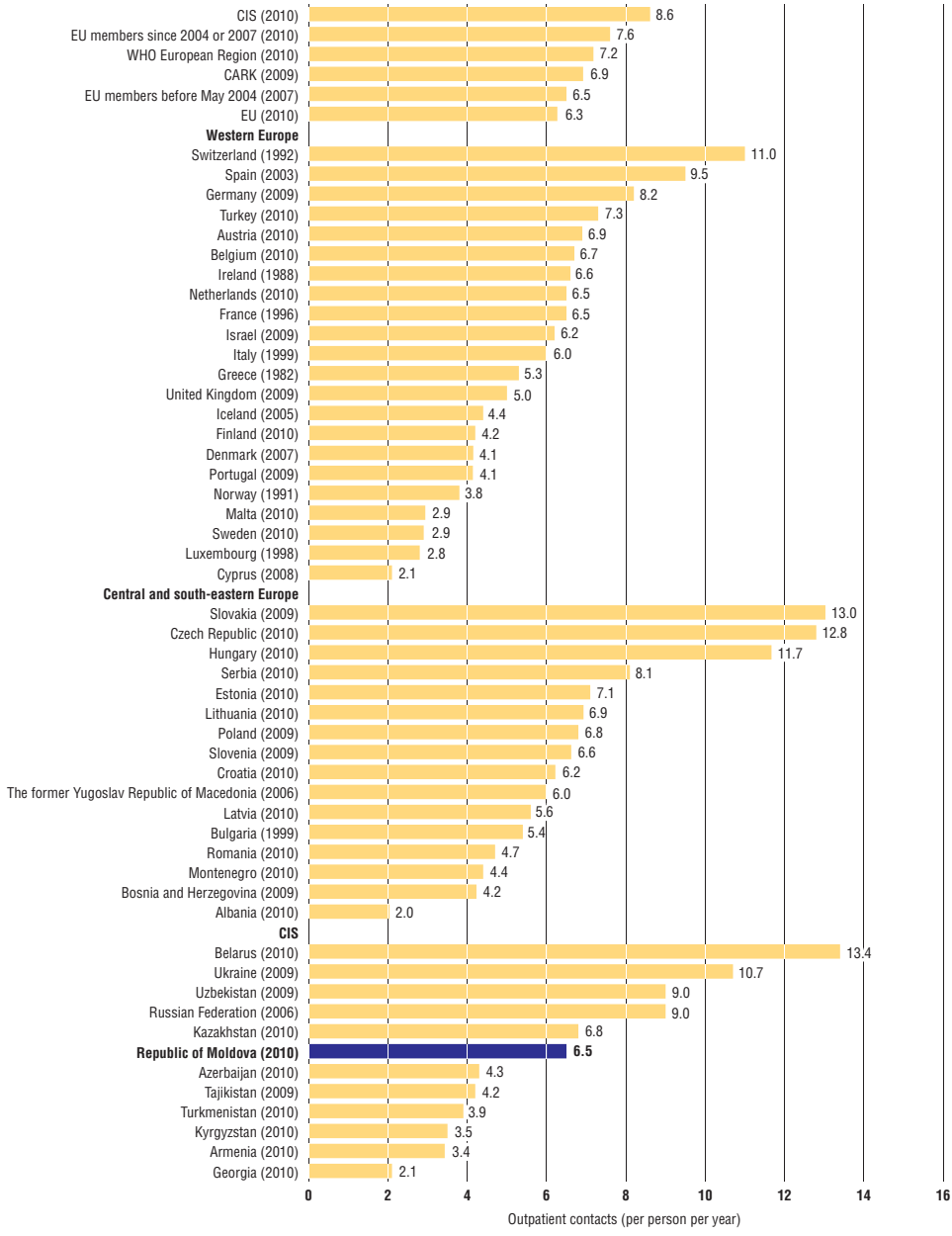
The network of primary care facilities is quite extensive. Geographical access to primary care facilities is, therefore, quite good and the number of outpatient contacts per person per year has reached and even exceeded the EU average in 2010 (Fig. 5.1), while in 2007 it was below the EU average (Atun et al., 2008). Moreover, the number of people (both insured and uninsured) who did not consult a doctor when they needed to has fallen since 2008, suggesting a dynamic improvement in access to services (National Bureau of Statistics of the Republic of Moldova, 2011). Among those who did not consult a doctor, only 2.9% gave distance as the main factor (National Bureau of Statistics of the Republic of Moldova, 2011). The geographical discrepancies in access are mostly related to the lack of family doctors and family medicine nurses in some areas, mainly in the south of the country (see section 4.2). The lack of public transport and poor roads in rural areas could also limit access (Ciurea, 2007).

The organization of primary care was revised in 2010 and is described in the Order on Primary Health Care in the Republic of Moldova (No. 695, 13 October 2010) from the Ministry of Health. According to this, primary care may be provided by both public and private providers. The services provided are divided into basic primary care services (medical emergencies; prevention services including immunizations, health promotion and health education; management of chronic diseases; consultative services for pregnant and postpartum women, children, adolescents, elderly and socially vulnerable people; family planning services; minor surgery; and medical–social services, including home care and palliative care) and additional medical services, which are beyond the traditional scope of primary care and may be provided only when staff have additional qualifications and the necessary equipment is available. These additional services include diagnostic, rehabilitation and pharmaceutical services. The key actors in the provision of primary care are family doctors and family medicine nurses.

Family medicine centres in urban/district areas and territorial medical associations in the capital city play the central role in primary care provision all over the country. They are located in district towns and serve a population ranging from 40 000 to 80 000, including the population served by health centres, family doctor offices and health offices in their catchment area. The family medicine centres are directly contracted by the NHIC for the provision of basic and additional services to the district town and the whole surrounding area and serve as methodological and organizational centre for all primary care facilities in the district. They also collate all the statistical data for primary care

Fig. 5.1

Outpatient contacts per person per year, latest available year



Source: WHO Regional Office for Europe, 2012b.
Note: CARK: Central Asian Republics and Kazakhstan.

in the district. A health centre should serve at least 4500 inhabitants and have at least three family doctors. The health centres can be organized as subdivisions of the family medicine centres or as autonomous entities (public or private). The autonomous health centres are contracted directly by the NHIC for the provision of basic services in their catchment area. Family doctor offices and health offices are subdivisions of family medicine centres and health centres. A family doctor office serves a population of 900–3000 inhabitants and can have one or two family doctors. Health offices are organized in communities with fewer than 900 inhabitants and are staffed only with family medicine nurses. According to the existing norms, for each family doctor's position there are two positions for family medicine nurses in urban areas and two to three in rural areas (Order on Primary Health Care in the Republic of Moldova of 2010). In rural areas, family doctors and family medicine nurses are available 24 hours a day and also provide some emergency care. The health centres have transport that can be used for home visits and the transfer of patients if necessary. In 2010, every second person in need of health care went to a health centre and every fifth person went to a family doctor office (National Bureau of Statistics of the Republic of Moldova, 2011).

The choice of family doctor is described in the Regulation on Population's Registering with the Institution providing Primary Health Care within the Mandatory Health Insurance (Ministerial Order No. 627/163-A7, 9 September 2010). The Regulation mentions freedom of choice as a basic principle in the process of registering. The list of available facilities is made public on the NHIC web site and everyone can access his/her registration status by accessing the database on the same web site. However, the Regulation also "recommends" registering with the closest primary care facility to the place of residence and registering of all family members at the same institution. If someone chooses a doctor outside his/her residential area, the patient has to cover the doctor's travel costs each time a home visit is requested. All citizens have the right to change their family doctor once a year as well as each time they change their place of residence.

The Order on Primary Health Care in the Republic of Moldova of 2010 characterizes the family doctor as the coordinator and integrator of all health services provided to patients, acting as "a filter" in the population's access to other levels of care. Generally, the patient cannot access higher level services under the MHI without a referral from their family doctor. However the benefits package (Unified Programme) contains a list of 77 diseases (Annex 2) for which patients are allowed to access specialized ambulatory care directly.

The quality of primary health care services is increasingly treated as a priority issue. The NHIC evaluates the quality of services in order to validate the treated cases. Those of poor quality are not validated and, consequently, are not reimbursed. In 2009, the share of non-validated cases for outpatient services was 2.3%, which is about 2.5 times higher than the share of non-validated cases for inpatient services (0.9%); the highest share of non-validated cases was registered for home care services (11.3%) (Etco et al., 2011). Part of the quality improvement process has been the development of clinical protocols for primary care services. Recently, 147 clinical protocols have been developed within assistance projects supported by USAID, EU and the World Bank, and another 60 clinical protocols will be developed in the near future as part of an extended World Bank project. However, the challenge remains of how best to ensure that such protocols are used.

The *Roadmap 2012–2014* for the Republic of Moldova has among its main objectives the provision of quality services to the entire population. The document emphasizes the need to increase the institutional and financial autonomy of primary care; to improve the payment mechanism at the primary care level by taking into account demographic, geographic and performance aspects; to implement systems of quality management in all health facilities; and to implement information systems for the evaluation of health facilities based on quality and performance indicators (Ministry of Health, 2012a).

5.4 Specialized ambulatory care/inpatient care

Secondary care at district level is provided by district hospitals and specialized ambulatory services. Specialized ambulatory services are often physically located in the same premises as the family medicine centres but are legally and financially subordinated to the district hospital. In the capital city, secondary care is provided by municipal hospitals and territorial medical associations. The territorial medical associations are independent entities contracted directly by the NHIC. They consist of family medicine centres and consultative and diagnostic centres providing specialized ambulatory care. Most of the tertiary care hospitals are concentrated in the capital. They include highly specialized single-specialty hospitals (cardiology, oncology, neurology, TB, orthopaedics, etc.) and multiprofile hospitals for adults and children. Some of the single-specialty hospitals also have specialist polyclinics and outpatient clinics (oncology, cardiology). The multi-profile hospital in Balti is the biggest in the country and acts as both a secondary and a tertiary institution, providing

secondary care for the population of the city and tertiary care for the whole northern region of the country. Most of the municipal and tertiary hospitals are also teaching hospitals (see section 4.2.3). In 2010, 41.2% of hospital beds were in district hospitals, 41.1% in tertiary hospitals and 17.7% in municipal hospitals. Additionally, the country has parallel networks of departmental hospitals and polyclinics belonging to other ministries and services, and another network of private clinics that provide mostly specialized outpatient services (see section 3.6.1). In 2010, 50% of those who accessed hospital care in the last 12 months were admitted to a district hospital, 25% were admitted to a republican one (tertiary level) and 17% were admitted to a municipal one; however, those living in rural areas are usually admitted to district hospitals (66.3%) and republican hospitals (23.9%), while for urban populations 29.1% were admitted to municipal hospitals, 34.7% to district and 21.5% to republican hospitals (National Bureau of Statistics of the Republic of Moldova, 2011).

The integration of primary care and specialized ambulatory care is quite good because at the district level these services are usually located in the same premises and in the capital city they are a single entity. Patient records circulate freely between these two levels of services within the family medicine centres and territorial medical associations, and laboratory and instrumental investigations are usually not duplicated. For referrals from the lower level of primary care to secondary or tertiary care, the integration is not so good. Many investigations are repeated at the higher level of care and patient records are not transmitted directly, except for an extract with a summary of all examinations and treatments previously applied. The cooperation between secondary care and social care providers is still quite limited. Real progress was made in HIV and TB control (within GFATM-supported projects) with the creation of community centres providing mixed medical and social services. Amendments in 2010 to the Law on Mandatory Health Insurance of 1998 have made possible the subcontracting of NGOs for the provision of home care.

Improving the quality of services provided is a priority issue for the Ministry of Health. In parallel with the development of standards of care and guidelines, internal audit departments have been created at the central level in the Ministry of Health and in all big health care facilities. Quality assurance is also central to the activity of the NHIC and the National Council for Evaluation and Accreditation in Health, being part of their evaluation criteria.

