

# Health Systems in Transition

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## Romania

Health system review

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# Health Systems in Transition

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## Romania:

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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 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](mailto:info@obs.euro.who.int).

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



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This edition was written by Cristian Vlădescu (National School of Public Health, Management & Professional Development), Gabriela Scîntee (National School of Public Health, Management & Professional Development) and Victor Olsavszky (WHO Country Office in Bosnia and Herzegovina). It was edited by Cristina Hernández-Quevedo and Anna Sagan, working with the support of Ellen Nolte, the coordinator of the London hubs of the Observatory. The basis for this edition was the previous HiT on Romania, which was published in 2008, written by Cristian Vlădescu, Gabriela Scîntee and Victor Olsavszky and edited by Sara Allin and Philipa Mladovsky.

The Observatory and the authors are grateful to Assoc. Prof. Dr Florentina Furtunescu (Department of Complementary Sciences) and Prof. Dr Alexandru Rafila (Chief of Department of Epidemiology and Microbiology), both from the University of Medicine and Pharmacy “Carol Davila” Bucharest for reviewing the report. The authors would also like to thank Nick Fahy for his technical assistance in reviewing the text and for his reworking of the executive summary.

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The Observatory team working on HiTs is led by Josep Figueras, Director; Elias Mossialos, Martin McKee, Reinhard Busse (Co-directors); Richard Saltman, Ellen Nolte, Ewout van Ginneken 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, Alison Chapman (copy-editing) and Pat Hinsley (typesetting).

## List of abbreviations

AIDS	acquired immune deficiency syndrome
ALOS	average length of stay
APL	adaptable programme loan
CAM	complementary and alternative medicine
CASAOPSNAJ	Health Insurance House covering employees of the Ministry of National Defence, Ministry of Internal Affairs, Ministry of Justice and agencies related to national security
CME	continuing medical education
CT	computed tomography
DHIH	district health insurance house
DPHA	district public health authority
DRG	diagnosis-related group
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Agreement
EHIC	European Health Insurance Card
EIB	European Investment Bank
EC	European Commission
ECDC	European Centre for Disease Prevention and Control
ECG	electrocardiography
EEA	European Economic Area
EHIS	European Health Interview Survey
EIB	European Investment Bank
ENCR	European Network of Cancer Registries
ESPAD	European School Survey Project on Alcohol and Other Drugs
EU	European Union
EUnetHTA	European Health Technology Assessment network
FFS	fee-for-service
GDP	gross domestic product
GGHE	general government expenditure on health
GMP	good manufacturing practice
HAS	French National Authority for Health
HDI	Human Development Index

HIA	health impact assessment
HLY	healthy life year
HTA	health technology assessment
IBRD	International Bank for Reconstruction and Development
IMF	International Monetary Fund
INN	International Nonproprietary Name
IOM	International Office for Migration
IQWiG	Institute for Quality and Efficiency in Health Care
ISCED	International Standard Classification of Education
ICT	information and communication technology
IVF	in vitro fertilization
LTC	long-term care
MAH	marketing authorization holder
MRI	magnetic resonance imaging
NAMMD	National Agency for Medicines and Medical Devices
NATO	North Atlantic Treaty Organization
NCCDSC	National Centre for Communicable Diseases Surveillance and Control
NGO	non-governmental organization
NHIF	National Health Insurance Fund
NHIH	National Health Insurance House
NICE	National Institute of Health and Care Excellence
NIPH	National Institute of Public Health
NSPH-MPD	National School of Public Health Management and Professional Development
NYHA	New York Heart Association
OECD	Organisation for Economic Co-operation and Development
OOP	out-of-pocket
OSIM	State Office for Inventions and Trademarks
OTC	over the counter
PaSQ	Patient Safety and Quality of Care
PET	positron emission tomography
PHARE	Programme of Community Aid to the countries of Central and Eastern Europe
PKU	phenylketonuria
P-PP	public-private partnership
PPP	purchasing power parity
RO-DRG	Romanian diagnosis-related group
SISSP	Integrated Information System for Public Health
SIUI	Integrated Unique Informatics System
SMC	Scottish Medicines Consortium
SMURD	Mobile Emergency Service for Resuscitation and Extrication
TB	tuberculosis
THE	total health expenditure

UNHCR	United Nations High Commissioner for Refugees
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VAT	value added tax
VHI	voluntary health insurance
WHO	World Health Organization



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## Abstract

**T**his analysis of the Romanian health system reviews recent developments in organization and governance, health financing, health care provision, health reforms and health system performance.

The Romanian health care system is a social health insurance system that has remained highly centralized despite recent efforts to decentralize some regulatory functions. It provides a comprehensive benefits package to the 85% of the population that is covered, with the remaining population having access to a minimum package of benefits. While every insured person has access to the same health care benefits regardless of their socioeconomic situation, there are inequities in access to health care across many dimensions, such as rural versus urban, and health outcomes also differ across these dimensions. The Romanian population has seen increasing life expectancy and declining mortality rates but both remain among the worst in the European Union (EU). Some unfavourable trends have been observed, including increasing numbers of new HIV/AIDS diagnoses and falling immunization rates.

Public sources account for over 80% of total health financing. However, that leaves considerable out-of-pocket payments covering almost a fifth of total expenditure. The share of informal payments also seems to be substantial, but precise figures are unknown. In 2014, Romania had the lowest health expenditure as a share of gross domestic product (GDP) among the EU Member States.

In line with the government's objective of strengthening the role of primary care, the total number of hospital beds has been decreasing. However, health care provision remains characterized by underprovision of primary and community care and inappropriate use of inpatient and specialized outpatient care, including care in hospital emergency departments. The numbers of physicians and nurses are relatively low in Romania compared to EU averages.

This has mainly been attributed to the high rates of workers emigrating abroad over the past decade, exacerbated by Romania's EU accession and the reduction of public sector salaries due to the economic crisis.

Reform in the Romanian health system has been both constant and yet frequently ineffective, due in part to the high degree of political instability. Recent reforms have focused mainly on introducing cost-saving measures, for example, by attempting to shift some of the health care costs to drug manufacturers (by claw-back) and to the population (through co-payments), and on improving the monitoring of health care expenditure.

## Executive summary

Romania is the eighth largest country in the European Union (EU), situated in the south-eastern part of central Europe. Its population is also one of the largest in the EU (seventh largest) but has been decreasing since the 1990s, due to declining fertility and birth rates, relatively high death rates and outward migration.

Romania is an upper-middle income country with gross domestic product (GDP) per capita of US\$ 10 000. The poverty rate in Romania is the second highest in the EU and the country has the fifth highest score for income inequality in the EU. Macroeconomic policy since the global economic crisis of 2008–09 has included an ambitious package of macro-stabilization and structural measures, which have kept public debt and the unemployment rate at relatively low levels, though not without triggering some unrest.

The basic administrative unit of the country is the district (*judet*). Romania is divided into 41 districts, plus the municipality of Bucharest as a separate entity. Corruption and lack of modern communication routes are regarded as major obstacles to the economic development of the country; Transparency International reported that three-quarters of Romanians consider political parties to be corrupt.

Life expectancy at birth has increased over recent decades but, at 75.1 years, remains considerably lower than the EU average of 80.9 years. A striking characteristic of mortality patterns in Romania concerns cardiovascular disease, mortality from which is among the highest in the EU. There are differences in mortality rates between geographical areas (higher in the south) and also between urban and rural areas (higher in rural areas). Infant and maternal mortality rates are the highest among EU Member States – 8.8 per 100 000 compared to the EU average of 3.8 for infant mortality, and 13 per 100 000 compared to 4.9 for maternal mortality.

In 2003, the incidence of tuberculosis (TB) rose to the highest in the EU; this has since decreased but remains higher than before the end of Communism. The incidence of human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) has also been rising steadily; of these cases, almost half were children under the age of 14 at the time of diagnosis. Another unfavourable trend is the decline in immunization rates; vaccination rates against diphtheria-tetanus-pertussis and poliomyelitis fell from 99% in 2000 to 89% in 2013.

## Organization and governance

The Romanian health system is organized at two main levels, national and district, mirroring the administrative division of the country, with the national level responsible for setting general objectives and the district level responsible for ensuring service provision according to the rules set at the central level. The system remains highly centralized, with the Ministry of Health being the central administrative authority in the health sector responsible for the stewardship of the system and for its regulatory framework. The Ministry of Health also exerts indirect control over some functions that have been recently decentralized to other institutions and that are only just beginning to assert regulatory functions, such as the National Authority for Quality Management in Health Care. District public health authorities (DPHAs) represent the Ministry of Health at the local level. The other key actor at the central level is the National Health Insurance House (NHIH), which administrates and regulates the social health insurance system. This organizational structure has been in place since 1999, having replaced the Semashko model. The NHIH is also represented at district level by district health insurance houses (DHIHs).

A 'Framework Contract' lays down the definition of the statutory benefits package and contains information on the terms under which patients can obtain services, provider payment mechanisms, the relationship between providers and the DHIHs, terms of contracts (for example, quality criteria for providers), providers' rights and obligations, and transposition of EU regulations with relevance to health care provision. It is adopted every two years and forms the basis for individual contracts between the DHIHs and health service providers.

For pharmaceuticals, a positive list is elaborated with input from the health technology assessment (HTA) department at the Ministry of Health established in 2012. So far, all HTA efforts have been concentrated on pharmaceutical products, but there are plans to develop HTA methodologies for other technologies, such as diagnostic procedures, surgical interventions and

screening. Recent regulatory changes have been in the area of pharmaceuticals and included the introduction of a claw-back system requiring the repayment of a percentage of profits from manufacturers and distributors (2011), as well as electronic prescribing (2012).

Quality of care is one of the weaker points of health care regulation. It is not regulated by any specific act and is one area for which secondary legislation is only just being developed. Monitoring of quality mainly focuses on financial aspects and the volume of services, and some quality criteria are only checked 'on paper' when contracts are signed.

Although extensive data on the functioning of the health system and on population health status are collected, the information systems currently suffer from a high degree of data fragmentation and duplication, and the use of existing data in planning and decision-making is poor. This may improve when the two main information systems are integrated, although how and when this may happen is unclear.

## Financing

According to WHO Global Health Expenditure data, in 2014 Romania was last among the EU Member States in terms of health expenditure as a share of GDP. After almost doubling in the period 1995–2010 (admittedly from a low base), health care expenditure in Romania as a share of GDP has been decreasing steadily since 2010, from 5.8% of GDP in 2010 to 5.6% in 2014. In 2013, total health expenditure (THE) per capita in Romania was the equivalent of US\$ 988, well below the EU average of US\$ 3379.

Although the total is low, the proportion that is publicly funded is relatively high; over 80% of THE is publicly funded, which is just above the EU average of 76%. Most public funding comes from the health insurance contributions to the National Health Insurance Fund (NHIF) – 67% in 2013. The share of out-of-pocket (OOP) payments is the second largest source of revenue for health care spending (19% in 2014), while the contribution of voluntary health insurance (VHI) is marginal (0.1%). The share of informal payments is thought to be substantial, but the size is not known. The proportion of costs covered by the NHIF varies across goods and services, with inpatient care accounting for the highest share at 37.2%. The other major category of spending is medical goods, mainly pharmaceuticals (25.2%), although it has to be noted that this figure represents some debts accumulated over previous years (in particular since the

removal of the ceiling on reimbursed drugs in 2008). While the share of THE spent on drugs in Romania is particularly high compared to other countries in Europe, absolute per capita pharmaceutical expenditure remains low compared to western Europe. On the other hand, the share of THE spent on outpatient care is among the lowest in Europe, according to OECD data.

While social health insurance is in principle compulsory, in practice it covers only around 86% of the Romanian population, the main uninsured groups being people working in agriculture or those not officially employed in the private sector; the self-employed or unemployed who are not registered for unemployment or social security benefits; and Roma people who do not have identity cards. Insured individuals are entitled to a comprehensive benefits package while the uninsured are entitled to a minimum benefits package, which covers life-threatening emergencies, epidemic-prone/infectious diseases and care during pregnancy.

The implementation of preventive national health programmes, some emergency care and capital investments are funded by the Ministry of Health. Local budgets fund hospital maintenance, repairs and inpatient meals. OOP payments consist mainly of direct payments for services offered by private providers, co-payments for drugs, which can be up to 80% of the retail price for some expensive prescription drugs, and other services. Each of the 43 DHIHs receives a budget from the NHIH to purchase services on behalf of the insured population in their respective geographical areas.

Primary care physicians own their practices and receive payments based on a mix of age-weighted capitation and fee-for-service (FFS). Ambulatory care specialists who own their practice and have entered into contracts with the DHIHs are paid on a FFS basis, but specialists working in hospital ambulatory units receive a salary, as do other hospital physicians. Nurses are paid a salary in both the public and private health care sectors. Hospitals receive prospective payments consisting of a mix of payment methods, including the Romanian diagnosis-related groups (RO-DRG) system. Emergency services and certain public health care services are paid from the state budget.

## Physical and human resources

In 2014, there were 527 hospitals in Romania, over two thirds of which were public. While the number of public hospitals has fallen in recent years, the number of private hospitals has seen the opposite trend. The former was mainly due to the closure of 67 poorly performing public hospitals in 2011, while the

latter was largely driven by the change of payment for day surgery and day care cases in 2014. There is no officially available information regarding the condition of public hospital buildings; however, since the majority were built in the 1970s and 1980s, and have not been well maintained, it is likely that their technical condition is rather poor. Hospitals are evenly distributed across the national territory, but accessibility is limited in certain geographical areas, such as the Danube Delta and remote mountain regions, and in rural areas. The 2014–2020 Health Strategy envisages a restructuring of the regional hospital network with the goals of reducing the number of hospital facilities and providing integrated services in order to improve coordination of treatment.