All public hospitals under the Ministry of Health are self-financed, non-profit-making organizations. Each public hospital has its "founder", which is in essence its owner. For tertiary hospitals, the founder is the Ministry of

Health and for district and municipal hospitals the local authorities are the founders. The hospital directors are nominated (and dismissed) by the founder following a selection process. The founders coordinate the structure of the hospitals, their business plans, the contracts between hospitals and the NHIC, the big transactions with third parties, major capital investments and so on. Within a hospital, the administrative council is the main organ of administration and supervision. It approves, among other things, the activity plans and the periodic reports, the plans for the acquisitions of goods and services, the income and expenditure, and the salaries of employees. In addition, every hospital has a series of other permanent or ad hoc commissions created for specific purposes (e.g. commissions for emergency situations).

In 2010, the government approved the Programme for the Development of Hospital Health Care for 2010–2012 (Governmental Decision No. 379, 7 May 2010). The main goal of the Programme was to increase the efficiency and quality of hospital services through their development and modernization. The Programme provides a comprehensive classification of hospitals by different criteria: the complexity of services provided (primary, secondary and tertiary), form of property (public, public departmental, private and public with private departments/services), duration of treatment (short-term, long-term, rehabilitation and medical–social), the territory served (local, regional, national), specificity of treated diseases (general and specialized) and involvement in the educational process (university hospitals and institutes). The Programme also identifies specific targets for the number of beds, occupancy rates, length of hospitalization and so on. According to the Programme, some of the short-term hospital beds will be redesignated as long-term, medical–social and day-care beds, with special mechanisms for the reimbursement of such services under the MHI system to be determined. Another Programme for the Development of Hospital Health Care, for 2013–2015, is under elaboration.

The *Roadmap 2012–2014* envisages the creation of health zones with one regional and several community hospitals, the latter being envisaged as providing long-term care, rehabilitation, palliative care and social services. It also intends the strengthening of referral systems within the health regions; the establishment of joint administrative management for a series of tertiary hospitals; the implementation of quality and performance management systems in all health institutions of the country; and the integration of specialized ambulatory care services into existing hospitals.

5.4.1 Day care

Day care is provided at both primary care and hospital care levels. The organization of day care at the primary care level is stipulated in the Order on Primary Health Care in the Republic of Moldova of 2010 (see section 5.3). According to the Order, day care is provided to those patients who need hospital-type care but cannot be hospitalized. These are usually patients with a light or moderate severity of disease or those in the recovery stage who do not require round-the-clock care. The main aim is to reduce pressure on hospitals. It is usually organized by health centres and family medicine centres. Day care could also be organized by a family doctor office if it has a family doctor. The number of day-care beds is established in accordance with the size of the population served, the demand for such care and the capacities of the facility. No additional staff and no additional medicines or equipment are allocated to day care; it is organized within the existing resources of the provider, and the day-care activity programme usually coincides with the working hours of the family doctor. If the patient's needs exceed the available resources, he/she will have to contribute directly for the necessary medicines and consumables. Patients can be referred to day care either by the family doctor or by the specialist doctor, in which case they will also have to pay for the medicines and consumables.

In hospitals, day care is provided in the same premises and by the same specialists who deal with hospitalized patients, the only difference being that the day-care patients do not stay overnight. The NHIC reimburses such cases using bed-days (joint Ministry of Health and NHIC Order, On the Approval of Methodological Norms for the Application of the Unified Programme of MHI in 2011). The Programme for the Development of Hospital Health Care for 2010–2012 proposes further developments in day-care services in hospitals. For example, it proposes a regulation on hospital services provided in the form of day-care and single-day hospitalization, plus a mechanism for reimbursing such services from the MHI fund by classifying such cases based on their complexity. This document is still being developed.

5.5 Emergency care

The latest document regulating emergency care is the Ministerial Order on the Organization and Functioning of Emergency Health Care in the Republic of Moldova (No. 85, 30 March 2009), which approved also the new Regulation of the Emergency Health Care Service. The Regulation defines emergency care as round-the-clock pre-hospital care and assisted transportation of patients

when they call, on the call of tertiary parties or at the request of health workers. Emergency care in the Republic of Moldova is a vertical service subordinated to the Ministry of Health and consists of a large network of emergency stations, substations and points, guaranteeing a maximum geographical coverage of 25 km in radius. The whole service is coordinated by the National Scientific and Practical Centre of Emergency Medicine, located in Chisinau, which is also a tertiary-level 600-bed hospital. The Centre has four zonal emergency stations (north, centre, south and Gagauz-Yeri). The zonal stations are further divided into 41 substations, which, in turn, have 85 emergency points. A station could serve 200 000 to 650 000 population, a substation can have 2 to 13 emergency care teams and a point has emergency personnel for 1–1.5 teams. In 2011, emergency care services had 333 ambulances, ensuring a coverage of about 1 ambulance per 10 000 population. There is a unique emergency number (903) for dialling the 37 call centres across the country, which receive all the requests and liaise operatively with all stations, substations and teams. According to current norms, the request should be registered and submitted to the emergency team within 90 seconds; the team should arrive in 10 minutes in municipalities, towns and villages where the subdivisions of emergency stations are located and in 15 minutes in other cases. The team should transfer the patient to the medical facility in not more than 5 minutes. In this way, geographical coverage for emergency care is quite good and in most cases these norms are respected. The biggest impediments in the activity of the service are related to poor roads and the obsolescence of transport and equipment, as well as the shortage of qualified health care personnel. Consequently, of the 333 ambulances available, 102 units had a wear coefficient over 100%; in 60 units it was higher than 50%; in 61 units it was 30–50%; and in 114 units it was 10–30%. Staffing of emergency care service was 56.5% (Programme for the Development of Emergency Health Care for 2011–2015; Government Directive No. 945). Box 5.2 illustrates a patient pathway in an emergency care episode.

The National Scientific and Practical Centre of Emergency Medicine develops guidelines and protocols on emergency care, approves and implements plans for the continuous education of emergency care personnel, collects and analyses data and indicators on the service's activity and makes suggestions on policy and regulatory mechanisms to improve performance. The emergency care services collaborate closely with the public health service, the police, fire-fighters, rescue service, army and local public authorities. This collaboration is extremely important for disasters and major incidents when a concerted response is needed. For this purpose, the National Scientific and Practical Centre of Emergency Medicine hosts also a special unit, the Republican Centre

Box 5.2

An example of a patient pathway in an emergency care episode

In the Republic of Moldova, a man in an urban area with acute appendicitis on a Sunday morning would take the following steps.

- The man (or someone on his behalf) calls 903 for an ambulance.
- The triage–dispatcher (usually an experienced *feldsher*) in the call centre decides if the patient requires medical assistance and sends out the ambulance.
- The doctor in the emergency team will assess the patient and make a preliminary diagnosis. For a suspected appendicitis, the patient would then be transferred to the district hospital admissions department or, in Chisinau, the emergency department.
- At the hospital, the surgeon on duty will examine the patient and order the necessary tests to confirm the diagnosis.
- The surgeon then hospitalizes the patient and performs the surgery.

The man could also go by himself to the emergency department or district hospital. In theory, he should have his passport and insurance policy details with him, but emergency care is free of charge and he would not be billed or refused care if he were uninsured. Since 2003, emergency services have been adequately financed, and informal payments in emergency care are no longer a significant issue.

of Emergency Medicine, that coordinates disaster preparedness and response activities of the health system and runs the round-the-clock call centre at the Ministry of Health. Each zonal station and the municipal station have their own training centres in the field of emergency care for doctors, *feldshers*, nurses, drivers and other auxiliary and technical personnel.

The Republican Clinical Hospital also has a special subdivision called AVIASAN, which provides round-the-clock outreach emergency consultative care from specialists at the highest level from Chisinau, at the request of medical facilities in territories. The service can transport the specialists, patients, biological materials and equipment, as well as provide telephone consultations from the central to local level as necessary. The time frame from when the request is received to the start of the mission is under 60 minutes. AVIASAN has a branch in Balti serving the northern part of the country, but requests are still channelled through the call centre in Chisinau.

On 13 December 2011, the government approved a new national Programme for the Development of Emergency Health Care for 2011–2015 (Government Directive No. 945). The objectives of the Programme were to improve access to emergency care and improve the efficiency and quality of services. Among other things, the Programme foresaw the regionalization of emergency health

services and the centralization of call centres, an increase in the number of ambulances and their re-equipping, the development and implementation of clinical protocols and internal quality control mechanisms, capacity building, and incentives for human resources.

5.6 Pharmaceutical care

At the end of 2010, the pharmaceutical network in the Republic of Moldova consisted of: 22 production plants and microproduction laboratories, 59 pharmaceutical warehouses, 440 community pharmacies, 85 hospital pharmacies and 39 pharmaceutical units in family medicine centres, all of which also have a variable number of branches. The distribution of pharmacies across the country is uneven, with a much higher concentration in Chisinau and in the north than elsewhere (National Centre of Health Management, 2011). In rural areas, particularly in the south, access to drugs is hindered by the absence of pharmacies in many villages and people have to travel to the district town to buy medicines. It is, therefore, unsurprising that, in general, more of the urban population uses medicines than the rural population (38.2% and 30.9%, respectively); 54.8% of the population uses medicines following a prescription and 45.2% on their own initiative (National Bureau of Statistics of the Republic of Moldova, 2011).

WHO experts have estimated the total consumption of the Moldovan pharmaceutical market in 2011 to be worth about US$ 175 million (WHO Regional Office for Europe, 2012a). Of this, about US$ 15 million of consumption (8.6%) is produced locally, although the total volume of local production is higher as total exports are worth US$ 8.5 million. Pharmaceuticals worth approximately US$ 35 million are procured annually through the Medicines Agency and the remaining US$ 140 million worth (roughly 60% of the total volume) is imported through private channels (there were over 70 private importers/distributors operating in the country in 2010). Only medicines authorized and registered in the State Nomenclature can be imported (see section 2.8.4). In 2011, a total of 6134 products were registered, with approximately 800 active substances; however, not all of them were available on the market.

The public procurement of medicines and medical devices is guided by the Law on Public Procurement (No. 96, 13 April 2007) and the Regulation on Procurement of Medicines and Other Medical Devices for the Health System Needs (Government Directive No. 568, 10 September 2009). Procurement occurs centrally, but contracting and distribution are concluded between the hospitals

and selected distributors/importers. The whole process is overseen by the Public Procurement Agency and other bodies (e.g. the Centre to Fight Economic Crimes and Corruption and the Anti-monopoly Agency). In emergencies, health facilities can procure medicines themselves, but only after informing the Medicines Agency and getting official approval from the Ministry of Health. This has rarely been used to date because of the cumbersome procedures and strict oversight of the Public Procurement Agency. Approximately one-third of the products procured through the public system are produced in East Asia, and this percentage is growing fast.

Apart from centralized procurement carried out through the Medicines Agency and the modest decentralized procurement by hospitals, public financing includes also reimbursed medicines dispensed directly from accredited pharmacies. This limited range of medicines is reimbursed by the NHIC based on median prices agreed with accredited pharmacies. Depending on the pricing of the product, the NHIC will reimburse 50%, 70%, 90% or 100% of the cost (see section 2.8.4). The list of compensated medicines is revised on an annual basis and approved by the Ministry of Health.

The issue of pharmaceutical prices has been discussed widely in the media and has become a priority issue on the agenda of both the government and civil society. The media has reported that prices in the Republic of Moldova are higher than in neighbouring Ukraine and Romania, as well as other EU and CIS countries. In 2011, a survey on medicine prices, availability, affordability and price components was conducted by local experts with WHO support; according to preliminary data, the availability of key medicines was suboptimal in both public (51%) and private (58%) pharmacies (WHO Regional Office for Europe, 2012a). Eight essential medicines (of 50 studied) had 30% or less availability in public or private outlets and only 10 medicines (all generics) had availability over 80%. The final price of all pharmaceutical products in the Republic of Moldova is derived by adding to the fixed manufacturer price a wholesale mark-up of up to 15%, a retail mark-up of up to 25% and VAT at 8%. The survey revealed that patients paid about double for brand names than they pay for generics, and that most of the generics sold were about 35% higher in price than the lowest priced generics. Most standard treatments are not affordable for people with low wages, particularly for the treatment of psychosis, schizophrenia, Parkinson's disease and ulcerative colitis. However, in 2011, the wholesale mark-ups were just below 15% in both sectors, while the pharmacy mark-ups were about 20–25%, apart from in the public sector in rural areas where it was 14–15%. Consequently, the greatest contributor to the final price is the manufacturer's selling price. Of the medicines that were procured by the

public sector, 75% were at about 3.5 times the international reference price. The Ministry of Health is committed to tackling this issue in a comprehensive way, including through initiatives to change the current centralized public procurement mechanisms.

The quality of medicines is another important issue on the agenda. Rules for good manufacturing practice, good laboratory practice and good distribution practice are not a part of the existing legislation and hence are not enforced. The Medicines Agency has developed several draft Good Manufacturing Practice guidelines but none has been adopted yet. A shift from quality control to quality assurance is also envisaged in the near future but will require significant investments.

The National Medicines Policy, approved by the parliament in 2002, has not been updated since it was endorsed. The Ministry of Health will either have to update the document or develop a new long-term strategy for the medicines regulatory system (see section 2.8.4).

5.7 Rehabilitation/intermediate care

Rehabilitation services are underdeveloped in the country and the needs of the population far exceed existing capacity. The public rehabilitation services under the Ministry of Health consists of two departments of neurological rehabilitation, one centre for the rehabilitation of children with disabilities, departments of physiotherapy in hospitals and family medicine centres, and a sanatorium for the rehabilitation of children in Sergeevka (a Black Sea resort in Ukraine). The Ministry of Health also has two rehabilitation centres for children (Cornesti and Tirnova) who have been in contact with TB. Their main role is to isolate children from parents with smear-positive TB, provide prophylactic treatment and, in some cases, provide treatment in the continuation phase to smear-negative children while ensuring continuity of the school programme.

In addition, there is a small network of spa services not belonging to the Ministry of Health but used for rehabilitation purposes, the most well known ones being the Nufarul Alb Sanatorium in Cahul, specialized in the treatment and rehabilitation of patients with locomotor disorders, the sanatorium in Vadul-lui-Voda for the rehabilitation of patients with cardiovascular diseases and the sanatorium in Calarasi for a broader spectrum of diseases. Some large organizations and institutions have their own so-called centres for the rehabilitation of personnel and students, but these deal mostly with preventive check-ups and procedures. A centre for the rehabilitation of victims of trafficking

has been developed with external support (International Organization for Migration, UNICEF) and this also provides medical services. Some NGOs are active in developing rehabilitation services for people affected by different addictions (mainly alcohol and/or drugs). Rehabilitation care is also provided through a network of recuperation/rehabilitation and spa–sanatorium services under the Ministry of Labour, Social Protection and Family. These include the Republican Centre for Rehabilitation of Disabled Persons and Veterans of War and Work in Cocieri and two republican centres for the recuperation of retired and disabled people (in Vadul-lui-Voda and Sergeevka). The standard medical rehabilitation period is 21 days.

The benefits package covers only services related to physiotherapy and medical rehabilitation with physical methods, including kinetic therapy (*chinetoterapie*) and massage, in primary and specialized care. Neurological rehabilitation is not part of the benefits package and such services are not reimbursed separately. In 2008–2010, only 23% of all neurological patients in need of rehabilitation had access to such services; in 2010 alone, 3995 patients in need were denied services. A Society for Neurological Rehabilitation is now active in the country and has significantly contributed to the recent developments in this area described below.

On 25 May 2011, the Ministry of Health issued Order on the Organization and Functioning of Medical Rehabilitation and Physical Medicine Service in the Republic of Moldova (No. 432), which approved the Concept and Structure for the new rehabilitation service. The service would be created from merging the existing fragmented services at all levels of care (primary, secondary and tertiary). The Order also initiates the organization of training of specialists in rehabilitation through residency (four years) and continuous education programmes and of nurses specialized in this area, as well as the introduction of the specialty of medical rehabilitation and physical medicine and of the functions of doctor–rehabilitologist and nurse–kinetic therapist, in the nomenclature of specialties.

According to Order No. 432, the structure of medical rehabilitation and physical medicine in the Republic of Moldova should be to have medical rehabilitation offices and medical rehabilitation departments at the primary and secondary care level, rehabilitation medicine and physical medicine departments/offices within tertiary care hospitals, and specialized medical rehabilitation and physical medicine centres (for adults, children and the elderly). At different levels, the rehabilitation teams could vary in size from 1 specialized nurse up to 17 specialists (e.g. dieticians, manual therapists, complementary/alternative medicine specialists such as acupuncturists or

herbalists, prosthetic specialists, psychologists, speech therapists, audiologists, occupational therapists, social assistants, etc.) working under the coordination of the doctor–rehabilitologist. The large multidisciplinary teams would be created in eight areas, depending on the category of pathology addressed: post-traumatic consequences; neuropathology; cardiovascular, respiratory and digestive (including metabolic and endocrine) system diseases; burns; oncology; and geriatrics. The Ministry of Health Order No. 432 also establishes norms for coverage by rehabilitation specialists; for example, at the level of specialized ambulatory care, one doctor-rehabilitologist should be available per 20 000 population, one manual therapist per 40 000 population and one nurse for each function of the doctor–rehabilitologist. One doctor–rehabilitologist should be available for 200 beds in large hospitals and for 12 beds in specialized rehabilitation centres.

On 25 May 2011, the Ministry of Health also issued Order No. 434 on the Development of a Neurological Rehabilitation Service in the Republic of Moldova, approving also the Concept and Action Plan (2011–2012) for its implementation. According to the new Concept, a National Centre for Neurological Rehabilitation will be created that will coordinate the activity of the whole service and will also serve as a training and research base; the costs of neurological rehabilitation services will be estimated and the NHIC will reimburse them according to those estimates; the medical education curricula will be revised in order to improve coverage of neurological rehabilitation issues; and mobile rehabilitation teams will be created, which should significantly reduce the costs of hospital-based rehabilitation care. In the future, it is also envisaged that 2 regional centres of neurological rehabilitation will be created with 60 beds each in Balti and Cahul. The quality of services is going to be improved by the development of specific clinical protocols and guidelines for neurological rehabilitation.

5.8 Long-term care

Long-term care is mainly provided through the social protection system and is under the responsibility of the Ministry of Labour, Social Protection and Family. Currently, long-term care is provided through primary social services, specialized social institutions and residential protection services (Ministry of Labour, Social Protection and Family, 2011). Primary social services are provided at the community level and include home care by social workers for elderly people and disabled citizens living alone; social canteens offering

free-of-charge food to elderly people living in poverty, disabled people and children aged under 18 years from vulnerable families; and community social care services providing a broad spectrum of assistance to those in difficulties through community social assistants, who identify people in difficulties, evaluate their needs and ensure access to social services (provided by local authorities, community-based organizations, NGOs, etc.).

Specialized social services are provided to a much more limited number of beneficiaries needing intensive care or rehabilitation from qualified specialists. They could be provided at the community, district or national level by teams of specialists, including social assistants, nurses, psychologists and social workers. In 2010, the Republic of Moldova had 108 officially registered specialized social institutions, including 34 day-care centres, 6 placement centres, 30 mixed centres, 7 centres of social and medical rehabilitation, 29 residential care homes and 2 care/placement services (Ministry of Labour, Social Protection and Family, 2011). The largest number of beneficiaries (2271 per month) used day-care centres, which is a positive trend as these institutions aim to keep the beneficiaries in their families and communities. At the same time, the movement of beneficiaries from residential care home services is very low, and most of the residents are placed in institutions for an indeterminate period of time (Ministry of Labour, Social Protection and Family, 2011). Currently, 22 of the 34 day-care centres are supported financially by donor organizations; all 16 residential care homes are financed from local budgets: 3 by local authorities alone, 9 by local authorities working in partnership with civil society and 4 by public associations (Ministry of Labour, Social Protection and Family, 2011).

The demand for residential protection services continues to be high, and these services are expensive partially because of the limited availability of alternative services at the community level. The referral mechanism to residential care is stipulated in the Ministry of Labour, Social Protection and Family Order No. 55 of 12 July 2009. According to the Order, the territorial social assistance units refer to residential care institutions patients with complex issues that cannot be solved by primary social and medical care services, but do so only after exhausting all other options at community and family levels. The Ministry of Labour, Social Protection and Family has six residential institutions spread across the country, with a total capacity of 2125 beds. They are of two types: institutions for elderly people and adult people with physical disabilities (two institutions), and institutions for people with mental disabilities (four institutions). The most suitable type of institution is decided by the medical consultative commission within the public medical facility. The spectrum of services provided in these institutions includes social and medical services;

lodging; provision of food, clothes and footwear; occupational therapy; kinetic therapy; and cultural activities. The average length of stay is 10.5 years in institutions for mentally disabled people and 7.6 years in those for elderly and physically disabled people (Ministry of Labour, Social Protection and Family, 2011). The medical care in residential institutions is provided by high- and mid-level health personnel and auxiliary personnel. If residents need medical care that is beyond the competencies of the residential care institution, they are referred to municipal and tertiary institutions for investigations and treatment in accordance with the Unified Programme.

In 2008, the government approved the National Programme on the Creation of an Integrated System of Social Services for 2008–2012 (Governmental Decision No. 1512, 31 December 2008). The Programme aims to extend community and specialized social services rapidly as an alternative to residential services and improve their effectiveness and efficiency by combining prevention and rehabilitation services and by dealing with patients at the community level before their problems get more complex (Ministry of Labour, Social Protection and Family, 2011). Following the implementation of the Programme, in 2010 alone the annual rate of institutionalization decreased by 19% from that in 2009, and in the same year there were eight individuals who were registered as leaving an institution and being reintegrated into families and communities (Ministry of Labour, Social Protection and Family, 2011).

5.9 Services for informal carers

The value of informal care has gained only limited recognition, and there are no estimates available of the total number of informal carers in the country. There are also no training facilities for informal carers and usually the only support they get is in the form of periodical consultation and advice from their family doctor or the relevant specialist.

According to the Law on State Social Allocations for Some Categories of Citizens (No. 499, 14 July 1999), and its subsequent modifications (in 2006 and 2010), beneficiaries of such monthly allowances include those caring at home for a disabled child aged under 16 years (first level of severity) or a person disabled from childhood (first level of severity) if they are not under full state care; people caring for and accompanying blind people (first level of severity), and bedridden disabled people (first level of severity) who have suffered as a result of the Chernobyl disaster in 1986 (as established by Law No. 909-XII, 30 January 1992). The goals of this allowance are to prevent

and reduce the risk of institutionalization and to support severely disabled people within their families. The number of beneficiaries of these allowances has grown continuously, reaching 15 883 in 2010 (Ministry of Labour, Social Protection and Family, 2011).

In 2010, amendments to the 1998 Law on Mandatory Health Insurance stipulated that people who care at home for a disabled child (first level of severity) or for a person disabled from childhood (first level of severity and bedridden) should benefit from MHI cover free of charge, the costs being covered by the state.

5.10 Palliative care

Palliative care is still in an early stage of development in the Republic of Moldova. Until recently, it was provided in a fragmented manner solely by enthusiastic NGOs and mainly with donors' support. By 2008, one foundation, two NGOs and six associations were providing home palliative care to terminally ill patients and the elderly. External assistance played a crucial role in building the first national capacities in palliative care through training programmes involving family doctors, communicable disease specialists, nurses and other personnel. The initial focus was on people living with HIV and those with cancer, with a series of guidelines and brochures being developed in these specific areas.