The total number of hospital beds per 1000 population decreased from 7.9 in 1990 to 6.3 in 2013 (lower than the EU average of 11.7). This is in line with the government's efforts to reduce the number of hospital beds and strengthen the role of primary care, which was recently (in 2014) reinforced by the decision to subject the reimbursement of hospital services to limits on the total number of beds in the country. The reduction in the number of beds can mainly be attributed to the decrease in numbers of acute beds; the number of psychiatric beds per 1000 population fell less than the number of acute beds, while the number of beds in nursing and elderly homes increased. The average length of hospital stay in all hospitals decreased from 11.4 days in 1990 to 6.3 days in 2013 (similar to the EU average of 6.3 days), and the bed occupancy rate increased from 68% in 1990 to 84% in 2005, decreasing to 73% in 2013 (slightly below the EU average of 77%).

Family physicians and ambulatory care specialists pioneered the use of information and communication technology (ICT) in the health sector when electronic reporting requirements were introduced in 1999. Hospitals started to use electronic reporting with the introduction of the DRG system in 2006. More recently, in 2012, electronic prescribing was introduced for all reimbursed pharmaceuticals and is currently used across the country. Since May 2015, the National Health Insurance Card has been in use, which contains patient identification data (and may contain medical data, at the patient's request). An Electronic Health Record for patient data is currently being implemented.

Despite increasing trends, in 2013 the numbers of physicians and nurses per 100 000 people were relatively low in Romania: 248 doctors per 100 000 compared to 347 in the EU, and 581 nurses per 100 000 compared to 850 in the EU. In 2013, 23.5% of physicians specialized in family medicine, which is lower than in 2010 (29%) and at odds with efforts to strengthen the role of primary care.

The relatively low number of physicians and nurses has mainly been caused by high rates of external migration over the past decade, exacerbated by Romania's EU accession and the economic crisis. The most common reasons for leaving the country are: lower salaries compared to non-health professions; low social status; lack of performance recognition; limited career development opportunities; and wide discrepancies between the levels of required competencies and working conditions that do not enable the skills acquired to be applied in practice (for example, lack of equipment and supplies). Some measures that have been implemented in the past five years to halt the exodus of health workers (such as slight increases of wages for young doctors) have failed to make a difference. One of the negative effects of this trend is a shortage of some medical specialties and skills at the hospital level, especially in deprived regions.

## Provision of services

The provision of public health care services in Romania is coordinated by the Ministry of Health and mainly overseen by the National Institute of Public Health (NIPH) and delivered by the DPHAs, and other specialized institutions, plus some carried out as part of health care services provision (mainly by family medicine physicians). Some identified weaknesses in the provision of public health care services include: environmental risk monitoring, such as gaps in the monitoring of drinking water and bathing basins; communicable disease surveillance, such as underreporting of nosocomial infections in hospitals; and health promotion and disease prevention, with prevention weak in most national health programmes on specific conditions or issues, such as cancer or mother and child health.

Primary care is provided by family medicine physicians, mainly in solo practices, under contracts with the DHIHs. Family medicine physicians have a gatekeeping role, although direct access to a specialist is possible for certain specific conditions. Family medicine physicians are not required to assure provision of primary care out of hours, at weekends or during public holidays, but they do on-duty calls in continuity care centres. Patients often rely on ambulance services and/or hospital emergency departments if they need medical assistance, including non-urgent care and within regular office hours. Although strengthening of primary care has been on the policy agenda since 1990, primary health care services remain underused and there is overutilization of hospital services. There are inequities in access to primary care, with access



poorer in rural areas. A number of specific measures have been implemented in recent years to increase access to primary care services in rural areas, but there is no evidence of their effectiveness.

Specialized ambulatory care is provided through a network of hospital outpatient departments and polyclinics, specialized medical centres, centres for diagnosis and treatment, and individual specialist physician offices under contract with the DHIHs. Specialized physicians who work in ambulatory care generally divide their time between the public and private sectors.

Inpatient care is provided by a large hospital network, with hospitals varying in terms of size, competencies and catchment areas. Similar to primary care, the accessibility of ambulatory specialized care and inpatient care is poorer in rural areas compared to urban areas. Day care is provided in hospitals and health care centres under contract with the DHIHs. The most frequent health care services provided on a day care basis in Romania include hypertension and diabetes monitoring, radiotherapy, monitoring of HIV/AIDS patients and endoscopy. Day care services expanded considerably in 2014, following an amendment of legislation that enabled a wider range of services to be provided as day care and a change in the payment for day surgery and day care, although there remains scope for further increasing the provision of day care in Romania.

At the hospital level, emergency care is provided by hospital emergency units. These units can be accessed directly through self-referral or by ambulance. A high percentage of ambulance call-outs are resolved at the patient's home and do not require admission to hospital, indicating overuse of ambulance services and shortcomings in primary care.

While it has increased over the years, pharmaceutical consumption in Romania remains low compared to the levels observed in other EU Member States. There is concern about the underuse of generics in Romania, which has been attributed to the claw-back mechanism, price-setting procedures and lack of incentives to encourage the use of generics. There are also concerns that the lower prices of some medicines in Romania compared to other EU Member States may lead to parallel exports and consequent shortages in Romania.

Rehabilitation care is provided in ambulatory and inpatient settings, but access to such care is not adequate and there are long waiting lists. Access to long-term care (LTC) and palliative care is also poor, and Romania has one of the lowest residential LTC coverage rates in Europe, with only 7.9% of the needs for palliative care covered in 2014. Mental health care is still largely provided in institutional settings and a shift to community settings has yet to be achieved.

## Principal health reforms

The Romanian health care system has been in a perpetual state of reform since the collapse of the communist regime in 1989, with 26 ministers of health since then. Reform initiatives since 2008 have included a failed attempt, from 2008 to 2012, to undertake a major overhaul of the health care system. The reform failed, in part, because of poor communication of its objectives to the public and, more importantly perhaps, because of political changes in 2012 as a consequence of parliamentary elections that year. However, some elements of the proposed reform have since been put into practice by the new government, in place from November 2015.

Other reforms implemented since 2008 have focused mainly on introducing cost-saving measures, including an attempt to shift costs to drug manufacturers through introducing the claw-back mechanism in 2009, and to the population through amending co-payments for drugs in 2013, along with a reorganization of the hospital sector (2010–2014). Many policies were shaped by agencies such as the EU, IMF and World Bank; for example, legislative changes were undertaken in the context of Romania's EU accession.

Reform initiatives have often taken a long time to be implemented because of delays in the development of secondary legislation or contradictions between different pieces of legislation. Policies have frequently required multiple modifications and additions, as they were not clearly formulated to start with. Some policies were never implemented at all, mainly because of political instability. There have generally been few efforts to assess policy impact.

## Assessment of the health system

The main objectives of the health system, as stated in the 2013–2016 Government Programme, are to achieve a health system that enables and supports the attainment of the best possible health of the citizens and that contributes to improving their quality of life. These goals are also addressed by the National Health Strategy 2014–2020, the main multiannual planning document for the health sector, although there is no current assessment of the Strategy's implementation process.

The national social health insurance system covers all Romanian citizens and provides a comprehensive benefits package. OOP payments have increased in recent years, from 15% of THE in 2003 to 19% in 2014, although private

spending on health is not considered to be catastrophic. Moreover, the proportion of the population reporting an unmet medical need due to lack of affordability decreased in recent years; however, it remains high compared to the EU average (9.1% in Romania vs. 2.4% in the EU, in 2013). On the whole, health care financing in Romania is somewhat progressive, with health insurance contributions being the main source of health care financing and vulnerable population categories exempted from the contribution payment and from cost sharing.

While every insured person has access to the same health care benefits regardless of their socioeconomic conditions, there are inequities in access to health care with worse access in rural areas, for socioeconomic groups such as pensioners, the unemployed, self-employed and agricultural workers, the Roma population and women. Furthermore, there are differences in health outcomes between rural and urban areas as well as between the genders.

While population health is improving overall, life expectancy and mortality in Romania lag behind the EU averages. Romania also scores poorly in terms of mortality that is considered amenable to timely and effective health care or that is preventable through wider public health policies, when compared to EU averages.

Provision of health care services in Romania remains characterized by overprovision of highly specialized inpatient care and underutilization of primary and community care. This can to some extent be seen as a legacy of the Semashko model of care and is perpetuated by poor planning and allocation decisions.

In general, information on the quality of care is poor. This is largely because quality assurance in health care is still under development and data on the quality of care used in international comparisons are not available in Romania, or data are unreliable. Also, patient safety indicators are not usually collected by health care providers, despite safety being a concern among Romanian patients.

There are no recent national studies on public satisfaction with the health system. According to Eurobarometer surveys, there are relatively low levels of satisfaction with the overall quality of health care among the Romanian population compared to the EU average and this perception has not changed in recent years.

Political corruption is perceived to be a major problem in the country, including in the health care sector, due to the high prevalence of informal payments. The new Strategy recognizes the need to improve transparency in

both decision-making and citizens' involvement. It has to be noted, however, that patients' associations are increasingly making their voice heard in policy-making. The performance of the health system is not generally evaluated and it is therefore difficult to assess whether the objectives set by the government are met.

# 1. Introduction

Romania is the eighth largest country in the European Union (EU), situated in the south-eastern part of central Europe. Its population is also one of the largest in the EU (seventh largest) but has been decreasing since the 1990s, due to declining fertility and birth rates, relatively high death rates and outward migration.

Romania is an upper-middle income country with gross domestic product (GDP) per capita of US\$ 10 000. The poverty rate in Romania is the second highest in the EU and the country has the fifth highest score for income inequality in the EU. Macroeconomic policy since the global economic crisis of 2008–09 has included an ambitious package of macro-stabilization and structural measures, which have kept public debt and the unemployment rate at relatively low levels, though not without triggering some unrest.

The basic administrative unit of the country is the district (*judet*). Romania is divided into 41 districts, plus the municipality of Bucharest as a separate entity. Corruption and lack of modern communication routes are regarded as major obstacles to the economic development of the country; Transparency International reported that three-quarters of Romanians consider political parties to be corrupt.

Life expectancy at birth has increased over recent decades but, at 75.1 years, remains considerably lower than the EU average of 80.9 years. A striking characteristic of mortality patterns in Romania concerns cardiovascular disease, mortality from which is among the highest in the EU. There are differences in mortality rates between geographical areas (higher in the south) and also between urban and rural areas (higher in rural areas). Infant and maternal mortality rates are the highest among EU Member States – 8.8 per 100 000 compared to the EU average of 3.8 for infant mortality, and 13 per 100 000 compared to 4.9 for maternal mortality.

In 2003, the incidence of tuberculosis (TB) rose to the highest in the EU; this has since decreased but remains higher than before the end of Communism. The incidence of human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) has also been rising steadily; of these cases, almost half were children under the age of 14 at the time of diagnosis. Another unfavourable trend is the decline in immunization rates; vaccination rates against diphtheria-tetanus-pertussis and poliomyelitis fell from 99% in 2000 to 89% in 2013.

## 1.1 Geography and sociodemography

Romania is situated in the south-eastern part of central Europe. It borders Moldova to the east, Ukraine to the north, Hungary and Serbia to the west, Bulgaria to the south and the Black Sea to the south-east (Fig. 1.1). Most of the border with Bulgaria and a large part of the border with Serbia are formed by the Danube River. The Romanian coast of the Black Sea stretches for 245 km, enabling connections with countries in the Black Sea and Mediterranean basins.

**Fig. 1.1**

Map of Romania



Source: United Nations, 2016.

Romania's climate is temperate. Its terrain lies on three main levels, each constituting about a third of the total area: the highest level is the Carpathians (highest peak, 2544 m); the middle level corresponds to the sub-Carpathian hills and plateaus; and the lowest level contains the Danube Delta and other plains.

Romania is the eighth largest country in the EU in terms of surface area (237 500 km<sup>2</sup>) and the seventh largest in terms of population (19.9 million people in 2014; Table 1.1). The population has fallen by 14.2% since 1990, due to a decline in fertility and birth, relatively high death rates and outward migration.

**Table 1.1**

Trends in population/demographic indicators, 1980–2014 (selected years)

	1980	1990	1995	2000	2005	2010	2014
Total population (in millions)	22.24	23.20	22.68	22.44	21.32	20.25	19.9 <sup>c</sup>
Population, female (% of total)	50.7	50.7	50.9	51.1	51.2	51.4	51.5
Population ages 0–14 (% of total)	26.8	23.7	20.8	18.5	15.9	15.8	15.6
Population ages 65 and above (% of total)	10.2	10.4	12.1	13.6	15.2	14.8	16.9
Population ages 80 and above (% of total) <sup>a</sup>	n/a	1.7	2.1	1.7	2.4	3.5	3.8
Population growth (annual %)	0.7	0.2	–0.2	–0.1	–0.6	–0.6	–0.4
Population density (people per sq km)	96.6	101.2	98.8	97.7	92.7	88.0	86.5
Fertility rate, total (births per woman)	2.4	1.8	1.3	1.3	1.4	1.6	1.4 <sup>c</sup>
Birth rate, crude (per 1 000 people)	17.9	13.6	10.4	10.4	10.4	10.5	9.2 <sup>c</sup>
Death rate, crude (per 1 000 people)	10.4	10.6	12.0	11.4	12.3	12.8	12.7 <sup>c</sup>
Age dependency ratio (% of working-age population)	58.7	51.9	48.9	47.4	45.2	46.3	48.2
Urban population (% of total)	46.1	53.2	53.8	53.0	53.2	53.8	54.4
Education level (literacy rate (%) in population aged 15+) <sup>b</sup>	95.5	97.1	97.6	98.1	n/a	97.7	n/a

Source: World Bank, 2016.

Notes: <sup>a</sup>National Institute of Statistics, 2015a; <sup>b</sup>WHO Regional Office for Europe, 2016; <sup>c</sup>Estimate; n/a = no information available.

A 2014 OECD report on international migration estimated that in 2011 there were 3 million Romanians working abroad (OECD, 2014b). In 2014, there were 98 586 legal immigrants working or studying in Romania. Out of these, 57 471 were third country nationals and 41 115 were EU/EEA citizens (IOM, 2015). Temporary stay permits constitute 83% of all stay permits, with family ties/reunification being the main reason for stay (OECD, 2014b).

An increase in the number of refugees and asylum-seekers was observed after 2009. According to the United Nations High Commissioner for Refugees (UNHCR), there were 1069 refugees and 398 asylum-seekers in Romania in 2009 and 2426 refugees and 138 asylum-seekers in June 2015 (UNHCR, 2010, 2015).

According to the latest census (2011), 88.9% of the population was of Romanian origin. There is also a small ethnic minority (6.5% of the population) of Hungarian origin (born in Romania). The Roma population accounts officially for 3.3% of the total population and other nationalities for the remaining 1.3% (National Institute of Statistics, 2013). The Roma population is characterized by high poverty rate (75% live in poverty), high unemployment rate (36%), low education level (more than half of adult Roma have not completed the minimum compulsory level of education) and low rates of social health insurance coverage (51% for the Roma compared to 85% for the non-Roma population) (Ministry of European Funds, 2014; UNDP, 2012). One of the reasons for lower social health insurance coverage is not having an identity card, which precludes the Roma people from enrolling into the social security system (see section 3.3.1).

The official language is Romanian, but other languages are also spoken. In 2011, 86.5% of the population declared to be Orthodox, 4.6% Roman Catholic and 3.2% Protestant (National Institute of Statistics, 2013).

In terms of the attainment of higher education levels (ISCED 5 to 8, as defined by the 1997 International Standard Classification of Education), in 2015 Romania was placed last (together with Italy) among EU countries, with only 17.2% of its population aged 25–64 years achieving higher educational levels, while the EU average was 30.1% (Eurostat, 2016).

## 1.2 Economic context

Romania is classified by the World Bank as an upper-middle income country with GDP per capita (current US\$) of US\$ 10 000 in 2014, up from US\$ 4676 in 2005 (Table 1.2). The country experienced two recessions in the first decade after the revolution of 1989 (in 1990–92 and 1997–99) (EIU, 2009; Vlădescu et al., 2008b). Since 2000, a number of pro-growth macroeconomic policies have been implemented (see Vlădescu et al., 2008b for more information), including a flat-rate income tax and a new Labour Code (EIU, 2009). The pace of reforms slowed down following EU accession in 2007 (EIU, 2009).

Macroeconomic policy since the global economic crisis of 2008–09 included an ambitious package of macro-stabilization and structural measures implemented in 2011 with financial support from the International Monetary Fund (IMF), the European Commission (EC) and the World Bank. At the end of 2013, public debt increased from 34.6% in 2010 to 41.5% of GDP (Table 1.2). However, in that year, public debt was lower when compared with the EU average of 83.4% (World Bank, 2016). The government deficit was reduced



**Table 1.2**

Macroeconomic indicators, 1980–2014 (selected years)

	1980	1990	1995	2000	2005	2010	2014
GDP (current US\$) (in millions)	n/a	38 299	35 482	37 438	99 797	167 998	199 043
GDP, PPP (current international \$) (in millions)	n/a	120 319	121 906	128 515	204 136	335 689	405 015
GDP per capita (current US\$)	n/a	1 651	1 564	1 668	4 676	8 297	10 000
GDP per capita, PPP (current international \$)	n/a	5 186	5 374	5 726	9 575	16 580	20 348
GDP growth rate (annual %)	n/a	n/a	7.1	2.4	4.2	-0.8	2.8
General government final consumption expenditure (% of GDP)	n/a	13.3	13.7	17.2	17.1	15.9	14.2
Cash surplus/deficit (% of GDP)	n/a	0.9	-2.3	-5.7	-3.0	-5.9	-2.8 <sup>c</sup>
Tax revenue (% of GDP)	n/a	23.1	18.4	17.9	17.2	16.7	18.8 <sup>c</sup>
Public debt (% of GDP)	n/a	n/a	n/a	n/a	n/a	34.6	41.5 <sup>c</sup>
Value added in industry (% of GDP)	n/a	49.9	42.7	27.7	28.2	31.3	27.3
Value added in agriculture (% of GDP)	n/a	23.7	21.4	12.0	9.5	6.3	5.4
Value added in services (% of GDP)	n/a	26.3	35.8	60.2	62.3	62.4	67.4
Labour force (total, in millions)	n/a	10.4	11.3	11.9	9.8	9.6	9.5
Unemployment, total (% of labour force)	n/a	n/a	8.0	7.0	7.2	7.0 <sup>d</sup>	6.8 <sup>d</sup>
Relative at-risk-of-poverty rate <sup>a,b</sup>	n/a	n/a	n/a	n/a	n/a	21.1	22.4
Gini coefficient	n/a	n/a	n/a	29.3	29.8	28.2 <sup>d</sup>	27.3 <sup>d,e</sup>
Real interest rate (%)	n/a	n/a	11.4	7.5	6.7	8.2	6.6
Official exchange rate (lei per US\$, annual average)	0.0	0.0	0.2	2.2	2.9	3.2	3.3

Source: World Bank, 2016.

Notes: <sup>a</sup> National Institute of Statistics, 2015a; <sup>b</sup> Relative at-risk-of-poverty rate is defined as the share of people with an equalized disposable income (the value of the household consumption from own resources included or excluded) below the at-risk-of-poverty threshold, which is set at 60% of the equalized disposable income (National Institute of Statistics, 2015a); <sup>c</sup> 2013 data; <sup>d</sup> Estimate; <sup>e</sup> 2012 data; n/a = no information available; PPP = purchasing power parity.

from 9% of GDP in 2009 to the target of 3% of GDP in 2012, as required under the EU Excessive Deficit Procedure (World Bank, 2016), as a result of strict expenditure containment with cuts in public sector wages and pensions and increase in revenues such as from the value added tax (VAT). These measures made the government unpopular and triggered some unrest at the beginning of 2012, leading to the government's resignation shortly afterwards. The current government is under pressure from the EU and the IMF to improve the absorption of EU funds to modernize the public infrastructure, tackle a long-delayed reform of the state-owned enterprise sector and address weaknesses in the financial sector (EIU, 2015). The absorption of EU funds has been slow since EU accession (the slowest among EU countries), due to the lack of experience and administrative and judicial capacity, and to fraudulent practices (EC, 2015b). At the end of 2014, Romania had spent about 59.3% of the financial envelope available for 2007–13.

There has been a small but steady increase in unemployment, with some fluctuation around the financial crisis (Table 1.2; Word Bank, 2016). However, the unemployment rate has remained much lower than during the 1990s and, in 2014, it was also lower than the EU average of 10.2% in that year (Eurostat, 2016); it is expected to fall in the coming years (EC, 2015b). According to 2013 data, unemployment is higher in urban areas (8.7%) compared to rural areas (5.2%). However, official figures may not entirely reflect the true level of employment. In 2013, an estimated 9.2 million people (46.2% of the total population) were economically active (National Institute of Statistics, 2015a).

The latest survey on the quality of life of Romanians by the National Institute of Statistics in 2012 revealed that 31.4% of households were composed of persons without employment (28.7% of households in urban areas, 35% of households in rural areas; National Institute of Statistics, 2014b). Also, over one third of households (36.5%) had registered defaults on their debt obligations (mortgages, loans, etc.) or had pending utility bills, while 87.7% declared having difficulties in paying for current expenses.

In 2010, with a Gini coefficient of 28.2, Romania ranked fifth among EU countries in terms of income equality (Precupetu & Precupetu, 2012); the EU average was 30.5. In the same year, Romania also ranked second in terms of relative poverty in the EU, with an at-risk-of-poverty rate of 21.1%, following Lithuania (21.3%), and compared to the EU average of 16.4% (Precupetu & Precupetu, 2012). In terms of the Human Development Index (HDI), with a score of 0.785, in 2013 Romania ranked 54th among 187 countries and was placed in the group of countries with a high HDI (UNDP, 2014).

### 1.3 Political context

The Constitution approved by referendum in December 1991 defines Romania as a social and democratic state governed by the rule of law and with a separation of legislative, executive and judicial powers. The form of the government is a republic. Romania's economy is a free market economy where private property rights are guaranteed by law (Viădescu et al., 2008b). The head of state is the president, who is elected by a direct vote for a maximum of two five-year terms. The last presidential election took place in December 2014. The parliament consists of a chamber of deputies with 343 members and a senate with 137 members. The members of both chambers elect their respective presidents. The President of the Republic, after consultations with the two presidents of

the parliament, designates the Prime Minister from the party that won the majority of seats in the parliament. The Prime Minister presents the cabinet to the parliament for approval. Romania is divided into 41 districts (*judet*) and 2686 communes. Bucharest municipality is a separate administrative entity because of its size. The *judet* is the basic administrative unit of the country. Towns and communes are smaller administrative units. In 2014, the smallest district had 208 242 residents, the largest had 780 948 and Bucharest had 1 865 143 (National Institute of Statistics, 2015a).

Since December 2012, the country has been governed by a centre-left government, at first under Victor Ponta, who resigned in November 2015 following corruption allegations. He was replaced by Dacian Ciolos, who at the time of writing was expected to run the country until parliamentary elections set for the end of 2016.

Political corruption is regarded as one of the major obstacles to the economic development of the country. According to Transparency International's 2013 Global Corruption Barometer, 76% of Romanian responders considered political parties to be corrupt or extremely corrupt (Transparency International, 2015).

Romania is a member of the United Nations, the Council of Europe, the World Trade Organization, the North Atlantic Treaty Organization (NATO) and, since 1 January 2007, the EU. Furthermore, the Government of Romania has ratified a range of international and regional human rights treaties, recognizing the right to health and other health-related rights (Vlădescu et al., 2008b).

## 1.4 Health status

Life expectancy at birth has increased steadily over recent decades, by some five years since 1995, to 75.1 years in 2014 (Table 1.3), while remaining lower compared to other EU countries, which have an average of 80.9 years (Eurostat, 2016). Women live on average longer (78.7 years) than men (71.6 years). At 7.1 years in 2014, the gender gap for life expectancy at birth in Romania is higher than the EU average (5.5 years) (Eurostat, 2016).

The main causes of death in 2012 were circulatory disease (41%), followed by malignant tumours (15%), ischaemic heart diseases (14%), cerebrovascular diseases (13%) and digestive diseases (5%) (Table 1.4). Both women and men had the highest number of deaths from circulatory diseases (431 per 100 000 for women and 604 per 100 000 for men). The second and third most

**Table 1.3**

Mortality and health indicators, 1980–2014 (selected years)

	1980	1990	1995	2000	2005	2010	2014
Life expectancy at birth, total (years)	69.1	69.7	69.5	71.2	71.9 <sup>b</sup>	73.5	75.1
Life expectancy at birth, female (years)	71.8	73.1	73.4	74.8	75.6 <sup>b</sup>	77.3	78.7 <sup>b</sup>
Life expectancy at birth, male (years)	66.5	66.6	65.7	67.7	68.4 <sup>b</sup>	69.8	71.6 <sup>b</sup>
Mortality rate, adult, female (per 1 000 female adults)	134.6	140.5	148.3	147.2	139.3	131.3	128.2
Mortality rate, adult, male (per 1 000 male adults)	181.1	233.9	269.2	266.4	247.2	222.0	212.5
HLYs at birth, women <sup>a</sup>	n/a	n/a	n/a	n/a	n/a	57.5*	59.0
HLYs at birth, men <sup>a</sup>	n/a	n/a	n/a	n/a	n/a	57.3*	59.0

Source: World Bank, 2016.

Notes: <sup>a</sup> Eurostat, 2016; <sup>b</sup> Estimated; \*Break in time series; HLY = healthy life year; n/a = no information available.

common causes of death for women were, respectively, cerebrovascular diseases (137.3 per 100 000) and ischaemic heart diseases (136.78 per 100 000). Malignant neoplasms (which were the fourth most common cause of death for women) were the second most common cause for men (252 per 100 000), while ischaemic heart diseases were the third most common cause for men (219 per 100 000) (WHO Regional Office for Europe, 2016).

Following a temporary increase in cardiovascular mortality after political transition in the early 1990s (Dolea, Nolte & McKee, 2002), rates have steadily come down since 1998 among both men and women (Table 1.4), although mortality levels have remained among the highest in the EU (WHO Regional Office for Europe, 2016). This can be attributed, in part, to health risk behaviours in the population, such as smoking and unhealthy diet (Ministry of Health, 2014). Conversely, there has been a steady increase in lung cancer mortality, in particular among women (although at low levels compared to the EU average) and older men aged 65 and over, reflecting increasing uptake of smoking in the past (Tereanu et al., 2013). While declining in recent years, in particular among those under 65, Romania has long had among the highest levels of female cervical cancer mortality across the EU. This has been attributed to a lack of systematic screening, or poor coverage and quality of screening practice (Arbyn et al., 2011). Breast cancer mortality has traditionally been lower than in other EU countries and, while mortality has been declining among younger women since the late 1990s, it continues to rise among women aged 65 and over, which has been explained, in part, with opportunistic mammography screening not reaching the target population (Tereanu et al., 2013).