In 2008, the Ministry of Health issued Order No. 234 On Developing the Palliative Care Services in the Republic of Moldova, by which approval was also granted for the Concept of Developing the Palliative Care Services in the Republic of Moldova. The Concept defined palliative care as "an integral part of the health system and an inalienable element of the citizens' right to health care". The Concept has also identified the main issues to be resolved in the area of palliative care in the short, medium and long term: for example, developing a regulation for organizing palliative care services; determining the types of palliative care service to be provided; adjusting national legislation to facilitate access to opioids and other medicines; defining the status of palliative care specialists; developing curricula on palliative care for different specialists, as well as clinical protocols and guidelines; and developing contracting mechanisms for palliative care service providers within the MHI system.

As part of the implementation process, in June 2009 the Ministry of Health issued Order No. 154 On the Organization of Palliative Care Services, by which the necessary regulation for palliative care was approved. The Regulation defined the types of palliative care, the recipients and providers of such services (including multidisciplinary teams) and the basic principles of palliative care. According to the Regulation, palliative care services can be organized in hospices, at home, in hospital palliative care departments and through specialized mobile teams, as well as within ambulatory care services. The providers of palliative care services can be of different ownership and legal organization types. Patients are referred to palliative care by the family doctor and specialist physician based on three criteria stipulated in the document: (1) advanced chronic pathology not responding to curative treatment or progressing despite specific treatment; (2) limited prognosis and life expectancy of less than 12 months; and (3) presence of uncontrolled symptoms or a psychological/spiritual suffering and/or a certain level of dependency. The Regulation also stipulates that palliative care services can be initiated only following the written informed consent of the patient or their legal representative. Once enrolled, the patient can receive palliative care until their death or transfer to another institution.

A new impetus in the development of the palliative care services came at the end of 2010, when a series of regulatory documents in this area was approved by the Ministry of Health. The development of community and home care services was made part of the Ministry of Health Activity Plan for 2011, under the objective Participation of All Partners in the Strengthening of Population's Health (Order No. 846, 27 December 2010). The subactivities stipulated in the Plan include estimating and approving the costs of community, home and palliative service provision; the identification of all potential service providers and supporting them; and extending the number of providers and contracting them by the NHIC.

On the same day, the Ministry of Health approved the set cost for one assisted case of palliative care provided in hospital/hospice (Order No. 875, 27 December 2010) and it also modified the Norms of Medical Personnel for Hospital Care in Republican (National), Municipal and District Institutions by introducing palliative care at the level of doctors, nurses and lower-level health care personnel in municipal and district public hospitals (Order No. 877, 27 December 2010). The approved costs and norms were further used as a reference in negotiating contracts between the health service providers and the NHIC. However, the reference cost was quite modest and far from covered all the patients' needs. For example, in 2011 the cost of 1 bed-day for palliative

care was MDL 93 (US$ 8) and the cost of a whole patient (30 bed-days) was MDL 2790 (US$ 250). Therefore, most palliative care providers have to look for additional sources of funding in order to ensure adequate quality of service. Most of them are co-financed by external donors (Soros Foundation, GFATM) and private companies.

Finally, on 30 December 2010, the Ministry of Health issued Order No. 884 On Approving the National Standards on Palliative Care. The document defines in detail the ways of accessing palliative care, the legal and ethical dimensions of palliative care, the structure and organization of specialized palliative care services, the informational management, the performance evaluation and the financial resources for palliative care. Financial resources included the National Social Insurance Fund as a potential source for financing multidisciplinary services. The Standards Order describes also the domain of palliative care, which includes medical, nursing, psychological/emotional, spiritual and social services (i.e. a multidisciplinary approach).

A specialized palliative care department for people living with HIV was created within the Round 8 GFATM project and was officially transferred to the Clinical Hospital of Communicable Diseases "Toma Ciorba" at the end of the project in February 2011 (Order No. 60, 31 January 2011). Additionally, on 31 March 2011, the Ministry of Health issued Order No. 244 On the Organization of Palliative Care Services for Persons Living with HIV/AIDS, by which the regulations for these services were approved, including one envisaging also the direct involvement of people living with HIV in the provision of palliative care services. With support from the Soros Foundation, a specialized outreach palliative care unit (the Centre for Palliative Care and Psychological Support) was established at the Institute of Oncology in Chisinau in 2009 for the care of terminally ill cancer patients.

To summarize, a comprehensive legal and regulatory framework for the development of palliative care services in the Republic of Moldova has been created since 2008; however, these services are still underdeveloped and further efforts are needed to implement the approved strategies. There are currently no comprehensive data available for the number of palliative care service users, as routine statistics do not collect such data and the only available sources of information are those from the NHIC records and individual project progress reports submitted to donors. In addition, no survey of the accessibility, adequacy and quality of palliative care services has been conducted. The spectrum of services is still quite narrow; for example, no palliative care services exist in the country for patients with incurable TB. So far, palliative care providers

have not managed to attract additional funding for their activities from the National Social Insurance Fund, and the activities of multidisciplinary teams are problematic. The services are reliant on volunteers, who are most often students of medicine, theology or social assistance who get periodically involved in palliative care projects; however, there is no comprehensive and sustainable approach to volunteering in palliative care, as the country generally lacks an adequate legal and regulatory framework in this area.

5.11 Mental health care

The mental health care services in the Republic of Moldova are still heavily reliant on hospital care, which is provided in three monoprofile psychiatric hospitals in Chisinau, Balti and Orhei (with a total capacity of over 2000 beds), providing short-term care and receiving 80–85% of all the resources allocated to mental health (SocioPolis, 2010). At the local level, such services are provided by psychiatrists within specialized ambulatory services: psychiatric offices. One of the major problems faced by mental health care services is the lack of specialized mental health professionals at the district level, particularly the lack of paediatric psychiatrists. As a result, the existing specialists are overburdened by a huge volume of work. Family doctors and nurses, as well as community-based organizations, are not currently very involved in mental health. The poor outpatient services mean that a quarter of all discharged patients come back to hospital because outpatient services are of such poor quality (SocioPolis, 2010).

In the early 2000s, CMHCs started to be developed with external assistance, and there are currently six active in the country: two in Chisinau, two in Balti, one in Ungheni and another one in Rezina. In 2009, the Ministry of Health issued a special Order On Community Mental Health Centres (Order No. 8, 17 January 2009), which approved the minimum requirements on CMHC staffing, spaces and equipment, as well as the case volume for a CMHC service user, making it possible for the NHIC to contract such services. One of the CMHCs in Chisinau, created with Swiss Development Cooperation Agency support within the Clinical Psychiatric Hospital, is also the National Centre of Community Mental Health, providing methodological assistance to other community services and building their capacity.

The quality of mental health services has been partially evaluated as part of a feasibility study (SocioPolis, 2010). According to this study, the quality of available services is considered quite high by service users, who rated the quality of services provided on a scale of 1 to 10 (with 10 being the highest).

On average, the services provided by psychiatric offices were rated at 8.65, those provided by psychiatric hospitals at 8.55 and those provided by CMHCs at 8.67. Service users also identified critical issues related to poor quality at the level of psychiatric offices, mentioning the lack of integrated treatment, the lack of confidentiality, long queues, the inaccessibility of medical records, hospitalization without consent and other issues. At the hospital level, the lack of occupational therapy services, poor hotel services, no possibility for walking outside and the discriminatory attitude of nursing staff were mentioned. At the CMHC level, the lack of possibilities for temporary placement, the lack of information about the centres and the predominantly female composition of the caring teams were all mentioned. Another quality-related issue is the lack of clinical protocols on mental health. At present, only two clinical protocols are available in this area: one on schizophrenia and another on affective mood disorders in adults. Both are oriented towards specialists and not towards primary care.

Despite the success of the CMHCs and the recognition of their potential role by decision-makers at the central and local level, coverage with such services is still quite limited and the sustainability of their financing is still questionable, particularly in terms of non-health personnel and services. In 2011, the Ministry of Health developed a draft government decision for approval of a regulation and minimum quality standards for a CMHC, taking into consideration both the Law on Mental Health (No. 1402-XII, 16 December 1997) and the Law on Social Protection (No. 547-XV, 25 December 2003). The draft regulation defined the CMHC as a "distinct medical–social service", offering psychosocial rehabilitation and social inclusion through a multidisciplinary team, including a psychiatrist, a psychotherapist, a psychologist, an occupational therapist, two social assistants and two nurses. The spectrum of services provided by a CMHC included a day-care centre, temporary placement and home care plus a crisis management and ambulatory treatment team. The draft regulation also identified the main financing sources for a CMHC as local authority budgets, MHI funds (for contracted services), the state budget (through mental health programmes) and other resources. The minimum quality standards stipulated the main principles of service provision, among them confidentiality, non-discrimination, interdisciplinarity, decentralization, deinstitutionalization, integrity, participation and so on. Social and family integration, as well as professional orientation, are all mentioned among minimum quality standards. The draft government decision with the regulation and standards is currently under public debate before being officially submitted for approval.

The future organization and development of mental health care services are guided by the Ministry of Health Order On Organization and Functioning of the Mental Health Service in the Republic of Moldova (No. 591, 20 August 2010). The Order contains a regulation on the staging of mental health care services provided to people with mental and behavioural disorders. According to the Regulation, mental health care services at the primary stage are provided by the family doctor, who monitors health status, compliance with treatment, the degree of ability/disability and refers those in need to specialist care. Emergency psychiatric care is provided by specialized emergency care teams, who can also transport patients in need to psychiatric hospitals. At the secondary (specialized) stage, mental health care services are provided by the specialist–psychiatrist within specialized ambulatory services, psychiatric clinics, psychiatric departments within general hospitals, multidisciplinary teams at the CMHCs, crisis centres and mobile teams. At the tertiary (highly specialized) stage, mental health care services are provided by the three psychiatric hospitals. The Clinical Psychiatric Hospital in Chisinau coordinates the activities of the whole mental health service at the national level; it has a special department for monitoring, evaluation and integration of psychiatric care service. Order No. 521 has also approved a series of other important regulations related to day care, clinic monitoring, psychosocial rehabilitation and occupational therapy, and operational management between the specialist–psychiatrist and primary care services.

In 2011, the Ministry of Health started drafting a national strategy for the development of mental health services at the community level. The specific objectives of the draft document include the prevention of mental and behavioural disorders and the protection of mental health; improving early detection and early interventions in mental health problems; ensuring continuity of mental health services and their integration into primary care; and community mobilization for rehabilitation and social reintegration of people with mental health problems, including through reducing stigma and discrimination. The strategy is planned to run from 2012 to 2021 and will be implemented in two stages.

5.12 Dental care

At the end of 2010, there were 11 public dental polyclinics in the Republic of Moldova, acting autonomously: 3 municipal ones (2 in Chisinau and 1 in Balti), 6 at the district level and 2 at the national level (National Centre of Health Management, 2011). In all other districts, dental care departments are part of secondary and specialized care, while in Chisinau they are part of the territorial medical associations. A significant proportion of dental services are also provided through the parallel health systems and through private practices. Therefore, of 1666 dentists active in the country at the end of 2010, only 896 were working in medical facilities belonging to the Ministry of Health, while 770 were working in facilities under other ministries. Many dentists from the state institutions also have their own private practices in parallel, treating patients in their free time. In 2010, visits to private dentists made up 42.3% of all dental care visits; among the poorest quintile, 61.3% of all consultations with private medical providers were related to toothache (National Bureau of Statistics of the Republic of Moldova, 2011). There are no dental hygienists working in the country.

After August 1999, the former state dental care institutions were transformed into state self-financed enterprises apart from those providing paediatric and emergency services (Governmental Decision No. 672 of 21 July 1999). Since then, they started to provide chargeable services according to the catalogue of prices approved by the government and exempt from VAT. In addition, they can also get resources from the state budget to implement specific programmes targeting vulnerable groups.