**Table 1.4**

Main causes of death per 100 000, 1980–2014 (selected years)

	1980	1990	1995	2000	2005	2010	2012	2013	2014
<i>Communicable diseases</i>									
All infectious and parasitic diseases (A00–B99)	10.8	12.5	15.2	14.5	11.6	10.3	9.7	10.6 <sup>c</sup>	12.0 <sup>c</sup>
Tuberculosis (A15–A19)	4.1	7.4	11.8	9.5	7.9	6.3	5.1	5.1 <sup>c</sup>	5.0 <sup>c</sup>
Sexually transmitted infections (A50–A64) <sup>a</sup>	0.1	0.0	0.0	0.1	0.0	0.0	0.0	n/a	n/a
HIV/AIDS (B20–B24) <sup>b</sup>	n/a	n/a	n/a	n/a	n/a	n/a	0.8	0.8	n/a
<i>Noncommunicable diseases</i>									
Circulatory diseases (I00–I99)	768.9	705.7	747.7	667.6	645.4	539.7	507.8	659.3 <sup>c</sup>	667.6 <sup>c</sup>
Malignant neoplasms (C00–C97)	149.4	147.8	162.5	170.8	179.5	180.1	182.2	222.3 <sup>c</sup>	226.6 <sup>c</sup>
Colon cancer (C18)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15.7 <sup>c</sup>
Cancer of trachea, bronchus and lung (C32–C34)	25.8	29.4	34.3	35.6	37.2	37.8	38.3	44.6 <sup>c</sup>	45.6 <sup>c</sup>
Breast cancer (C50)	16.6	20.5	22.2	23.0	23.5	21.7	21.2	15.3 <sup>c</sup>	14.8 <sup>c</sup>
Cervical cancer (C53)	11.4	13.4	13.3	14.6	14.2	13.1	12.0	7.7 <sup>c</sup>	7.5 <sup>c</sup>
Diabetes (E10–E14)	5.7	9.6	7.9	7.4	8.0	8.6	7.9	9.9 <sup>c</sup>	10.0 <sup>c</sup>
Mental and behavioural disorders (F00–F99)	13.3	15.7	18.8	12.9	11.4	10.8	12.0	15.5 <sup>c</sup>	17.1 <sup>c</sup>
Ischaemic heart diseases (I20–I25)	152.3	202.2	248.4	230.5	217.8	187.1	173.5	136.4 <sup>c</sup>	139.7 <sup>c</sup>
Cerebrovascular diseases (I60–I69)	182.1	185.3	243.3	215.5	215.1	167.0	154.7	206.5 <sup>c</sup>	200.1 <sup>c</sup>
Chronic respiratory diseases (J00–J99)	71.7	27.2	13.3	27.2	24.5	20.5	19.6	56.7 <sup>c</sup>	60.0 <sup>c</sup>
Digestive diseases (K00–K93)	50.8	53.0	68.9	61.4	60.8	66.0	55.8	62.8 <sup>c</sup>	65.2 <sup>c</sup>
<i>External causes</i>									
Transport accidents (V01–V99)	n/a	27.8	21.1	15.8	15.4	12.3	10.9	n/a	9.8 <sup>c</sup>
Suicide (X60–X84)	n/a	9.3	12.5	12.4	11.4	11.9	10.7	n/a	9.9 <sup>c</sup>
Ill-defined and unknown causes of mortality (R95–R99)	0.7	0.4	4.6	1.4	3.0	8.6	8.3	n/a	n/a

Source: WHO Regional Office for Europe, 2016.

Notes: <sup>a</sup>WHO, 2016; <sup>b</sup>Eurostat, 2016; <sup>c</sup>NIPH, 2015b; Data highlighted in grey comes from a national database and may not be comparable with data from international databases (WHO and Eurostat); n/a = no information available.

Mortality related to transport injuries steadily declined from the mid-1990s onwards, although levels remained high at 11 deaths per 100 000 population in 2012 compared to an EU average of 6 per 100 000 (WHO Regional Office for Europe, 2016). Certified mortality from suicide has also seen a decline from the early 2000s onwards, to 11 deaths per 100 000 in 2012 (the EU average was 10.2).

Romania experienced a difficult period in relation to TB, with incidence rates rising from the late 1980s to the highest levels within the EU. Incidence rates have been declining from 2003 onwards, although to levels that remain higher than before the political transition (Table 1.5), to 70.2 new cases per 100 000 population in 2014 (NIPH, 2015d).

**Table 1.5**

Morbidity and factors affecting health status, 1980–2013 (selected years)

	1980	1990	1995	2000	2005	2010	2013
Tuberculosis incidence per 100 000	61.0	70.0	102.6	122.4	120.7	86.7	73.0
AIDS incidence per 100 000	0.0	7.0	3.7	2.6	1.6	1.2	1.6
HIV incidence per 100 000	n/a	n/a	0.8	1.2	1.1	1.3	2.4
Cancer incidence per 100 000	n/a	119.5	175.0	197.3	240.7	275.5	286.8
Cancer prevalence, in %	n/a	0.8	0.9	1.2	1.6	2.0	2.1
Female breast cancer incidence per 100 000	n/a	21.7	35.5	42.0	52.1	53.1	57.2
Cervix uteri cancer incidence per 100 000	n/a	15.5	21.5	25.0	29.0	29.0	28.2
Diabetes prevalence, in %	n/a	0.7	0.9	1.4	2.2	2.9	3.3
Mental disorders incidence per 100 000	n/a	n/a	683.4	925.1	1 178.2	1 349.2	1452.1
Mental disorders, prevalence in %	n/a	0.3	0.4	0.5	1.4	1.4	1.7
Incidence, ischaemic heart disease per 100 000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Incidence, cerebrovascular diseases per 100 000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Chronic obstructive pulmonary diseases prevalence, in %	n/a	0.5	0.6	0.7	1.1	1.5	1.7
% of regular daily smokers in the population, age 15+	n/a	n/a	n/a	20.8	n/a	n/a	26.7*
Pure alcohol consumption, litres per capita, age 15+	10.9	10.9	11.3	10.2	7.7	9.0	9.1*
% population with access to sewage system, septic tank or other hygienic means of sewage disposal	n/a	70.4	72.3	74.0	76.0	77.5	79.0
Average number of rooms per person <sup>a</sup>	n/a	n/a	n/a	n/a	n/a	0.9	1.0

Source: WHO Regional Office for Europe, 2016.

Notes: <sup>a</sup>Average number of rooms per person by tenure status and dwelling type, Eurostat, 2016; \*2011 data; n/a = no information available.

Romania also saw a steady rise in the number of diagnoses of HIV, albeit from a very low level, with a temporary decline in the early 2000s, but increasing again from the late 2000s, to 2.4 in 2013 (Table 1.5). There have been localized HIV outbreaks among people who inject drugs since 2011. The incidence of AIDS has seen a steady decline following a peak during the 1990s, to a low of 1.2 per 100 000 in 2010, but has been increasing since (ECDC, 2014). Out of all HIV/AIDS cases diagnosed in Romania between 1985 and 2014, almost half were children younger than 14 years of age at the time of the diagnosis (UNAIDS, 2015).

Table 1.5 provides an overview of selected indicators of morbidity and factors affecting health in Romania. It shows that available data are somewhat patchy and, indeed, reliable data on morbidity and risk factors were last collected in 1997 as part of a health survey conducted by the National Centre of Statistics and Informatics in Public Health. Data that are routinely available mainly draw on those collected from family medicine physicians, but as these cover only persons who seek care, estimates based on these data will differ from those derived from other sources. One example is diabetes prevalence, where data based on family medicine physicians' records give a figure of 3.3% (2013) (WHO Regional Office for Europe, 2016), while a 2014 population health survey that used the European Health Interview Survey (EHIS) methodology estimated diabetes prevalence to be 5% (National Institute of Statistics, 2015c) and data reported by the National Institute of Public Health (NIPH) gave a figure of 4.6% (NIPH, 2015c). Disease registries (for example, for diabetes or cancer) do exist but they tend to be established at a local or regional level, such as the Bucharest Diabetes Registry, and have only recently been introduced.

## 1.5 Major factors influencing health status

Similar to other European countries, the main risk factors affecting the health of Romanians are smoking, alcohol consumption, illicit drug consumption, unbalanced diet and low level of physical activity (Ministry of Health, 2014). In 2011, the overall prevalence of smoking among those aged 15 years and older was estimated to be 26.7% (4.85 million people) (WHO, 2012). More recent data from the National Institute of Statistics show that in 2014 smoking prevalence among those aged 15 years and older was 19.6%, with the highest rates among young men aged 25–34 years (42.9%) and those aged 45–54 years (42.1%) (National Institute of Statistics, 2015c). There were no marked differences in the overall prevalence between people living in rural and urban areas or between people with different educational levels. A number of measures have been implemented to reduce the prevalence of smoking in the population including: the ratification of the 2005 WHO Framework Convention on Tobacco Control and the application of its six MPOWER strategies (WHO, 2012); the enactment, in 2002, of the Law 349/2002 on the prevention and control of tobacco consumption (modified in 2004 and 2008), which introduced, among others, smoking restrictions in closed public places and warning labels on tobacco packaging; and the implementation of a tobacco use control programme and of several public health campaigns conducted by

non-governmental organizations (NGOs) to increase awareness of the effects of smoking on health. The prevalence of daily smoking decreased from 36% in 2003 to 26% in 2011 (WHO, 2012).

Data on alcohol and other substance use from the European School Survey Project on Alcohol and Other Drugs (ESPAD), a study on substance use among 15–16-year-old students in 36 European countries, for Romania shows a small decrease in the share of students who had consumed any alcoholic beverage in their lifetime (79% in 2011, compared to 81% in 2007 and to the EU average of 87% in 2011). The share of those with hazardous consumption levels increased slightly, from 8% in 2007 to 10% in 2011, while remaining below the European average of 14%. Among those aged 15 years and older, the prevalence of current alcohol use was 57.2% in 2014, with rates higher in men, at 72.6% for men compared to 42.8% for women (CAN, 2012). Among regular users, this difference was higher, at 33.1% among men and 5.5% among women. The frequently used type of alcohol was beer (around 5.2 litres per week) (National Institute of Statistics, 2015c).

While lower than the EU average (18%), the prevalence of illicit drug use throughout life among the Romanian population doubled in 2011 compared to 2007 (10% vs. 5%). The most consumed drugs among 16-year-olds in Romania in 2011 were ethnobotanical psychoactive substances, followed by cannabis/hashish and inhalants. All have a high availability on the market (CAN, 2012).

Despite recent efforts aimed at modifying diet through healthy eating campaigns, the average diet is still considered to be relatively unhealthy. Characterized by high consumption of animal fats and high-caloric food with high sugar and salt content, poor diet is considered to be among the key factors driving the high rates of cardiovascular disease in Romania (Ministry of Health, 2014). In 2008, the proportion of people aged 15 and over that regularly consumed fruits and vegetables at least once a day was lower in Romania, at respectively 45.6% and 54.1%, compared to over 50% and over 60% in the majority of other EU countries (EC, 2015a). National data from 2014 show that the share of people aged 15 years or over eating fruits at least once a day is only 28.7% and of those eating vegetables at least once a day is 29.5% (National Institute of Statistics, 2015c).

Living conditions may also have an impact on the health status of the Romanian population, but we are not aware of any studies on this. While the average number of rooms per person in occupied housing units is one (see Table 1.5), it is much lower in the urban areas, where over half of houses (55.5%) are overcrowded. In terms of the quality of housing, 34.8% of houses have



bathroom and/or toilets outside (9.2% of houses in urban areas vs. 68.7% in rural areas); 65.1% are in a deteriorated state (i.e. damaged because of old age and poor maintenance or natural disasters); and 47.6% reported dampness (National Institute of Statistics, 2014b).

### Maternal, child and adolescent health

Infant mortality declined from 26.9 deaths per 1000 live births in 1990 to 8.8 in 2014 (Table 1.6), while remaining highest among EU Member States (3.8 in EU in 2012, which is the latest year for which comparative data are available; WHO Regional Office for Europe, 2016). The majority of infant deaths are related to perinatal conditions (35%), disease (22%) and malformation (19%). Mortality in under-fives has also steadily declined, from 34.3 deaths per 1000 live births in 1990 to 10.5 deaths per 1000 live births in 2012.

**Table 1.6**

Maternal, child and adolescent health indicators, 1980–2014 (selected years)

	1980	1990	1995	2000	2005	2010	2013	2014
Adolescent fertility rate (births per 1 000 women aged 15–19) <sup>a</sup>	68.2	52.7	43.8	38.6	38.3	38.0	36.2	35.1
% of all live births to mothers, aged under 20 years	12.7	15.2	17.2	13.7	13.1	10.6	10.0	n/a
Abortions per 1 000 live births	1 036	3 153	2 125	1 100	739	480	437	423 <sup>c</sup>
Perinatal deaths per 1 000 births	15.0	12.2	12.4	12.0	11.6	7.0	6.5	7.7 <sup>b</sup>
Neonatal deaths per 1 000 live births	11.1	8.6	9.2	9.1	8.4	5.4	4.9 <sup>b</sup>	5.2 <sup>b</sup>
Post-neonatal deaths per 1 000 live births	18.1	18.2	11.9	9.4	6.5	4.3	3.5 <sup>b</sup>	3.6 <sup>b</sup>
Infant deaths per 1 000 live births	29.3	26.9	21.2	18.6	14.9	9.7	8.5 <sup>b</sup>	8.8 <sup>b</sup>
Probability of dying before age 5 years per 1 000 live births	35.6	34.3	25.8	22.2	17.6	11.7	10.5*	n/a
Maternal deaths per 100 000 live births	132.6	83.5	47.7	40.5	22.6	24.0	13.6	13.0 <sup>c</sup>
Syphilis incidence per 100 000	10.1	23.1	35.0	45.1	31.7	10.8	0**	n/a
Gonococcal infection incidence per 100 000	91.1	33.4	24.7	21.8	7.7	2.4	2.4**	n/a

Source: WHO Regional Office for Europe, 2016.

Notes: <sup>a</sup>World Bank, 2016; <sup>b</sup>NIPH, 2015f; <sup>c</sup>NIPH, 2015a; \*2012 data, \*\*2011 data; Data highlighted in grey comes from national databases and may not be comparable with international data included in this table; n/a = no information available.

The incidences of HIV and AIDS in children in 2014 were, respectively, 0.35 per 100 000 and 0.22 per 100 000. Both have been increasing steadily since 2004 after a substantial decrease compared to the late 1990s, when the incidence rates were over 5 per 100 000 for HIV and over 15 per 100 000 for AIDS. The rate of mother-to-child transmission of HIV infection has been increasing: there were only 3 such cases in 1999, compared to 18 in 2014 (Institute of Infectious Diseases “Matei Bals”, 2014).

Following political transition in the early 1990s, Romania recorded a steep decline in maternal mortality, linked to the liberation of legislation on the termination of pregnancy after the fall of the communist regime, from a high of 169.4 deaths per 100 000 live births in 1989 (WHO Regional Office for Europe, 2016) to 13.0 in 2014 (Table 1.6). Although the abortion rate has since decreased (423 per 1000 live births in 2014), it is still very high and is almost twice that of the EU average of 203. This indicates that family planning and health education programmes, introduced since the mid-1990s, have not yet achieved the expected results and that abortions have continued to be used instead of contraception.

Data on the health status of children and adolescents are registered through annual school check-ups. The latest available data were collected for the school year 2013–2014 and revealed an overall morbidity rate of 24.96%, higher in urban areas (27.3%) compared to rural areas (13.5%). This rate has been stable in the last 10 years, varying between 26% in 2002 and 24.96% in 2014. For almost all diseases, the prevalence was higher in urban areas compared to rural areas. It has been noted that school children with chronic diseases are not adequately followed up because there is no clear division of responsibilities between family medicine physicians and school physicians, and because of a low number of school physicians (available only in urban areas) (NIPH, 2015g).

Immunization rates have seen a decreasing trend. Vaccination rates against diphtheria-tetanus-pertussis and poliomyelitis decreased from 99% in 2000 to 89% in 2013 (88% for poliomyelitis; WHO Regional Office for Europe, 2016). The causes behind this trend include: no reported cases of certain vaccine-preventable diseases (e.g. diphtheria, poliomyelitis); influence of the anti-vaccine movement; delays in vaccines procurement; and increase in the number of seasonal cross-border migrants – children of these migrants may not follow the same vaccination schedule as Romanian children because they come from countries that may have different epidemiological profiles and/or different vaccination schedules (Ministry of Health, 2014) (see section 5.1).

There are also differences with regards to the prophylactic services provided among rural/urban populations and in certain communities, i.e. Roma (see section 5.14). For example, the rate of prophylaxis for vitamin D deficiency in children up to 24 months is 92% in Romania (but lower in rural areas at 89%) while the prophylaxis for vitamin D deficiency in Roma children up to 12 months is under 50% (Ministry of Health, 2014).

## 2. Organization and governance

The Romanian health system is organized at two main levels, national and district, mirroring the administrative division of the country, with the national level responsible for setting general objectives and the district level responsible for ensuring service provision according to the rules set at the central level. The system remains highly centralized, with the Ministry of Health being the central administrative authority in the health sector responsible for the stewardship of the system and for its regulatory framework. The Ministry of Health also exerts indirect control over some functions that have been recently decentralized to other institutions and that are only just beginning to assert regulatory functions, such as the National Authority for Quality Management in Health Care. District public health authorities (DPHAs) represent the Ministry of Health at the local level. The other key actor at the central level is the National Health Insurance House (NHIH), which administrates and regulates the social health insurance system. This organizational structure has been in place since 1999, having replaced the Semashko model. The NHIH is also represented at district level by district health insurance houses (DHIHs).

A 'Framework Contract' lays down the definition of the statutory benefits package and contains information on the terms under which patients can obtain services, provider payment mechanisms, the relationship between providers and the DHIHs, terms of contracts (for example, quality criteria for providers), providers' rights and obligations, and transposition of EU regulations with relevance to health care provision. It is adopted every two years and forms the basis for individual contracts between the DHIHs and health service providers.

For pharmaceuticals, a positive list is elaborated with input from the health technology assessment (HTA) department at the Ministry of Health established in 2012. So far, all HTA efforts have been concentrated on

pharmaceutical products, but there are plans to develop HTA methodologies for other technologies, such as diagnostic procedures, surgical interventions and screening. Recent regulatory changes have been in the area of pharmaceuticals and included the introduction of a claw-back system requiring the repayment of a percentage of profits from manufacturers and distributors (2011), as well as electronic prescribing (2012).

Quality of care is one of the weaker points of health care regulation. It is not regulated by any specific act and is one area for which secondary legislation is only just being developed. Monitoring of quality mainly focuses on financial aspects and the volume of services, and some quality criteria are only checked ‘on paper’ when contracts are signed.

Although extensive data on the functioning of the health system and on population health status are collected, the information systems currently suffer from a high degree of data fragmentation and duplication, and the use of existing data in planning and decision-making is poor. This may improve when the two main information systems are integrated, although how and when this may happen is unclear.

## 2.1 Overview of the health system

The Romanian health system is organized at two main levels: the national level responsible for the implementation of government health policy; and the district (*judet*) level responsible for ensuring service provision according to the rules set centrally. The main actors at the national level are: the Ministry of Health, the NHIH and the professional organizations. The government represents the highest authority within the health system, performing its stewardship role through the Ministry of Health. The NHIH administrates and regulates the social health insurance system, which has been in place since 1999, having replaced the Semashko model. A number of ministries, other than the Ministry of Health, play a role in the health system either by overseeing the system’s financing, operating their own parallel health systems or through intersectoral cooperation. The 43 district branches of the NHIH (DHIHs) contract services from public and private providers according to the rules established in the Framework Contract agreed by the NHIH and the Ministry of Health and approved by the government (see section 3.3.4).

The social health insurance system is part of the wider social security system, which, apart from the National Health Insurance Fund (NHIF), also includes three other main pillars under the Ministry of Labour, Family, Social Protection and Elderly: the Pension Fund, the Unemployment Fund and the Work Injuries Fund (see section 3.3.2).

The key legal act governing the Romanian health system is the Law 95/2006 on Health Care Reform (hereinafter Law 95/2006). This comprehensive framework act brought together almost all existing main health care legislation and adapted it to the *acquis communautaire*. It consists of 19 titles that cover almost all aspects of the health sector, including its financing, organization and governance; the provision of services encompassing public health, primary care, emergency care, specialized outpatient care, hospital care and pharmaceutical care; health care professionals' practice; as well as the coordination of the Romanian social health insurance system with the social health insurance systems of other EU Member States. The Law has been subject to over 1300 amendments since it came into force in 2006.

## 2.2 Historical background

The first law to regulate the organization of the health system in Romania came into force in 1874. At that time, Romania consisted of two principalities, Moldova and Wallachia, while Transylvania was part of the Austro-Hungarian Empire. According to this law, health services were provided by the state, and the Health Directorate within the Ministry of Internal Affairs was the central authority in the health sector (Șuta et al., 2009). In parallel with the development of the government-financed health system, small-scale insurance systems covering sickness and work accidents emerged. Following the union of Transylvania with Romania in 1918, all legislation across the country was harmonized, including the legislation on sickness insurance, which was extended to other population groups besides workers. Between the two World Wars, there was a social insurance system based on the Bismarckian model (Vlădescu et al., 2008a). During 1948–1949, all private health institutions were nationalized (Bărbulescu et al., 2009), with a gradual transition to the Soviet-type Semashko model (for more information on this model, see Vlădescu et al., 2008b). In 1990, the Romanian government embarked on a fundamental, albeit slow-paced, health care reform, shifting the health system towards a more decentralized and pluralistic social health insurance system, with

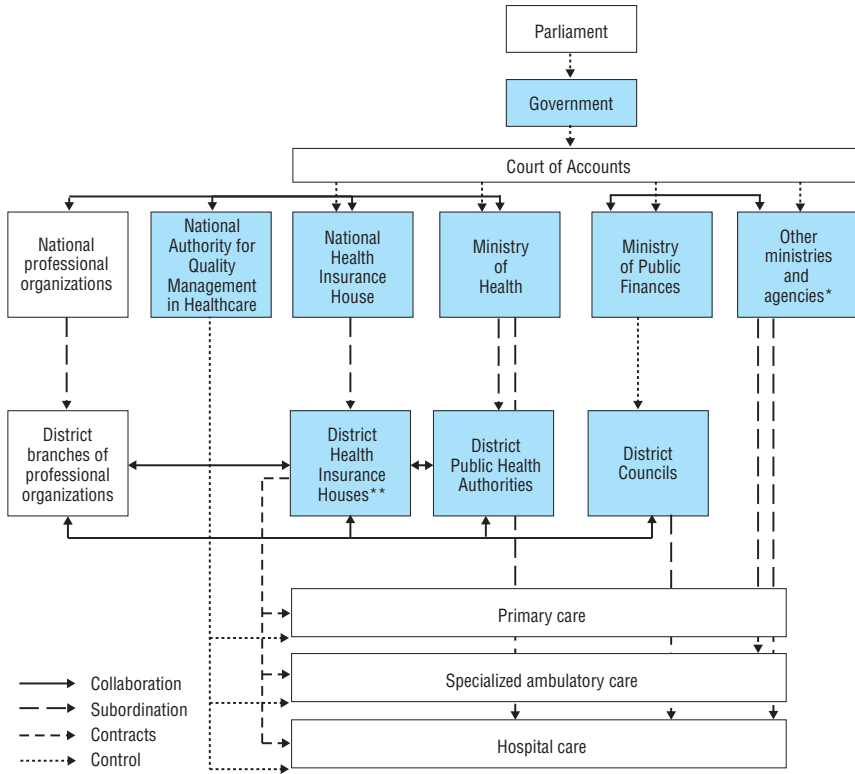
contractual relationships between health insurance houses as purchasers and health care providers. The main legislative acts were introduced between 1995 and 2002. In 2006, these were replaced by the aforementioned Law 95/2006, which is still in place today (for more information on the historical background, see Vlădescu et al., 2008b). As noted above, the Law 95/2006 harmonized the national legislation with the *acquis communautaire*. On 1 January 2007, Romania joined the EU.

In 2012, a new health law was proposed, following numerous studies that had shown poor performance of the health system, plus mounting pressure from the general public and health professionals (NICE, 2012; World Bank, 2011b). The proposal envisaged replacing the system of controlled resource allocation with regulated competition at both the health insurer and service provider levels (after the Dutch model), introducing the ‘money follows the insured’ principle, and modifying the structure and functioning of service providers to enable service integration, improved continuity and quality, while also ensuring cost efficiency. The proposal was rejected amidst protests and calls for the resignation of the president (see sections 1.2, 1.3 and 6.1.1, and Vlădescu & Astărăstoae, 2012a). The most recent reforms focused mainly on introducing cost-saving measures (see section 6.1.2).

## 2.3 Organization

The Romanian health system is organized at two levels: national and district (*judet*) (see section 1.3). The national level is responsible for setting and achieving general objectives and ensuring the fundamental principles of the government health policy. The district level is responsible for ensuring service provision according to the rules set by the central level (Fig. 2.1).

**Fig. 2.1**  
 Organization of the health system in Romania, 2015



Source: Authors' own compilation, based on Vlădescu et al., 2008b.  
 Notes: \*Ministry of Transport, Ministry of National Defence, Ministry of Internal Affairs, Ministry of Justice and the Romanian Intelligence Agency; \*\*Including CASAOPSNAJ, i.e. the Health Insurance House covering employees of the Ministry of National Defence, Ministry of Internal Affairs, Ministry of Justice, and the agencies related to national security; the Health Insurance House of the Ministry of Transport was abolished in 2013 but the Ministry of Transport continues to operate its own health care facilities.

**The national level**

The main institutions at the national level are: the Ministry of Health, the NHIH and the professional organizations. The parliament has a key position in the policy process, representing the legislative power and controlling the activities of the government. The Ministry of Public Finances oversees the financial resources raised for and spent on health care and plays a key role in decisions on health sector reforms when they involve changes in public finances. The Court of Accounts controls the formation, administration and utilization of state financial resources in the public sector. The Ministry of Transport, Ministry of National Defence, Ministry of Internal Affairs, and the Ministry of Justice also play a role in the health system by operating their own parallel health systems as well as through intersectoral cooperation (see section 2.6).

## **Ministry of Health**

The Ministry of Health is the central administrative authority in the health sector. Its main responsibilities have not changed much in recent years<sup>1</sup> (Vlădescu et al., 2008b). It is responsible for the stewardship of the system and for its regulatory framework, including regulation of the pharmaceutical sector as well as public health policies and services, sanitary inspection and the Framework Contract, which regulates the purchasing of health services (see sections 2.8.1 and 3.3.4). It is also in charge of monitoring and evaluation of population health, provision of public health education and health promotion, human resources policy and certain infrastructure investments. Since 2010, local authorities have taken over some functions and competencies in health from the Ministry of Health (see below), with other tasks being shifted to institutions at the central level, such as the National Agency for Medicines and Medical Devices (2010; see section 2.8.4) and the National Authority for Quality Management in Health Care (2015; see below). However, some tasks, such as the HTA functions assigned to the National Agency for Medicines and Medical Devices, have not yet been fully implemented due to a lack of resources and expertise, as well as the unclear delineation of functions.