Following the introduction of MHI, some dental care services became covered by the Unified Programme and, therefore, financed through the NHIC. These are, however, limited to emergency dental care in acute situations and trauma, tooth extraction when clinically indicated, preventive check-ups and measures (including removing tartar, calcium and fluoride treatments, fissure sealing, etc.) for children under 18 and pregnant women, and preventive check-ups with recommendations on oral hygiene and health for all insured individuals (Government Directive No. 1387, 10 December 2007; Government Directive No. 1099, 2 December 2010). The NHIC can also financially support preventive programmes in the field of dental care from its Preventive Fund. For example, in 2010, the Ministry of Health launched and implemented a three-month special programme for the prevention of dental diseases in orphanages and care homes in Chisinau, Ialoveni and Straseni, where 78.2% of children needed dental

treatment (Ministry of Health Order No. 464, 5 July 2010). The Programme included outreach dental services provided by mobile teams to all children in the institutions covered, including preventive calcium and fluoride treatments.

5.13 Complementary and alternative medicine

Although complementary and alternative medicine is quite widespread in the country (with about 20–39% of the population using acupuncture, homeopathy and naturopathy services, offered by both public and private service providers), it is not currently well regulated. There is currently no national policy and no specific law on complementary and alternative medicine. There are also no coordination/research bodies or expert committees in this area. However, there are some lower-level regulatory documents and the Ministry of Health is in the process of developing a National Programme on Traditional and Complementary/Alternative Medicine. There are also regulations in place for the providers of specific services, the oldest ones being those on acupuncture (1994) and homeopathy (2000) and the most recent ones on chiropractic (2011) and osteopathy (2011) services. All providers of traditional and complementary/alternative medicine services should be certified and licensed in order to practise. According to the Ministry of Health Commission for the Certification of Doctors–Specialists in Traditional Medicine, Kinetic Therapy, Physiotherapy, Rehabilitation, Manual Therapy and Physical Medicine, in 2010 there were 96 acupuncturists, 37 chiropractors, 48 homeopaths and 37 osteopaths. Some traditional and complementary/alternative medicine services are partially covered by MHI; for example the Unified Programme includes some elements of acupuncture, chiropractic and osteopathy. All services outside the Unified Programme are provided for a fee.

Herbal medicines are regulated under the general legal and regulatory frameworks related to medicines, and nothing has been developed specifically for their production and safety. Herbal medicines are quite popular and broadly available; they are sold in pharmacies both on prescription and without prescription, but also in other retail points without any limitations. It is estimated that 60–79% of the population use herbal medicines. There is, however, a system for the registration of herbal medicines, classifying them into four main groups. This makes it possible for herbal medicines to be included in the National Catalogue of basic pharmaceutical remedies. Herbal medicines were traditionally a field of research for the State University of Medicine and Pharmacy "Nicolae Testemitanu" and other institutions, which led to

the production of some publications containing guiding and legally binding information. Some forms of traditional and complementary/alternative medicine are taught at the State University for Medicine and Pharmacy through residency (three years) and fellowship (two years) programmes (e.g. in manual therapy such as chiropractic and osteopathy and in homeopathy, acupuncture and herbalism) or through short-term (three weeks to three months) postgraduate training programmes. The training programmes for mid-level health personnel also include elements of traditional and complementary/alternative medicine.

One of the most prominent recent events in the field of traditional and complementary/alternative medicine was the opening of the Centre of Traditional Chinese Medicine within the State University for Medicine and Pharmacy in June 2011. The Centre was created with the financial support of the Chinese Government (about €540 000 investment in infrastructure, equipment and herbs) and employs currently both Chinese and Moldovan specialists in herbalism, acupuncture and manual therapy. It will also serve as a training base for medical students of the University.

5.14 Health services for specific populations

No significant changes at policy or systemic level have taken place in the health sector of the separatist region of Transnistria, which occupies about 12% of the country's territory on the left bank of the Dniester River, since the last Moldovan HiT was published (Atun et al., 2008). The continuing political and economical isolation and the limited implementation of fundamental reforms have contributed to the further worsening of demographic and health indicators in the region. The population has declined from 642 500 in 2001 to 540 600 at the beginning of 2007; the general disease incidence has increased by 22.3% and the general mortality by 12.8% in the same period (UNICEF Moldova, 2007).

The Government of the Republic of Moldova has no administrative control over Transnistrian health facilities and no access to statistical data from the region. The routine data collection system is the old Soviet-type and the local authorities were always reluctant to generate additional data and analysis through specific studies or surveys. However, there may be changes in this regard following the regional elections in December 2011, as the new leadership has shown a greater degree of openness. The region has mainly preserved the inherited Soviet (Semashko) system, with sectoral doctors (*uchastkovyi vrach*) in primary care, extensive hospital infrastructure and an unreformed sanitary-epidemiological system. Transnistrian health authorities try to transpose the

legal and regulatory frameworks from the Russian Federation, but often without proper adaptation given the substantial changes that have taken place in the Russian Federation since independence, including the introduction of MHI. Currently there is no single overall policy document for the health sector; the only strategic document is the General Concept for the Health Protection of the Population, which declares mother and child health to be a major priority (Morgoci, 2007). Four public health programmes have been developed and implemented in the region with support from the Transnistrian budget to strengthen priority areas such as immunizations, HIV and STIs, TB, cancer (including screening) and oral health. Another two programmes on emergency care and rural health are under development. The regional budget is also the main source of financing for health services. Apart from budgetary resources, health care providers can get additional funds from the state compulsory social insurance fund, services provided for a fee and humanitarian assistance (Morgoci, 2007). In 2006, budgetary resources allocated for health accounted for 4.2% of the region's GNP (UNICEF Moldova, 2007).

In the early 2000s, the number of hospital facilities fell from 24 to 18 following reorganization and the number of hospital beds per 10 000 population also fell, from 6.0 to 5.1; a type of optimization has also happened in ambulatory care, with the establishment of outpatient polyclinic care centres in Bender and Tiraspol (UNICEF Moldova, 2007). At the district level, health services are provided by district hospitals and polyclinics, and the former medical ambulance stations and *feldsher*/midwife stations have been preserved in villages (UNICEF Moldova, 2007). Family doctors became part of the system in 2007 but there is no strategic or systematic approach towards family medicine. Anecdotal evidence shows that family doctors working in Transnistria graduated from the State University of Medicine and Pharmacy in Chisinau (Morgoci, 2007). The absolute number of physicians of all specialties has remained stable, although the per capita rate has increased from 31.7 to 37.4 per 10 000 through the shrinking population; the situation with mid-level health personnel is similar (UNICEF Moldova, 2007).

In terms of medical education, there are two medical colleges in the region (in Tiraspol and Bender) training nurses, *feldshers*, midwives and laboratory assistants. Most of the doctors in Transnistria were trained in Chisinau, Ukraine or the Russian Federation. A Medical Faculty was created in 1992 within the University of Tiraspol but the quality of training there is questionable.

Relative to other sectors, collaboration in the field of health between the two river banks is better. There is at least a periodic exchange of information on major public health issues, and some important public health programmes have been successfully extended to Transnistria, including those implemented with external assistance; international NGOs and transnational bodies have relatively good access in the region. The areas in which mutual interest in collaboration has been demonstrated so far include vaccinations, HIV, TB, avian and pandemic influenza, mother and child health, adolescent health, reproductive health and family planning, and blood safety. Consequently, some statistics on HIV infection rates and vaccination coverage for Transnistria are available. These collaborative initiatives have also significantly improved access to vital health services for Transnistria's population. A good example of this is the creation of an antiretroviral treatment centre in Tiraspol within projects supported by Médecins sans Frontières and GFATM. However, the Transnistrian authorities are still reluctant to support substitution therapy for intravenous drug users, which has been successfully implemented on the right bank.

In spring 2012, WHO initiated a Rapid Health System Assessment in Transnistria. This is going to be the first comprehensive overview of the Transnistrian health system's functions. The report will be finalized by autumn 2012 and is expected to serve as guidance for all the actors willing to work in the health sector of Transnistria. However, additional thorough assessments will be needed in separate areas and subsectors to better inform policy decisions for the region.

6. Principal health care reforms

6.1 Analysis of recent reforms

Recent reforms are consistent with the intervention areas reflected in the National Health Policy for 2007–2021 and the Health System Development Strategy for 2008–2017, which were approved by the Government of the Republic of Moldova in 2007. The reforms cover the following areas: public health, service provision, health system financing and resource generation. The history of reforms undertaken before 2007 is described in section 2.2 and in the previous edition of this report (Atun et al., 2008). Major recent policies (from 2008 to 2012) and their objectives are presented in Table 6.1.

The National Health Policy of 2007 established clear visions for the national aspects of health and public health for the period 2007–2021. This document serves as an instrument to enable a systemic approach towards health issues and solutions for them, particularly through activities that influence the policies and actions of other sectors in order to address social, environmental and economic determinants of health (see section 2.6). The principles set up by the National Health Policy have initiated the reorientation of the legal and regulatory framework towards health promotion and disease prevention by targeting the risk factors and actions to prevent diseases at the individual and community level. Therefore, for the first time in the Republic of Moldova, the objectives of health protection and health strengthening began to be addressed by involving all social sectors that had policies and programmes which would impact on public health (see section 2.6). However, not all priority intervention areas reflected in the National Health Policy have been supported by the public authorities managing different sectors of the national economy. It is particularly true for sectors responsible for the production of tobacco and tobacco products, and alcoholic beverages. Although there was external pressure to have a Tobacco Control Action Plan in place by 2009, the resistance of domestic tobacco and alcohol producers to the Ministry of Health's promotion of tobacco and alcohol

Table 6.1
Important policy measures, since 2007

Policies	Objectives
National Health Policy for 2007–2021 (2007)	Reducing the health inequalities for all social groups and the consolidation of intersectoral partnership for strengthening the population's health
Health System Development Strategy for 2008–2017 (2008)	Improving public health by consolidating improvements in the health system
Legal separation of primary health care at the district level (2008)	Increasing the efficiency of primary care services at the district level
Regulation of the acquisition of medicines and other medical products for the needs of the health system (2008, 2009)	Efficient and optimal use of financial resources available in the health system
Law on State Surveillance of Public Health (2009)	Regulating the state surveillance of public health and general requirements of public health
Amendments to the Law on Mandatory Health Insurance (2009, 2010)	Increasing financial protection of people from vulnerable families; extending the service package for uninsured persons
Strategy for the Development of Primary Health Care for 2010–2013 (2010)	Strengthening and ensuring sustainability for the primary care system
Programme for the Development of Hospital Care 2010–2012 (2010)	Modernization and increasing the efficiency of hospital care
Regulation on the Approval and Registration of Producers' Prices for Medicines (2010)	Ensuring economic accessibility and the social interests of consumers, as well as transparency in regulating the prices for medicines
Programme for the Development of Medical and Pharmaceutical Education in the Republic of Moldova for 2011–2020 (2010)	Improving medical and pharmaceutical education policies

control policies delayed approval of control plans, with government approval only given in 2012 for the National Tobacco Control Programme 2012–2016 and the National Programme for the Reduction of Alcohol Consumption 2012–2020 (see section 6.2).

The organization of an effective system for the state surveillance of public health was among the priorities of health reforms and is one of the objectives of the 2009 Law on the State Surveillance of Public Health. In accordance with this Law, the government reorganized the State Sanitary and Epidemiologic Service as the SSPHS in 2010 (see sections 2.3 and 5.1), but some principles described in this Law need a longer period of time for implementation (see section 6.2).

The Health System Development Strategy, approved by the government for 2008–2017, focuses on efficiency, performance and quality as key development areas to ensure the population has adequate access to health services and protection from financial risks associated with health care costs. The essential domains for the reform reflected in the Strategy's objectives are improvement of the health system's governance and organization, provision of public and

individual health services according to the current requirements and adjusted to the population's needs, plus the generation of resources needed for the health system. The first results related to Strategy implementation were achieved by reforming the organizational structure of primary care providers. From 1 January 2008, primary care providers in the districts were separated from hospitals and gained legal and financial autonomy, signing their own service provision contracts with the NHIC. This reform aimed to improve the efficiency of primary care providers and was continued with the approval in 2010 of the Strategy for the Development of Primary Health Care for 2010–2013. Implementing the Strategy has resulted in the financial sustainability of primary care through its direct financing from the basic MHI fund, which is maintained annually at about 30% of the fund's total value. In addition, in order to optimize the capacity of primary care facilities, the Ministry of Health has established new requirements for their buildings, according to which the buildings housing rural primary care providers should be renovated or rebuilt. The rehabilitation process for the physical infrastructure of primary care and the modernization of education for family doctors and nurses, as well as the development of clinical protocols in the field of family medicine, are supported by international partners, mainly the World Bank and the EU. In 2010, the Ministry of Health approved the norms for regulating primary care, which included the functions, obligations, organizational modalities, financing and range of services provided, as well as defining the roles and responsibilities of the family doctor and nurse. According to these norms, family medicine in the Republic of Moldova is the first point of contact within the health system, offering non-discriminatory access to patients and dealing with all their health problems.

The number of rural primary care providers obtaining legal and financial autonomy has gradually increased, but in order to obtain such status the primary care providers need to meet certain criteria, such as having at least three family doctors and serving at least 4500 patients. In 2011, the share of autonomous rural health centres contracted by the NHIC was just 16% of the total number of rural health centres (National Health Insurance Company, 2011). A special programme for increasing the number of health centres contracted directly by the NHIC was approved in 2011 and the aim is to reach 100% by 2014.

The processes for improving service provision have focused on adapting services to emerging needs, particularly for socially vulnerable groups. Since 2008, regulations have been approved for the development of geriatric health care, home care, palliative care and mental health services (see Chapter 5). These reforms were designed to ensure access to medical services according to the needs of older people, to improve quality of life of people with special

needs and to improve quality of life through the management of pain and other symptoms in patients with incurable diseases. Also, by organizing CMHCs, the aims were to increase access to specialized mental health services, to improve the social cohesion of patients with mental disorders and to integrate patients into society. However, achieving these ambitious objectives is still for the future. Nevertheless, the Ministry of Health has sought to ensure the sustainability of these new services by including them in the benefits package financed through the NHIC. Moreover, in 2010, parliament amended and supplemented the Law on Mandatory Health Insurance to allow NGOs specialized in home care, including palliative care, to be contracted as service providers. Consequently, providers of different types who have developed their capacities and gained experience and qualifications with the support of external partners are currently delivering health services financed from public funds.

With the same aim of improving the quality of services provided to the general population, parliament amended the Law on Health Protection in 2010 to eliminate legal barriers to the development of PPPs in the health sector. The result of this reform became apparent quickly, and the first PPPs have been developed for radiography and diagnostic imagery services within the Republican Clinical Hospital. In this hospital, the outsourcing of some services took place for the first time in the history of the Moldovan health system. Those services include cleaning and maintenance of buildings and supply networks. In 2011, the Ministry of Health launched a new PPP initiative for dialysis services.

Restructuring the network of public hospitals was another priority intervention covered in the Health System Development Strategy for 2008–2017. The government approved in 2010 the Programme for the Development of Hospital Care for 2010–2012, which aimed to increase the efficiency of the network and the quality of services provided in line with population's expectations and needs. This Programme was developed based on the General National Hospitals Plan for 2009–2018, developed by the Ministry of Health with World Bank support. Specifically, the General Plan suggested the creation of 9 zonal hospitals to replace the current network of 34 district hospitals, plus the creation of 2 regional centres (specialized hospitals in Cahul and Balti). For the Chisinau municipality, three types of hospital were envisaged: municipal hospitals responsible for the treatment of the general population of the capital; centres of excellence in the form of tertiary monoprofile hospitals; and university hospitals, which would offer the most complex types of service and medical education (Edwards, 2011).

The most important actions implemented within the hospital care reform process are related to the creation of the Republican Clinical Hospital as a centre of excellence and the introduction of the case mix financial model in several pilot hospitals from 1 January 2012. In 2010, the Ministry of Health conducted a feasibility study at the Institute of Oncology, which resulted in a proposal to decentralize chemotherapy services (Sanigest Solutions, 2010). However, the unstable political situation (see section 1.3) and the resistance to reforms by health workers and the population, who have nostalgic views about the organizational structure of hospital care from the Soviet period, have led the Ministry of Health to postpone the implementation of some ambitious changes foreseen in the General Plan, such as the creation of regional and zonal hospitals and the creation of organizational mechanisms for health care within the zones served by such hospitals.

Priority actions in the reform agenda for health system financing include increasing the share of population covered under MHI, ensuring a defined package of services is available for the uninsured and enhancing protection against the financial consequences of illness. Specifically, it has been ensured that budget funds are directed through the MHI system towards vulnerable populations. For example, in 2009, parliament amended the Law on Mandatory Health Insurance by complementing the categories of unemployed people insured by the government with people from vulnerable families in receipt of welfare benefits under the Law on Social Aid. In addition, the package of services for uninsured people, including pre-hospital emergency care and primary care, as well as specialized ambulatory care and hospital care for a group of socially significant diseases that have a major impact on public health, is covered under MHI funds according to the list established by the Ministry of Health. Legal instruments have been created to expand MHI coverage of self-employed citizens; for example, the Law on Entrepreneurial Patents was amended in 2010 to make it compulsory to confirm MHI cover when issuing an entrepreneurship patent (a nominal state certificate attesting the right to undertake the specified entrepreneurial activities for a certain period of time). To encourage self-employed citizens to purchase cover, a system of financial incentives was also offered in 2008 and 2009 (Shishkin & Jowett, 2012).

Amendments and supplements to the Law on Mandatory Health Insurance made in 2010 have protected the principles of equity and solidarity in resource generation in the Moldovan MHI system. These legal provisions were introduced in order to prevent decentralization and fragmentation of the pooling mechanisms and financial flows, which could have happened if organizations representing contributors with high salaries had been successful in establishing

separate funds managed by private insurers, as this would have led to inequities in financing and utilization of medical services. Through the same amendments, parliament also instituted the fund for development and modernization of public health service providers that contract with the NHIC. This fund now accumulates 2% of MHI finances and is offered to providers based on an open competition for investment projects presented by services providers from the public sector.

The rational use of medicines, as well as ensuring the physical and economic accessibility of medicines, was also a priority intervention stipulated in the Health System Development Strategy for 2008–2017. Since 2008, the acquisition of medicines and other medical products for the health system has been carried out centrally from state budget resources at the national and local levels, from special resources of public medical facilities, from MHI funds and from external grant and loan aid. According to a government norm approved in 2009, all national, municipal, district and departmental public medical and sanitary facilities, including the medicosocial facilities subordinated to the Ministry of Health, should participate in the centralized acquisition of medicines. Annually (by 1 July), the managers of all public medical facilities are obliged to assess their requirements for medicines and other medical products to be centrally purchased for the next year, based on the list of medicines and medical products approved by the Ministry of Health. The lists are presented to the Medicines Agency for organization and the Agency arranges the centralized acquisition procedures. Even though most actors in the health system accept the need for centralized purchasing to promote efficiency, safety, quality and accessibility, they still note that there are delays in the delivery of medical products that sometimes lead to an inadequate supply of certain medicines for patients. According to a survey conducted in 2011, 62.7% of hospital inpatients reported buying their own medicines because the hospital was incapable of providing all the medicines necessary for treatment (PAS, 2011). In 2011, the Ministry of Health conducted an *ex ante* evaluation of the public policy proposal Increasing Efficiency of the Public Acquisition Mechanism for Medicines in the Health System, and based on this is going to make recommendations.

In order to serve the economic and social interests of consumers, the government approved the Regulation on the Approval and Registration of Producers' Prices for Medicines (2010). The Regulation was a response to the increase in pharmaceutical prices during 2006–2010 and the lack of control over producers' prices. The registration of a producer's price is a procedure for including a price in the National Catalogue, following the Ministry of Health approval, which is updated monthly. The producer's price for a medicine is

the average price for the medicine taken from the three lowest prices from producers from selected reference countries (see section 2.8.4). This reform would appear to have had some impact as, according to the Ministry of Health data, pharmaceutical prices decreased by 3% in 2011 and the previous upward trend in prices has been reversed (Ministry of Health, 2012b).

The reform of medical and pharmaceutical education started in 2010 with the government approval of the Programme for the Development of Medical and Pharmaceutical Education in the Republic of Moldova for 2011–2020. The general aim of the Programme is to reform the medical and pharmaceutical educational process to bring it into line with European standards. The Programme outlines the need for strategic planning and coordinated actions in order to ensure high-quality specialized education by adjusting it to international performance standards, introducing innovations and adapting curricula to the requirements of the labour market. The Ministry of Health has developed an Action Plan for the Programme's implementation but it has not yet been approved by the government.

In 2011, the Ministry of Health, with World Bank support, drafted the Strategy for the Development of Human Resources for Health in order to adjust the supply of health personnel to the contemporary needs of the system and to encourage the retention of health workers in the system. Although there are also international pressures for its approval, it has not yet been approved by the government. The main problems in the area of human resources are related to the mismatch between the current number of service providers of different specialties and the numbers needed; the mismatch between the level of professional training and the level required in the health system; the urban–rural imbalance; the stark division between "prestigious" and "unprestigious" specialties; and the migration of the most qualified health professionals from the health system. Under budgetary constraints, the Ministry of Health has made concerted efforts to ensure rural facilities are adequately staffed, offering financial incentives for young specialists to go and work in rural areas. These opportunities have encouraged nurses and *feldshers* to work in rural areas but have had less impact on the decisions made by doctors. Since 2011, the Ministry of Health has taken action to strengthen the country's capacity to manage the mobility of health workers, including their capacity to develop a better framework for legal migration in order to reduce the negative impact on the health system and to facilitate reintegration of returning health workers. These activities also aim to extend knowledge about the mobility of health professionals from the Republic of Moldova, to promote/facilitate their circular

migration and to prevent and mitigate the negative effects of brain drain and brain waste on the health system. These initiatives are supported by the WHO Regional Office for Europe with funds provided by the EU.

6.2 Future developments

The National Health Policy 2007–2021 and the Health System Development Strategy 2008–2017 are the most important policy documents determining the direction of future reforms. It is impressive that the National Policy and Strategy are still on the government's agenda as reform priorities, despite the three changes of government that have occurred since their approval in 2007. However, the speed of reforms is slower than it was in 2004, when MHI was introduced. In order to accelerate the full implementation of reforms outlined in the National Policy and Strategy, in 2010 the Ministry of Health developed a policy document: *"Roadmap 2012–2014. Accelerating Reforms: Addressing the Needs of the Health Area through Investment Policies"* (Ministry of Health, 2012a). The urgent need to speed up reforms was necessary to ensure quality health services were provided to the population, but the impact of the financial crisis led to increased costs for services and pharmaceuticals. The growing demand for modern and high-performance diagnostic technologies, and for rehabilitation treatment for an ageing population has also meant an increased demand for health services. The goal of the *Roadmap 2012–2014* is to offer recommendations for the most productive ways of achieving the objectives of the Health System Development Strategy for 2008–2017. These objectives aim to ensure better population health, greater satisfaction with services provided and a high degree of protection against financial risks when accessing health services for each citizen of the Republic of Moldova, as well as eliminating the inequities in the distribution and use of health services while ensuring the long-term sustainability of the results achieved (Ministry of Health, 2012a).

The objectives of the *Roadmap 2012–2014* focus on:

- providing quality services for the entire population through measures such as the regionalization of specialized and highly specialized health care, the institution of common administrative management for monoprofile hospitals, the decentralization of primary care and the implementation of a quality management system in all medical and sanitary facilities; and
- increasing equity in the financing of health services through measures such as the reorientation of the state budget contribution to MHI funds towards vulnerable population groups, the encouragement of

self-employed citizens to buy MHI cover (including through regulatory mechanisms), and the institution of contribution responsibilities for other groups of the population according to their financial situation.