## **National Health Insurance House**

The NHIH is an autonomous public institution that administrates and regulates the social health insurance system. Established in 1999, it decides on resource allocation from the NHIF to the DHIHs (see section 3.3.3); sets out annual objectives for its own activities and for the activities of the DHIHs; supervises and coordinates the activity of the DHIHs (it has the power to issue implementing regulations mandatory to all DHIHs); and decides on the resource allocation between different types of care (see section 3.3.3). It also elaborates the Framework Contract, which together with the accompanying norms, defines the benefits package to which the insured are entitled as well as the provider payment mechanisms (see sections 3.3.1 and 3.7).

## **National Authority for Quality Management in Health Care**

The National Authority for Quality Management in Health Care was created in 2015. Its tasks are set out in Governmental Decision no. 629/2015 and include: elaborating, in collaboration with the Ministry of Health, the National Strategy for Quality Assurance in Health; drafting legislative proposals to ensure harmonization with international regulations; elaborating accreditation standards, methods and procedures for health care providers; accrediting training and technical consultancy providers in the field of health quality

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<sup>1</sup> Between 2006 and 2009, the Ministry of Health was called the Ministry of Public Health. The change of name in 2009 was not associated with any significant changes in the Ministry's remit.



management; evaluating, re-evaluating and accrediting health providers; monitoring that appropriate quality standards are in place in health care facilities at all levels of care (see section 2.8.2); and performing research activities in the area of health services quality. The National Commission for Hospital Accreditation (established in 2008) became part of the National Authority for Quality Management in Health Care when the latter was established in 2015. The Authority is under direct supervision of the Prime Minister who appoints its president.

### **Professional organizations**

There are five main professional organizations: the College of Physicians, College of Dentists, College of Pharmacists, the Order of Nurses and Midwives, and the Order of Biochemists, Biologists and Chemists. These are responsible for: regulating their respective professions; controlling and monitoring of health care professionals' practice; and for training and accreditation. They have structures at the national and district levels. Membership in these organizations is mandatory for all health professionals who practise in Romania (see section 2.8.3).

### **The district level**

The representatives of the central health care authorities at the district level are: the DPHAs, DHIHs, district councils and district branches of the professional associations.

### **District public health authorities**

There are 42 DPHAs, with one in each of the 41 districts plus one in the municipality of Bucharest. These are mainly responsible for carrying out the functions of the Ministry of Health related to population health at the local level, including: monitoring the health status of the population; developing, implementing and evaluating public health programmes; organizing health promotion and health prevention activities; as well as controlling and evaluating health care provision and the functioning and organization of health care providers.

### **District health insurance houses**

There are 43 DHIHs, including the Bucharest Health Insurance House and one insurance house for the employees of the Ministries of National Defence, Internal Affairs and Justice and the agencies related to national security (CASAOPSN AJ). There is free choice of DHIH: employees of the ministries of National Defence, Internal Affairs and Justice, and the agencies related to national security and persons not employed by these agencies can be registered with CASAOPSN AJ or with any other DHIH. The DHIHs are mainly

responsible for concluding contracts with health service providers at the local level and monitoring these contracts and certain quality aspects of service provision (see section 2.8.2).

### **District councils**

The district councils are the elected bodies of the local government. Although they have owned (almost) all public health care facilities such as hospitals since 2002, they played only a small role in the health system, because of lack of both financial and human resources. Since 2010, the local authorities (local government and district councils) have taken on some responsibilities in the health area from the Ministry of Health, including the management and administration of the majority of public hospitals. Since then, local government and district councils have also taken on more regulatory functions in areas that have an impact on health. For example, they set regulations in the area of sanitation and waste management.

### **Policy formulation, implementation and evaluation**

Health policies follow the political agenda of the government in power. They may also include objectives promoted by the EU or international donors and commitments to the funding agencies, such as the IMF (see section 6.1). Other actors, such as the professional organizations, trade unions, employer and provider organizations, patient groups and NGOs, usually have little influence on policy development, although they can influence the final decision in certain topics, such as the reimbursement of a particular drug. Implementation of policies is often delayed or not fully achieved (e.g. the National Public Health Strategy 2004–2014) either because of the lack of secondary legislation or because of political instability. Assessment and evaluation of policies are rarely performed.

## **2.4 Decentralization and centralization**

The Romanian health system remains highly centralized, with administrative regulation and financial control concentrated at the national level, mainly the Ministry of Health and the NHIH and, in the area of health care financing, the Ministry of Public Finances. Some of the functions are decentralized to other institutions (see section 2.3), but the Ministry of Health often exerts indirect control by appointing the management or approving the decisions. For example, the Minister of Health, in agreement with the centrally appointed prefect of the district<sup>2</sup>, appoints the directors of the DPHAs; the Minister of Health also

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<sup>2</sup> Prefects are representatives of the central government in their district. They ensure the legality of all decisions made by the local authorities and coordinate the activities of the functionally deconcentrated public services.

proposes three of the seven members of the NHIH's administrative council to be appointed by the Prime Minister. Some of the decentralized functions are only decentralized 'on paper' (see section 2.3).

## 2.5 Planning

Approaches to planning in the Romanian health system have not changed much since 1980. The planning functions are highly centralized, reflecting the overall centralization of the health system (see section 2.4). The main institutions involved in planning at the central level are the Ministry of Health, the NHIH and the Ministry of Public Finances. The DPHAs and DHIHs are involved in planning at the local level, usually by way of submitting proposals; for example, for the acquisition of expensive equipment or building of new hospital facilities, following calls for proposals from the central level (this also applies to human resources planning; see section 2.8.3). The link between planning decisions at the central level and population health needs is weak. The existing information systems do not allow for identification of health priorities and rapid evaluation of needs, or for providing feedback to decision-makers (see section 2.7.1), which may lead to inefficient and discretionary spending (for an example of such inefficiencies, see Vlădescu et al., 2008a). Also, the link between the local-level institutions and the communities they serve, plus the organizational accountability for the way in which they respond to local health needs, is very weak.

The key medium-term planning tool in the health sector is the National Health Strategy (see section 5.1). The first such strategy was developed in 2004. The 2004 Strategy remained a mere programming document. Its implementation was neither monitored nor assessed. The current Strategy came into force in December 2014 and covers the period 2014–2020 (Ministry of Health, 2014). The Strategy covers three areas: public health, health services and system-wide measures. The general objectives in the field of public health are: improving the health and nutrition of mother and child; reducing mortality and morbidity of communicable diseases; and slowing down the increase of morbidity and mortality from non-communicable diseases. The main objective in the area of health services is to ensure equitable access to quality and cost-effective health services. System-wide measures comprise: strengthening planning capacity at all levels (national, regional, local), including the establishment of a planning unit within the Ministry of Health, and in various areas of the health system (cancer control, hospital services, human resources, etc.); increasing efficiency in the health system through e-health; and reducing inequities in access by developing

the health care infrastructure. The Strategy also mentions specific national plans targeted at distinct diseases or services (strategic priorities): prevention, cancer control, diabetes control, cardiovascular disease control and rare diseases – but these plans have not been elaborated or implemented up to now.

The implementation of this strategy is one of the conditions for accessing the new EU funding. Efforts are currently under way to make the Strategy operational and to develop a comprehensive and detailed monitoring framework in order to facilitate the implementation. These goals are to be achieved by the end of 2016.

The government's election programme, which is approved by parliament when the new Cabinet is appointed (see section 7.1), is consistent with the National Health Strategy. After being approved, the programme is developed into specific programmes and policies in the Budget Law, which is passed every year. The specific programmes and policies are also debated and voted on in parliament. As with all other regulations, these are subject to public debates and must meet certain transparency criteria.

### **Health sector preparedness**

Between 1994 and 2004, responsibility for multisectoral health system preparedness was the responsibility of the governmental Commission for Disasters, under the leadership of the Prime Minister, and its subordinated commissions, reporting to different ministries, such as the Commission for Emergencies in Epidemics and Disasters under the Ministry of Health, or the Commission for Floods under the Ministry of Environment. In 2004, the National System for the Management of Emergencies was created, composed of the National Committee for Emergencies and various committees at the ministerial and local levels. However, there was no coordination among these committees and no operative administrative structure and, in 2014, it was replaced by the interministerial Commission for Emergencies and Emergency Preparedness, under the supervision of the Ministry of Internal Affairs and Administration. The Commission coordinates all relevant structures from other ministries, including the Ministry of Health (e.g. the Department of Public Health) and other institutions (e.g. the NIPH; see section 5.1).

## **2.6 Intersectorality**

Intersectorality has become an important issue since Romania joined the EU on 1 January 2007 and had to align its policies with those of the EU and to follow its methodological guidelines. Specific legislation that addresses environmental health determinants, such as air and water quality, waste management and

industrial pollution, was initiated or adopted by ministries other than the Ministry of Health, in the process of harmonization of national legislation with the *acquis communautaire* in the pre-accession period and during the transposition of EU directives after the accession.

An intersectoral approach to health is included in the key strategic documents: the National Development Plan 2014–2020, which indirectly addresses the most important health determinants including economic development, transport infrastructure, environment, social inclusion and living standards; and the National Sustainable Development Strategy 2013–2020–2030 (Government of Romania, 2008), which includes a range of activities seeking to reduce environmental hazards and to improve human health and well-being.

In practice, at the national level, the main mechanisms for addressing and integrating health across national policies are: the legal obligation on the government to conduct an impact assessment, including health impact assessments (HIA), of proposed legislation and to publish drafts of proposed legislation for public consultation; the use of interministerial councils, commissions and expert working groups that work together on issues involving the remit of more than one ministry; and collaboration between the Ministry of Health and the NHIH and professional organizations. At the district level, cross-sector interventions are ensured through the collaboration of representatives of the Ministry of Health (i.e. the DPHAs) with the DHIHs, district councils, district branches of professional associations and district representatives of other ministries. An example of an intersectoral local intervention was the establishment, in 2013, of intersectoral teams to prevent and combat violence against children, domestic violence and labour exploitation in the Gorj district (Pandurul.ro, 2013).

There is no specific legislation concerning the methodology of HIA for policies proposed outside the health sector. However, in 2009, within the Technical Assistance Project titled “Support for public administration reform by improving public policy formulation process”, which was part of the Programme of Community Aid to the countries of Central and Eastern Europe (PHARE), the government elaborated the methodology for HIA of policies in one of the manuals that were developed to provide methodological support in policy development. HIA is presently carried out by a small team at the Centre for Environmental Health Risks at the NIPH. It is based mainly on qualitative analysis and has been used for a relatively small number of specific projects, such as assessments of new industrial sites. For policy development more broadly, HIA is mainly based on desktop research and is not used systematically (WHO, 2013).

Interministerial councils ensure communication and coordination among ministries and coherent implementation of intersectoral policies. There are 13 permanent interministerial councils (established by Government Decision 750/2005), including the Interministerial Council for Health, Consumer Protection and Social Affairs. The councils can form interministerial commissions and working groups, which may include representatives of other public institutions as members and may invite guest members, including from academia and civil society when specific expertise is needed. For example, the Interministerial Council for Health, Consumer Protection and Social Affairs, whose structures remained unchanged since 2005, brings together the High-level Working Group for Child Care and Protection, the National Commission for the Surveillance, Control and Prevention of HIV/AIDS, the Anti-Poverty and Social Inclusion Commission, etc. Besides the permanent structures, non-permanent interministerial commissions, working groups and expert working groups can be established on a needs basis for developing intersectoral strategies or legislative acts, implementation, monitoring or evaluation of approved strategies or regulations. For example, a working group was established in 2013 for the elaboration of a health tourism strategy.

## 2.7 Health information management

### 2.7.1 Information systems

The main and the oldest health information system is managed by the Ministry of Health through the National Centre of Statistics and Informatics in Public Health at the NIPH (see section 5.1). It collects a very large volume of data, mainly on the health services and utilization (such as the number of medical consultations, inpatient days, average length of stay or bed occupancy) and data on morbidity. Data are published annually in statistical reports and in specific bulletins (e.g. there is a bulletin on the causes of deaths), which are restricted to health care units and not publicly available. However, they may be made available upon request. There are major deficiencies in the database: data collected are incomplete and some key information is not compiled; for example, routine data on health determinants and disease risk factors are not collected and information on services and utilization does not reflect the activity of the entire system because information on the activity of private physicians is not always gathered. Data are aggregated at the district level and the aggregation reflects various levels of care and population groups. Access

to disaggregated or individual data is difficult at the national level; for instance, it is not possible to obtain data on the activity and costs of individual providers. Access to disaggregated data is also difficult at the district level as not all data are publicly available. There is also a lack of organized quality control and quality assurance mechanisms and other sources that collect data on the same indicator may give different results due to differences in methodology. Moreover, there is no feedback to health care providers supplying the data and, as a result, providers cannot easily compare themselves to other providers or make decisions based on these data.