At the same time, the Ministry of Health is aware that to achieve these objectives certain preconditions should be in place: (1) a stable political situation in the country, (2) support from international partners for financing projects and activities of major importance for which there are no internal financial resources available, and (3) partnership between the government and society for the achievement of the proposed objectives (Ministry of Health, 2012a).

The reform of public health will focus on the principles stipulated in the Law on the State Surveillance of Public Health, which was approved by parliament in 2009. These principles include achieving an active partnership with communities and the central and local authorities; focusing on primary and secondary prevention and on the needs of communities and population groups; tackling the social, environmental and behavioural determinants of poor health; having a multidisciplinary and intersectoral approach with a clear delimitation of responsibilities; and instituting evidence-based decision-making and/or decisions based on the recommendations of competent international organizations. The Ministry of Health is relying heavily on the implementation of these principles and believes that the enforcement of this law will have significant effects on public health services: increasing their efficiency, adapting them to emerging needs, ensuring equity, increasing quality and accessibility on public health services and optimizing public health spending – in addition to implementing the Health in All Policies principle. In February 2012, the government approved the draft parliamentary decision on the National Strategy for the Prevention and Control of Priority Noncommunicable Diseases in the Republic of Moldova for 2012–2020. This document will be examined by parliament and has as an objective the implementation of integrated actions by all branches of the economy aimed at controlling socioeconomic, biological, environmental, behavioural and cultural risk factors, as well as ensuring the availability, quality and accessibility of health services, as all of these help to determine the health status of the population.

Among the most important policies in public health are those related to noncommunicable disease control through tackling the health determinants, particularly those related to tobacco and alcohol consumption, that result in poor population health (see section 1.4). The National Tobacco Control Programme 2012–2016 and the National Programme for the Reduction of Alcohol Consumption 2012–2020 (both approved by the government in 2012)

took into consideration a cost–effectiveness analysis of control interventions based on the WHO CHOICE methodology (Tirdea et al., 2011; Turcanu, Obreja & Saluru, 2011).

The objectives of the National Tobacco Control Programme for 2012–2016 focus on improving the health status of the population by reducing tobacco consumption through the imposition of bans on advertising and promotion of tobacco, as well as on tobacco brand sponsorship of events; extending the surface of the warning labels on cigarette packs by 50–75% and including pictures on the packs; creating tobacco-free environments; increasing the taxes on tobacco products; developing cessation services for smokers, as well as education, communication and public awareness on the risks related to tobacco consumption and the importance of tobacco control measures.

The National Programme for the Reduction of Alcohol Consumption 2012–2020 has the key objective of preventing and reducing the harmful consequences of alcohol consumption on people's lives and health by imposing bans on advertising and the promotion of alcoholic beverages; increasing taxes and prices for strong alcoholic beverages; reducing all forms of illicit trade in alcoholic products; offering assistance for the cessation of alcohol consumption; and providing information and education for the population about the different health, social and economic consequences of excessive alcohol consumption.

In parallel, the Ministry of Health has also been trying to influence other sectors, particularly those related to road safety, nutrition, the environment and so on, to make them address health problems in their policies. In order to evaluate achievements in the promotion of intersectoral actions outlined in the National Health Policy for 2007–2021, the Ministry of Health plans to develop a set of indicators to estimate the health system's performance in the area of health promotion and intersectoral activities to maximize the health gains. The performance evaluation system in the field of health will also analyse the achievements of the health sector developed in the Health System Development Strategy for 2008–2017, namely: continuous improvement in the population's health status; greater responsiveness of the health system to the population's needs; better protection from financial risks associated with accessing health services; increased efficiency of the health system; and the degree to which intermediary objectives have been met, such as access, coverage, acceptability, quality and safety of health services.

7. Assessment of the health system

7.1 Stated objectives of the health system

The stated objectives of the health system are given clearly in the Health System Development Strategy for 2008–2017:

- continuous improvement of population health;
- financial risk protection;
- reducing inequalities in the use and distribution of health care services;
- enhancing user satisfaction; and
- restructuring the health system to improve performance and population health regardless of limited resources.

Even though there have been three changes of government since the Health System Development Strategy was approved in 2007, these stated objectives have remained constant and it is some measure of the high priority that the health system is afforded that reform efforts have continued despite an extended period of political uncertainty (section 1.3). Even through the financial crisis, the Strategy served to protect the interests of the health sector and maintain the focus on population health; the level of public spending on health has been maintained. However, political commitment has wavered in some areas so there has been more progress in implementing some aspects of the Strategy than there has been in others. As elsewhere, working intersectorally to achieve improvements in efficiency and population health has proved particularly challenging.

7.2 Financial protection and equity in financing

7.2.1 Financial protection

Overall, despite the introduction of MHI in 2004 and the increase in public spending on health since that time, the extent to which people are protected from the financial consequences of ill health has not improved as much as had been hoped (Shishkin & Jowett, 2012). OOP payments constitute a major source of revenues for health care providers, and the persistence of informal payments in these revenues is particularly troubling because the uninsured have to pay more OOP than the insured (see section 3.4). This has implications for financial protection because a significant proportion of the uninsured are from vulnerable groups (Richardson et al., 2012). However, the major expense for Moldovan citizens is the cost of pharmaceuticals; spending on medicines accounted for 73.1% of all OOP expenditure in 2010 and spending on pharmaceuticals has dominated OOP spending for some time (see Table 3.5). The main focus of health policy around financial protection has been on improving the breadth of MHI coverage (see section 3.3.1), while the scope of coverage has been constrained by fiscal realities, which means that the reimbursement of pharmaceuticals under MHI has remained limited. The limited scope of coverage and the challenge to the depth of coverage presented by informal payments may serve to reduce the value of insurance coverage in the eyes of the population – this is a key factor affecting the improvement of breadth of cover where the self-employed have to be encouraged to purchase their own policies.

More than a third of patients in a survey on hospital care thought the direct payments were so high as to be catastrophic for their household (PAS, 2011). However, although poorer households pay proportionally more for hospital care than richer households, protection from catastrophic expenditure for the poorest households did improve between 2007 and 2010, despite the global economic crisis (Shishkin & Jowett, 2012). This is because coverage under MHI of the poorest households has improved over this time.

7.2.2 Equity in financing

Achieving equity in financing is an explicit policy aim of the Moldovan Government under the Health Strategy 2008–2017. For this reason, the non-working population is covered under MHI by budgetary contributions while proportional payroll contributions cover most of the working population (see section 3.3.1). The aim is to achieve universal coverage under MHI, but this has not yet been achieved and, in 2011, 20.1% of the resident population

did not have health insurance. These are mostly self-employed agricultural workers and, while the flat-rate contribution for self-employed people may be considered unprogressive, from 2009 those employed in agriculture could get a 75% discount if the insurance policy was purchased in the first quarter of the year. However, this policy has yet to have the desired impact and improve coverage (Jowett & Shishkin, 2010). Nevertheless, while universal cover has not yet been achieved, the dynamic is for coverage to increase annually, albeit incrementally. Therefore, the main challenge to the overall equity of health financing is that OOP payments constituted 44.9% of total health expenditure in 2010, and this proportion has remained stubbornly at around this level since the introduction of MHI in 2004 (see section 3.2). The share of OOP spending on inpatient or outpatient care is quite small (see Table 3.5), but the overall financing of the system cannot be considered progressive until more health expenditure is prepaid.

7.3 User experience and equity of access to health care

7.3.1 User experience

Extensive data on health system responsiveness are not available for the Republic of Moldova; however, one recent survey found that 80.2% of respondents were satisfied with services provided in hospitals, although 53.4% were unsatisfied about the amount of OOP payments that they needed for hospital services and 49.8% were unsatisfied with the hotel services (see section 2.9.5) (PAS, 2011). However, waiting times in the health system are relatively short. Patients have reported that they are well informed of treatment decisions (75% reported being kept informed about their treatment), but 25% had no access to their patient records. However, while it is important for patients to be kept informed about their treatment, this is not the same as them being actively involved in treatment decisions (National Bureau of Statistics of the Republic of Moldova, 2011). User satisfaction has not been the main focus for reform efforts, despite it being one of the stated objectives in the Health Strategy – the core focus remains improving equity in the system.

7.3.2 Equity of access to health care

The benefits package under MHI is the same for all insured people in the Republic of Moldova and all have access to the same package of primary care benefits irrespective of insurance status. However, there are considerable

inequities in insurance coverage, which inevitably lead to inequity in access to services. For example, a study of living conditions of Roma in the Republic of Moldova found that only 23% of Roma had insurance policies in 2007, even though cover is provided free of charge for all resident pensioners and children (Cace et al., 2007).

The barrier to coverage for many Roma was the lack of formal identity documents, but geography is also a feature: many Roma in the Republic of Moldova live in more remote rural areas and 81.5% of Roma households are up to 3 km away from a family doctor's surgery (Cace et al., 2007). This is likely to be compounded by the shortage of qualified medical staff in rural areas, which is the main geographical challenge to equity of access to health care (see section 4.2), particularly as rural communities are underserved by public transport.

Although the Ministry of Health uses a "Deprivation Index" to decide on where resources should be focused for the renovation of health facilities in order to overcome geographical income differentials, the absolute level of spending on the renovation and re-equipping of facilities means that the impact on geographical equity has been limited (see section 4.1). Certainly, there is lower utilization of primary care services in rural areas compared with urban areas, but rural areas are also, on average, poorer and have worse health insurance coverage; both these factors have also been negatively associated with the utilization of health services (National Bureau of Statistics of the Republic of Moldova, 2011). Findings from a national household budget survey in 2010 showed that 11.2% of respondents in the poorest quintile had consulted a doctor in the past four months, but 25.5% of respondents from the richest quintile had; indeed, there was a clear relationship between increasing household income and increasing health care utilization (National Bureau of Statistics of the Republic of Moldova, 2011). This would imply that the "inverse care law" is also applicable in the Moldovan context and that there are factors other than need which determine access to health care; in 2010, 41% of the poorest quintile was found to be uninsured (even though half of this quintile is entitled to receive free cover), while only 19% of the richest quintile was uninsured (National Bureau of Statistics of the Republic of Moldova, 2011).

Nevertheless, 28% of respondents felt that access to care had improved, while 10% felt it was worse and 30% said there had been no change. The proportion of respondents who did not go to the doctor when ill had fallen since 2008, and fewer complained about financial barriers to access; more respondents blamed the poor quality of services provided for their reluctance to

seek care (National Bureau of Statistics of the Republic of Moldova, 2011). In a survey conducted in eight post-Soviet countries, utilization in the Republic of Moldova was actually found to be the highest (Balabanova et al., 2012).

7.4 Health outcomes, health service outcomes and quality of care

7.4.1 Population health

It is always difficult to disentangle the contribution that health care makes to improving health from overall improvements in socioeconomic status. This is particularly the case for the Republic of Moldova, which has a relatively small population so some trends over time have to be treated with caution – even in areas such as infant mortality, which can sometimes be taken as indicative of health system strength or weakness (see section 1.4). The rates are high for the WHO European Region but low in the international context. However, it is clear also that, despite overall improvements in maternal and infant mortality rates, poor access to antenatal care, particularly for poor pregnant women, is a major factor in both infant and maternal deaths in the Republic of Moldova (Government of the Republic of Moldova, 2010b).

Avoidable mortality (i.e. deaths that should not occur if people have access to timely and effective health care) is not routinely used as an indicator of health system performance. However, a recent survey in the Republic of Moldova found the five-year cancer survival rates to be substantially lower than EU averages: only 41% of women diagnosed with breast cancer are still alive five years later in Moldova, while 79% of women in the EU are (Sanigest Solutions, 2010). For cervical cancer, the Moldovan five-year survival rate is 26%, compared with 63% in the EU; for cancer of the uterus it is 50% (76% in the EU) and for prostate cancer it is 27% (76% in the EU) (Sanigest Solutions, 2010).

The high incidence of TB in the population and particularly the large number of patients with multidrug-resistant TB may also been taken as indicative of weaknesses in TB treatment services. Certainly, TB is a major public health issue; however, it is also important to see these data as indicative of effective TB surveillance in the health system (Atun et al., 2010; Zignol et al., 2012). Potentially, the falling TB incidence since 2005 reflects a genuine improvement in TB treatment and the successful implementation of the WHO DOTS strategy (directly observed treatment, short-course), given that socioeconomic conditions did not improve at the same rate (Soltan et al., 2008).

7.4.2 Health service outcomes and quality of care

It is difficult to assess overall quality in the delivery of health services because the necessary data for such indicators are not routinely collected and made available. For example, patient-reported outcome measures are not routinely used, and in-hospital mortality rates for acute admissions are not collected. Patient safety data are also not routinely collected and analysed. For example, although data on post-operative complications in general are collected, they are not broken down by cause or contributory factors and so they cannot be used as patient safety indicators.

Nevertheless, process indicators such as vaccination coverage rates show that preventive care as one feature of the health system is relatively strong (see section 1.4). Although there is some evidence of a minority of urban parents resisting vaccination (Government of the Republic of Moldova, 2010b), current vaccination rates are over 97% for measles, TB, hepatitis B and polio and 89.8% for DPT. Revaccination campaigns in response to outbreaks of childhood diseases (e.g. mumps) have also been successful in containing the epidemic and extending coverage in the population. There were no measles cases confirmed in the Republic of Moldova for 2008, 2009 and 2010 (WHO Regional Office for Europe, 2012b). Hepatitis B incidence has fallen from 49.8 per 100 000 population in 1994, when total vaccination for newborn babies began, to 2.95 in 2010, which is below the CIS average (WHO Regional Office for Europe, 2012b). The success in controlling hepatitis B is a direct result of specific measures to combat the infection (Iarovoi et al., 2008).

However, the quality of care for chronic conditions is more difficult to assess. The quality of care for people with diabetes might well be improving, given that the number of hospital admissions of patients with diabetic coma has been falling, as has the number of patients who subsequently die, even though diabetes prevalence has been consistently increasing. In 2002, there were 108 cases of diabetic coma with 8 subsequent deaths; in 2006 there were 42 cases and 7 deaths, and in 2009 there were 22 cases and 3 deaths (Government of the Republic of Moldova, 2011). Certainly, premature mortality from diabetes (at age 64 years and under) has been falling steadily since 1999 (WHO Regional Office for Europe, 2012b). Nevertheless, the treatment of hypertension, as a key avoidable risk factor for cardiovascular diseases, has been shown to have improved little over a similar period. Survey data from 2001 found that 24.3% of a representative population sample had been diagnosed with hypertension, but 78.5% (95% confidence interval, 74.9–82.1) of them were taking their blood pressure medication irregularly; a comparable survey in 2010 found that 32.3%

of respondents reported having high blood pressure, but 73.1% (95% confidence interval, 69.5–76.7) reported irregular treatment (Roberts et al., in press). This is particularly significant given the high rates of cardiovascular mortality in the Republic of Moldova (see Table 1.4), and is supported by a qualitative study of family doctors where the adequate treatment of hypertension was highlighted as a real challenge by respondents (Wallace & Brinster, 2010).

7.4.3 Equity of outcomes

Data and studies on health services outcomes in the Republic of Moldova cannot yet be meaningfully broken down by socioeconomic group, gender or geographical region.

7.5 Health system efficiency

7.5.1 Allocative efficiency

There are systems in place to ensure that health spending is directed towards the most cost-effective branches of the health sector – primary care and public health. There is a budgetary mechanism to fix minimum allocations to primary care to prevent more money being spent at the high-technology tertiary care level than at the primary care level; these decisions are based on available evidence from international experience and WHO recommendations (see sections 4.1.1 and 5.3). These budgetary mechanisms mean that allocations to primary care have been increasing despite the resource constraints arising from the global economic crisis. Not less that 35% of NHIC spending should go to purchasing primary care; the percentages are developed by the Ministry of Health with the NHIC in parallel with developing the benefits package and are fixed in annual budget law to ensure allocative efficiency.

Other programmes are assessed for cost–effectiveness based on international experience of tobacco control, cervical cancer screening and so on. Previously cost–effectiveness was not taken into consideration, but there are mechanisms now for taking it into account. Political decisions all have to be tested for cost–effectiveness, although politicians are not bound to take evidence on board in their final decision-making.

Risk-adjusted per capita payments are used in paying primary care providers and they have been successful in effectively allocating more resources to practices that have a large number of older people on their books (see section 3.7.1).

7.5.2 Technical efficiency

There is potential for the technical efficiency of the Moldovan health system to improve much more than it has since 2004. For example, the NHIC now contracts with hospitals in a way that means day-care surgery can be carried out and funded (see section 5.4.1), but it is not clear if this is happening in practice. Some case types that were previously managed on an inpatient basis have been shifted out of hospitals, for example palliative care and long-term care (see sections 5.8 and 5.10); however, again, there is more scope for such initiatives to shift the balance. The average length of stay has been falling as hospitals are no longer reimbursed according to bed-days, and DRGs are currently being piloted in nine hospitals (see section 4.1.2). Yet, a high proportion of hospitalizations result from ambulance care (32.5%) rather than via the family doctor (35.8%), and 17.4% are self-referrals (many of whom are uninsured or come from rural areas) – this would indicate that there is still scope to improve efficiency (PAS, 2011).

Work is ongoing to improve the technical efficiency of pharmaceutical care by encouraging generic prescribing and looking at the reimbursement of pharmaceuticals according to the average price of drugs on the market (including generics and brand names) in order to ensure that a greater percentage of the cost of a generic drug would be covered (see section 2.8.4). Nevertheless, the prohibitive cost of pharmaceuticals in the Republic of Moldova shows that there is scope for considerable improvements in the technical efficiency of pharmaceutical care, which would also improve access to pharmaceuticals for the population (see section 5.6).

Policies to change the skill mix, staff turnover and productivity of health workers have had a minimal impact so far on technical efficiency in this area (see section 4.2).

7.6 Transparency and accountability

Transparency and accountability are challenging areas for development in the Republic of Moldova, where informal working is a significant feature of the economy. The impact of a large informal sector impacts on the health system in a number of ways but particularly through resource generation, as payroll contributions are only levied on formal incomes and those working informally need to purchase their own insurance cover (see section 3.3.1). The persistence of informal payments in the health system may also be taken as symptomatic

of a wider problem with informal economic activity in the country (see section 3.4.3). Informal payments have fallen since the introduction of MHI, but they are still high despite policies to inform patients of their rights so they do not feel they have to pay informally, and to ensure that explicit price lists for services are clearly displayed (see section 3.4.3).

Public participation in the development of health policy, largely through NGOs and patient support groups, is increasing overall transparency in the decision-making process, although progress has been slow (see section 2.9.5). There are also greater checks and balances on health financing policy through fiscal mechanisms regulating the allocation of funds and contracting for provider payment. Great efforts have been made to increase patient awareness of the health benefits to which they are entitled through the MHI system (see section 3.3.1).

Ensuring accountability in the health system is also a key concern for the Ministry of Health, which is in the process of developing a performance monitoring framework; the first report is to be approved at the end of June 2012. For the previous two years, the Ministry of Health was much more active in this sphere, and the Department for Analysis Monitoring and Evaluation of Policies is dedicated to the monitoring and evaluation of the whole system on an annual basis. To support transparency, the Ministry of Health has sought to develop policies with clear aims and objectives as well as including monitoring and evaluation elements in all policies. Data on population health status and the health system have been made easily accessible on the web sites of the Ministry of Health and subordinated agencies. Civil society and the Ministry of Health have high expectations for increasing transparency and accountability in the health system. It is less clear that this enthusiasm is shared by all health personnel working in the system.

8. Conclusions

The Moldovan experience presented here shows how the health system has been adapted to fit the new reality after the Republic of Moldova gained independence from the Soviet Union – demographic transition, epidemiological transition, resource constraint following socioeconomic and political change, lifestyle changes, rapid out-migration, and external factors such as financial crisis. Even within the Soviet Union, the Republic of Moldova was not wealthy and there were serious health challenges that were never fully addressed by the Semashko health system, but the system now has to deal with the double burden of communicable and noncommunicable disease control and it does not have sufficient human, physical or financial resources to do so.

This socioeconomic context for health reform shows how much has been achieved. The introduction of MHI in 2004 acted as a catalyst for the modernization of the health system and has provided a sustainable financing mechanism for the health sector. Reformers in the Republic of Moldova learned from the experience of other countries in the region, for example to ensure that MHI served to improve the technical and allocative efficiency of the health system so that increased budgetary resources for health were spent more rationally. It was taken as an opportunity to make very real changes to the way services were organized as well as financed. For example, the Republic of Moldova is currently the only CIS country where primary care is delivered by family doctors nationwide and there are generally no narrow specialists working at the primary care level; allocative efficiency has been built into financing mechanisms through, for example, the minimum allocations for primary care, and technical efficiency has been growing through the effective use of selective contracting.

Such a radical break from the way services were organized and financed in the Semashko system was made possible because there was real political commitment to change. This commitment meant reforms could be implemented

rapidly once the groundwork had been done. Therefore, the Moldovan experience shows how the political timing of reform is the key factor in actually implementing change. Political commitment to health is also reflected in the fact that there is a Health System Development Strategy that acts as a roadmap for health sector reform and meaningful intersectoral collaboration for population health – even through changes of government and political uncertainty.

The remaining challenges are to improve equity in financing by further broadening MHI coverage to ensure poor households are adequately protected from impoverishing health expenditure and by reducing the substantial proportion of OOP payments in health expenditure through refinement of the scope of the MHI benefits package and the encouragement of transparency in the health system. Further improvements in technical and allocative efficiency are also planned through the rationalization of specialized and highly specialized care – particularly inpatient provision. A key challenge is to ensure more equitable access to pharmaceuticals without undermining the financial sustainability of the health system. However, the other pressing issue is the need to address human resource shortages in the system. Ensuring adequate human resources are available to meet demand, particularly in rural areas, is now an urgent challenge that impacts on all aspects of the system. The foundations of the system are strong, but building it up so it can truly meet the health challenges it faces will require great human capital.

9. Appendices

9.1 References

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9.2 Useful web sites

Government, Republic of Moldova, official web site (pages in Romanian, English and Russian):
http://www.gov.md/

Medicines Agency (pages in Romanian, English and Russian):
http://www.amed.md

Ministry of Health of the Republic of Moldova (pages in Romanian, English and Russian):
http://www.ms.gov.md/

National Bureau of Statistics of the Republic of Moldova (pages in Romanian, English and Russian):
http://www.statistica.md

National Centre of Health Management (Romanian only):
http://www.cnms.md/

National Centre of Public Health (Romanian only):
http://www.cnsp.md/

National Health Insurance Company (Romanian only):
http://cnam.md/

Parliament, Republic of Moldova, official web site (Romanian only):
http://www.parlament.md/

President House, Republic of Moldova, official web site (pages in Romanian, English and Russian):
http://www.prezident.md/

Republic of Moldova, official web site (pages in Romanian, English and Russian):
http://www.moldova.md/en/start/

State University of Medicine and Pharmacy "Nicolae Testemitanu" of the Republic of Moldova (pages in Romanian, English, German and Russian):
http://www.usmf.md/

WHO, Country Office for the Republic of Moldova (English only):
http://www.euro.who.int/en/where-we-work/member-states/republic-of-moldova

World Bank Country Office in Republic of Moldova (Romanian and English):
http://www.worldbank.org/en/country/moldova

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

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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.

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