The NHIH manages the Integrated Unique Informatics System (SIUI) (see section 4.1). It collects information on over 26 000 health service providers that have contracts with the DHIHs and on 21 million insured persons. Data include medical information on patients, such as on health care services received, economic information on providers and on the administration of the NHIF (e.g. the running costs of the DHIHs). Data are collected and analysed by the DHIHs and aggregated and administered at the central level. The aggregation reflects various levels of care and population groups. Data are published on the websites of the National School of Public Health Management and Professional Development (NSPH-MPD) and on the websites of the NHIH and DHIHs. On 1 May 2015, the Electronic National Health Insurance Card was introduced as part of this information system (see section 4.1.4) and it is expected that upon full implementation, the electronic health records will improve monitoring and control of the health services provided by the NHIH.

In addition, there are numerous smaller information databases. These are connected with the national health programmes (see section 5.1) or with different clinical activities and are independent of one another; for example, the NSPH-MPD collects patient-level clinical data from hospitals. This information is used by the NHIH for hospital reimbursement.

There is no coherent policy in the field of health information and, despite significant investments in modern information and communication technologies, there is a high degree of data fragmentation and duplication of data collection (Vlădescu et al., 2008a). Since different information systems use different software, formats, definitions and standards, communication between and within the systems is minimal and data collected are not comparable. In addition, frequent changes of software complicate data storage and processing. It has been noted that the reporting burden on the providers is considerable, as the same data has to be reported to various systems but in different formats.

There is not much analysis of the collected data and no dissemination policy. As a result, the use of information in planning and decision-making is poor. There are plans to integrate information systems run by the NHIH and the Ministry of Health, but public information on these plans is obscure.

### 2.7.2 Health technology assessment

There have been initiatives to introduce HTA in Romania since the early 1990s, but it was not until 2011, when the Directive 2011/24/EU on the application of patients' rights in cross-border health care had to be transposed into the Romanian Law, that HTA activities started to develop.

In April 2011, the NSPH-MPD was officially mandated by the Ministry of Health to become a partner in EUnetHTA, the European HTA network for knowledge sharing and promoting good practice in HTA methods and processes across Europe (<http://www.eunethta.net>). In April 2012, an HTA unit was set up within the Ministry of Health. For two years, the unit functioned with only two staff and relied heavily on external experts in its activities, which were mainly focused on developing a methodology for the rapid assessment of drugs, and on verifying proposals for the reimbursement of drugs by the NHIH submitted by pharmaceutical companies. The rapid assessment consisted of score point cards to evaluate each medicine in order for it to be introduced in the National Medicines Catalogue (a price list) and to be reimbursed by the NHIH. In April 2014, the HTA unit was moved from the Ministry of Health to the National Agency for Medicines and Medical Devices. The HTA system is still in the process of being developed. In August 2015, the Ministry of Health finalized the terms of reference for a project funded by the World Bank, to develop a network of HTA institutions and specialists in Romania to enhance HTA capacity. The project will run for at least two years.

So far, all HTA efforts have been concentrated on pharmaceutical products. No methodologies have been developed for other technologies, such as diagnostic procedures, surgical interventions, screening, etc. However, there are plans to develop these within the above-mentioned World Bank project. The HTA methodology for pharmaceuticals was approved by the Ministry of Health in 2013. Criteria for inclusion or exclusion from the list are based on: therapeutic benefit, reimbursement status (e.g. whether it is reimbursed in another EU Member State), treatment cycle, patient accessibility, treatment costs and relation with GDP per capita, among other criteria. The evaluation process takes into account evidence published by the French National Authority for



Health (HAS), the Institute for Quality and Efficiency in Health Care (IQWiG) in Germany, the National Institute of Health and Care Excellence (NICE) in England and the Scottish Medicines Consortium (SMC).

## 2.8 Regulation

Regulatory functions are concentrated in the Ministry of Health and, since 1999, also in the NHIH (see section 2.4). Standard setting is mainly the responsibility of the Ministry of Health and the NHIH. Some regulatory responsibilities are vested in the professional organizations (see section 2.8.2). Other institutions, such as the National Agency for Quality Management in Health Care (see section 2.3) are only just beginning to assume some regulatory functions. Approval from the Ministry of Public Finances is required when a new regulation has implications for public finances and other ministries may need to approve regulations that touch upon their areas of work (see section 2.6). The ultimate oversight is held by the parliament. However, major health care legislation has often been issued by the government through emergency ordinances, bypassing the parliament (see section 6.1). Monitoring and enforcement are shared with certain other national institutions, such as the National Institute for Public Health, and local organizations, such as the DHIHs and DPHAs.

### 2.8.1 Regulation and governance of third-party payers

The Framework Contract, introduced for the first time in 1999, is the main legislative tool that regulates the purchasing of health services. It is developed by the NHIH, in consultation with the representatives of service providers, patients and civil society. It is approved by the Ministry of Health and passed as a Government Decision. The Ministry of Public Finances influences the purchasing of medical goods and services by defining expenditure ceilings for the key cost categories, such as human resources, pharmaceuticals, etc.

The Framework Contract contains a definition of the statutory benefits package and information on the terms under which patients can obtain services, provider payment mechanisms, the relationship between providers and the DHIHs, terms of contracts (e.g. quality criteria for providers), providers' rights and obligations, and transposition of EU regulations with relevance to health care provision. Benefits are described in the Framework Contract for each area of care with a different level of detail, depending on the type of service. The benefits, especially those services that are paid by tariffs or procedures in the diagnosis-related group (DRG) system, are further detailed in a document titled

“The application norms of the Framework Contract”, which is a Common Order signed by the president of the NHIH and the Minister of Health. The Framework Contract and its norms are issued periodically (yearly until 2013, and every two years since then) and form the basis for concluding individual contracts between the DHIHs and health service providers (see section 3.3.4) and for reimbursement of cross-border health care services (see section 2.9.6).

The contracts must take into account the following criteria: the number of residents registered with the family medicine physicians, number of hospital beds, average length of stay (ALOS), number of consultations, etc. These criteria are linked to the health needs of the local populations, but also to the existing infrastructure and health personnel. The DHIHs monitor the fulfilment of the contracts. All DHIH activity is monitored and controlled by the NHIH according to a control and monitoring plan.

Romanian health care legislation (Law 95/2006) allows for private third-party payers in the market. The voluntary health insurance (VHI) market is regulated by the Ministry of Health and the Insurance Supervisory Commission (Olsavszky, 2016) but this market is virtually nonexistent (see section 3.5).

## 2.8.2 Regulation and governance of providers

### Organization

The key legal act regulating the organization and functioning of health care providers is the Law 95/2006 (see section 2.1). The Ministry of Health develops the secondary legislation on the technical norms required for issuing the authorizations for the establishment and functioning of health care providers, and, together with the NHIH, secondary legislation on service provision, including quality norms.

Primary health care physicians are independent practitioners. Physicians are accredited by the College of Physicians. Each professional association plays a role in setting regulations for their respective professions. Most of the secondary and tertiary health care facilities are publicly owned and are under state administration (see Chapter 5). Private providers are allowed to enter into contracts with the DHIHs. Individual providers who wish to be contracted must fulfil conditions on professional competence and technical equipment. An important condition for entering into contracts with the DHIHs for hospitals is having an accreditation from the National Commission for Hospitals Accreditation, which started its operations in 2009. Accreditation is granted for five years. This Commission was recently integrated into the National Authority for Quality Management in Health Care (see Fig. 2.1). In the

future, the accreditation process will be extended to other health care providers besides hospitals (at the time of writing, the Authority is still in the process of being established; see section 2.3).

### **Quality**

Except for care provided in hospitals, quality is not regulated by a specific act. Law 95/2006 (art. 238–239) includes some references to the quality of care for different types of services, and secondary legislation in this area is still being developed. It also stipulates that the Ministry of Health and the NHIH are responsible for establishing quality criteria for care provided to insured persons. All health care providers who have signed contracts with the DHIHs must adhere to these criteria. These criteria include, for example, the average time per consultation, share of referrals to specialist care in the total number of consultations (for primary care) and percentage of patients referred to other hospitals (for inpatient care), percentage of operations performed in surgical wards, the rate of nosocomial infections for hospitals and ISO-certification for laboratories.

Compliance is monitored at both the NHIH and DHIH levels. Monitoring mainly focuses on financial aspects and the volume of services rather than on quality. The units responsible for monitoring are not adequately staffed. Some criteria are only checked ‘on paper’ when contracts are signed. Audits are rare because of the lack of capacity.

The Ministry of Health has made several attempts to improve the quality of care and its monitoring, especially at the hospital level. These included Order 4017 on the establishment of quality control structures in hospitals (quality cores) in 2001 and Order 975 on the establishment of a quality management structure in hospitals, which also in 2012 included the obligation for hospitals to train staff in quality assurance. Neither has been sufficiently enforced however, mainly because the hospitals do not have the necessary resources for their implementation.

Romania is a member of the European Union Network for Patient Safety and Quality of Care (PaSQ), a project funded by the EC. The project aims to organize platforms for promoting patient safety and quality in health care in all EU countries, by exchanging information and experiences on best practices. In the future, it is envisaged that the newly established National Authority for Quality Management in Health Care (see section 2.3) will take over responsibility for the regulation and monitoring of quality of care.

Provisions regarding negligence by officials of a public service (such as health care provision), including medical negligence, are incorporated in the New Criminal Code of 2014. According to the regulations, negligence is

punishable with a fine or imprisonment from between three months to three years (see section 2.9.4). The Criminal Code applies to health care professionals in both public and private sectors.

### 2.8.3 Registration and planning of human resources

Health professionals are registered with the relevant professional organization (see section 2.3), to which they apply to be accredited or reaccredited. In order to be reaccredited, health professionals must comply with continuing medical education (CME) requirements (see section 4.2.3). Any citizen of an EU Member State, an EEA country or Switzerland, who has graduated from a medical university in their country of origin, is entitled to practise in Romania. Any citizen of a third country having permanent resident status in Romania and a diploma recognized by Romania or any EU Member State, or having documents issued by any EU Member State that prove professional experience of at least three years in the medical field, is also entitled to practise.

The Ministry of Health controls, both directly and indirectly, the number of health professionals in the system. Direct control is exerted by approving the number of posts and types of medical specialties within the publicly owned health care units. Indirect control is exerted by issuing regulations in cooperation with the professional associations in order to ensure better geographical distribution of human resources. For example, special commissions at the DHIHs determine the number of ambulatory care specialists (and thus the number of contracts) that are needed at the district level, based on the number of residents, workload and available funds.

The planning of human resources is mainly based on the number of workplaces within the public system, which is relatively constant. If a *numerous clausus* is in place at medical universities, on which each university may decide autonomously, it mainly reflects the teaching capacity and not the health care needs of the population. The number of residency places for doctors is determined by the Ministry of Health based on the historical number of doctors in each specialty. Every year, the DPHAs report their estimated needs for a five-year period (five years is the average duration of residency training) based on how many new trainees enter and exit each specialty. Decisions to increase the number of trainees are taken on an ad-hoc basis.

Recent changes in the regulation of human resources have mainly been driven by the harmonization of national legislation with the EU regulation on the mutual recognition of professional qualifications (EU Directive

2005/36/EC). They have mainly targeted training and retraining of health care professionals as well as upgrading of educational and training facilities. They were not intended to change the mix of skills in the health care sector.

## **2.8.4 Regulation and governance of pharmaceuticals**

### **Regulation of pharmaceutical products**

Pharmaceuticals are extensively regulated by the Law 95/2006. The Law provides a definition of pharmaceutical products for human use that are intended to be placed on the market in Romania, and includes provisions related to their marketing, manufacture and importation, labelling, wholesale distribution, advertising and pharmacovigilance. The National Agency for Medicines and Medical Devices (NAMMD), which was set up in 2010 through a merger of the National Medicines Agency with the Technical Office for Medical Devices, is responsible for market authorization and surveillance of the safety of medicinal products on the market. It is subordinated to the Ministry of Health.

No medicinal product may be placed on the market unless a marketing authorization has been issued by the NAMMD. Every year, the Agency issues an index of medicinal products authorized for marketing in Romania, specifying for each whether or not it is subject to prescribing. The Ministry of Health may temporarily authorize the distribution of an unauthorized medicinal product in situations of public health concern or other emergency situations. Medicinal products are divided into those that are subject to medical prescription and those that are not. The first category includes pharmaceuticals that: are likely to be dangerous if used without medical supervision; contain substances that can cause adverse reactions requiring further investigation; or are injectable.

### **Pharmacovigilance**

The NAMMD operates the pharmacovigilance system and the Ministry of Health, through the NAMMD, undertakes appropriate measures, such as issuing warnings and temporary withdrawals, to encourage doctors and other health care professionals to report suspected adverse reactions. The pharmacovigilance system is in line with Directive 2001/83/EC on the European Commission Community code relating to medicinal products for human use.

### **Patent protection**

Patent protection is governed by the Patent Protection Law of 1996 and its subsequent amendments, and any patent has to be registered by the Romanian State Office for Inventions and Trademarks (OSIM). A generic drug may not be marketed in Romania before the passage of 10 years since the authorization of the original drug. An application for market authorization does not need to

provide the NAMMD with the results of preclinical and clinical trials if it can prove that the medicine is a generic for a drug that has been authorized for at least eight years in Romania or in another EU Member State.

### **Advertising**

Advertising is prohibited for products that do not have a valid marketing authorization. It is also not permitted for prescription-only drugs or drugs that contain psychotropic or narcotic substances. Advertising of pharmaceuticals should encourage the rational use of drugs and must not be misleading.

### **Regulation of pharmacies and wholesalers**

Disbursement of drugs takes place through community pharmacies (pharmaceuticals can be pre-ordered on the phone, or via the internet in some pharmacies, but must be collected in the pharmacy within 24–48 hours). Prescribing has been done electronically since 2012 and paper prescribing can only be used under special conditions. A pharmacy can only be established by a legal person (company) and not a natural person, and it has to employ at least one pharmacist. Decisions on whether a new pharmacy can be established depend on the ratio of existing pharmacies and the number of residents. In urban areas, the total number of pharmacies cannot exceed one pharmacy per 4000 inhabitants; in district capital cities, the ratio cannot be higher than one per 3500; and in Bucharest one per 3000. There are debates about eliminating these limits based on free market arguments. The Ministry of Health is responsible for the registration and licensing of pharmacies. Inspection and control of pharmacies are performed by the Ministry of Health and the NAMMD.

Generic prescribing was officially introduced when indicative maximum budgets for prescribing doctors were introduced in 2005 and is now customarily used with electronic prescribing. It was temporarily abolished in 2007 for political reasons and then reintroduced in 2010. If a doctor prescribes by generic name (International Nonproprietary Name, INN), pharmacists must dispense the cheapest drug and must inform the patient of the available generic substitute.

In 2006, the system of indicative maximum budgets was replaced by yearly budget ceilings for pharmacies set by the NHIH (see Vlădescu et al., 2008b), but the latter was abandoned in 2008. The ceilings were highly unpopular among patients with chronic conditions as many pharmacies reached their ceilings before the end of the month and patients were then forced to look for pharmacies that had not reached their ceilings. When in the absence of any ceilings the cost of pharmaceuticals kept increasing, in 2009 the Ministry of Health introduced a type of claw-back system (implemented in 2011), mainly at the level of marketing authorization holders (MAHs) of the drugs on the reimbursement list

(i.e. manufacturers or distributors). Every quarter, each producer has to return to the state budget a percentage of the profits (the claw-back point) according to a formula that depends on the difference between the sales value in that quarter and the reference sales value set annually by the government. The claw-back system has been heavily criticized because it does not take into account the differences in sales between the manufacturers. Producers of generics are worst off under this system. In 2014, the Ministry of Health proposed to amend the claw-back system so that new drugs being approved for reimbursement would be subject to cost–volume and cost–volume–outcome agreements (IHS, 2014). Cost–volume outcomes were implemented in 2015.

Wholesale distribution and storage of medicinal products is allowed only for medicinal products that have a marketing authorization granted by the NAMMD or through the EU centralized procedure. Pharmacies are not allowed to conduct wholesale of drugs.

### **Counterfeit drugs**

The NAMMD provides information on counterfeit drugs in Romania on its website ([www.crimemedicine.ro](http://www.crimemedicine.ro)). The purpose of this site is to inform the public about counterfeit drugs (e.g. through warnings), their possible effects on health, legislation and how to report counterfeit drugs. The scale of this problem in Romania is not known.

### **Policies to improve the cost-effective use of pharmaceuticals**

Apart from generic prescribing, there are currently no specific measures in place aimed at improving the cost–effectiveness of prescribing. However, electronic prescribing, in place since 2012, may help improve monitoring of the use of pharmaceuticals and contribute to better prescribing practices. The effects of electronic prescribing are yet to be analysed. There is also no coherent policy aimed at influencing patients to improve the cost-effective use of pharmaceuticals.

### **Pricing of prescription pharmaceuticals**

After a new drug obtains market authorization from the NAMMD, the MAH applies to the Ministry of Health for a price. A price increase or decrease for an already registered drug can also be requested, although permissions for a price increase are seldom granted. Prices of over-the-counter (OTC) medicines are not regulated, but the MAH has to notify the Ministry of Health of the price within 30 days after putting the drug on the market. The distributor has to submit the manufacturer's price to the Ministry of Health. Based on this information, the price is usually compared with the prices of the same product in the following reference countries: the Czech Republic, Bulgaria,

Hungary, Poland, Slovakia, Austria, Belgium, Italy, Lithuania, Spain, Greece and Germany. The price in Romania can only be lower than or equal to the lowest price among the reference prices. No other comparison tools are used. If the drug is not registered in any of the reference countries, then the price in the country of origin is used as reference. The price of a new generic cannot exceed 65% of the reference price of the original drug. The formula to calculate the maximum retail (pharmacy) price takes into account the manufacturer's price (ex-factory price), wholesale price and VAT (9% in Romania). The mark-ups of the wholesaler and the pharmacist depend on the price of the package and discounts; importers may give discounts to wholesalers and wholesalers may give discounts to pharmacies. The total mark-up of the wholesalers and pharmacies varies from 10% for prices up to 300 lei (around €67) and 24% for prices below 25 lei (around €6). For drugs priced at over 300 lei, the mark-up becomes a flat rate of 30 lei (around €7) for the wholesaler and 35 lei (around €8) for the retailer. Once a year, prices can be adjusted for exchange rate fluctuations. Retail prices are published in a Drug Catalogue that is updated quarterly.

### **Public reimbursement of pharmaceuticals**

Drugs that are reimbursed by health insurance are included in the positive lists elaborated by the HTA department of the NAMMD (see section 2.7.2) in cooperation with a special commission at the Ministry of Health. As described above (section 2.7.2), inclusion (or exclusion) depends on a number of parameters, including: therapeutic benefit, reimbursement status (e.g. whether it is reimbursed in another EU Member State), treatment cycle (if several treatment rounds are needed as opposed to one), patient accessibility, treatment cost and in relation to GDP per capita (compared to treatment costs in other countries). Pharmaceutical companies have to apply for their products to be evaluated and included on the positive lists. Evaluation can also be initiated by the NAMMD when there are safety concerns about a particular drug, when the drug's prescription status has been changed or a new indication is in place, or if there are concerns about the drug's budgetary impact. Since 2015, the lists have to be updated every year.

There are five positive lists (Table 2.1). List A contains mainly generics, list B includes expensive generics and branded names. Lists A and B are for outpatients, with drugs listed as generic compounds in alphabetical order. A reference price system is applied to all drugs on the lists. The reference prices are based on the lowest-priced product within a cluster of medicines, based on the generic substance, the pharmaceutical form and strength. In addition, patients must pay 10% or 50% of the reference price (i.e. of the lowest-priced



product of the cluster). If a patient prefers a more expensive product, they will also have to pay the difference between the price of the lowest-priced product and the preferred drug (see section 3.3.1).

**Table 2.1**

The lists of drugs fully or partially covered by health insurance

List	Content	Co-payment
A	Drugs (mainly generics) that are seen as important and cost-effective	10%
B	Drugs that are seen as less essential or less cost-effective compared to drugs on list A	50%
C1	Specialty drugs, mainly for severe and chronic diseases*, disbursed through community pharmacies on the basis of a special medical prescription	
C2	Drugs prescribed within the national treatment programmes**, disbursed through hospital pharmacies	0%
C3	Certain drugs from lists A and B and some additional drugs; only available to children, students and pregnant women	

Source: Authors, based on existing legislation.

Notes: \*Such as, cardiac failure of class III–IV on the New York Health Association (NYHA) scale, cirrhosis, leukemia, epilepsy, Parkinson's disease, schizophrenia, dementia; \*\*The programmes cover HIV/AIDS, certain tumours, TB, multiple sclerosis, diabetes mellitus, renal insufficiency, osteoporosis, transplantation, etc.

## 2.8.5 Regulation of medical devices and aids

Since 2014, the NAMMD has had regulatory authority over the market of medical devices in Romania, taking over from the Ministry of Health. The Agency performs the evaluation (including audits) of manufacturers and other distributors of medical devices that are regulated by the European directives (93/42/EEC, 98/79/EC, 90/365/EEC). The purpose of the evaluations is to confirm that they meet all the necessary conditions, such as technical equipment, qualifications of staff, safety and quality certificates. All medical devices used in the health sector must have authorization certificates issued by the NAMMD. Certification can be requested by the users (purchasers), producers or distributors.

The procurement of medical devices is done at the level of health care facilities in both private and public sectors. Procurement by public sector health facilities must meet administrative regulations on public procurement. Quality of the procured devices is monitored periodically (every two to three years, depending on the device) in both sectors by the NAMMD. The Ministry of Health can procure medical devices centrally, as part of capital investment in the publicly owned health facilities (see section 2.8.6).

## 2.8.6 Regulation of capital investment

Financing of capital investments in health care facilities and equipment is mainly from the state budget, through the Ministry of Health, but can also come from local budgets (according to investment plans pre-approved by the Ministry of Health) and external funds (World Bank, EU structural funds). Medical units can also cover capital investments from their own revenues and donations. Until 2014, funds received by hospitals from the NHIH for the contracted services could not be used for capital investments. A change of legislation (of Law 95/2006) in February 2014 allowed hospitals to pay for investments in infrastructure and medical equipment from the income received from the contracts, but only after all operating expenditure (e.g. salaries, drugs) has been covered.

The Ministry of Health develops yearly capital investment programmes that are included as an annex to the state budget. The methodology for the development of these programmes and the allocation of funds for capital investments to public health care institutions is approved by a ministerial order. The Ministry of Health elaborates the investment programmes in accordance with the health care investment policy. The current policy was included in the Budgetary Strategy for 2014–2016 and has as objectives: modernization of infrastructure and equipment of medical institutions (see section 4.1), including emergency services; rehabilitation of neonatology and obstetric wards; repairs of hospital buildings; and development of cardiovascular surgery centres for children and newborns.

There are no systems in place aimed at ensuring an equitable distribution of capital across the country and across various levels of care.

## 2.9 Patient empowerment

### 2.9.1 Patient information

Patients' rights to information are governed in several pieces of legislation, including Law 46/2003 on Patients' Rights, Law 95/2006, the Medical Profession Deontology Code issued by the National College of Physicians, and the legislation on hospital accreditation. These mainly give patients the right to information about their health and available treatments, as well as to informed consent (see also information on patients' rights in section 2.9.3), but also to information about the range of available services and certain information about the providers (see Table 2.2). There is no formal evidence on how well informed

patients are about their rights and if the available information is seen to be useful. In general, patients with access to the internet can obtain a wide range of information (e.g. through forums and chat rooms) but the reliability of such information is questionable.

**Table 2.2**

Types of information available to patients

Type of information	Where is it provided?	What type of information is provided?	Is there a legal obligation to provide such information?
Information about statutory benefits	Websites of the NHIH and the DHIHs	Range of services covered including services provided abroad	Law 95/2006
Comparative information about the quality of individual providers (e.g. doctors)	Independent websites providing information on health services and providers (e.g. <a href="http://www.doctorbun.ro">www.doctorbun.ro</a> )	Range of services covered and contact information	No
	Independent websites dedicated to various health topics (e.g. <a href="http://www.desprecopii.ro">www.desprecopii.ro</a> ; <a href="http://www.kudika.ro">www.kudika.ro</a> )	Mainly subjective opinions of the patients	No
Comparative information about hospitals	n/a <sup>a</sup>	n/a	No
Comparative information about the quality of hospitals	n/a <sup>b</sup>	n/a	No
Information on hospital clinical outcomes	n/a	n/a	No
Information on hospital waiting times	n/a <sup>b</sup>	n/a	No
Patient access to own medical record	At provider level	Information on diagnosis, treatment and costs (upon request)	Law 95/2006; Law 46/2003 on Patients' Rights
Interactive web or 24/7 telephone information	Phoneline of the Coalition of Organizations of Patients with Chronic Diseases in Romania ( <a href="http://www.copac.ro">http://www.copac.ro</a> )	Patients' rights, importance of preventive checkups, patient problems relating to access to health services	No
Information on patient satisfaction collected (systematically or occasionally)	Questionnaires used by individual hospitals (no countrywide survey); online forms	Opinions on service quality; complaints	Ministry of Health Order 146/2015 on the implementation of patient feedback mechanisms
Information on medical errors	n/a <sup>c</sup>	n/a	Law 95/2006

Source: Authors' own compilation.

Notes: <sup>a</sup>Non-comparative information, such as on available treatments (and their risks) and how to access them; conditions of hospitalization; tariffs (direct payments); health staff (including names, specialization, degrees and qualifications); hospital activity (including number of patients treated and number of operations per year, available equipment, partner institutions) is available on hospitals' websites, via hospitals' dedicated phone numbers, leaflets, posters or other electronic displays at hospital premises. Provision of such information is regulated in the Law on Patients' Rights; <sup>b</sup>Non-comparative information is available via internet forums; <sup>c</sup>Special commissions at the DPHAs or the College of Physicians investigate complaints about potential malpractice and have information on medical errors that have been proven as such, but this information is not published; n/a = not available.

### 2.9.2 Patient choice

Statutory coverage of the health insurance system is obligatory and opting out is not permitted. Patients can choose their provider (family physician, specialist and hospital for elective care) and participate in treatment decisions.

#### **Choice of provider**

Patients have free choice of health care provider among all providers that have concluded contracts with the DHIHs and there is no geographical restriction. Registration with a family medicine physician is mandatory and they act as gatekeepers to secondary care since accessing specialist care requires a referral from the family medicine physician; however, there are important exceptions, with no referrals needed for certain conditions and patient groups (see section 5.2). Many patients choose university hospitals even if their family medicine physician recommends their district hospital. In such cases, the primary care doctor would usually issue a referral to the chosen hospital. No measures have been taken to change this practice. If a person chooses a provider located outside their district of residence, they must cover their travel costs out-of-pocket (OOP). As a result, patients do not usually choose a provider located far outside their place of residence. Patients can change provider at any time, except for their family medicine physician – they can switch to another family medicine physician no sooner than six months after registering. Switching is more common in cities, where there is more choice of provider. In the countryside and small cities, the choice is limited as there is usually only one provider and patients would incur travel costs if they wanted to use a provider from another locality. Choice of provider was extended as part of the application of the cross-border care directive (see section 2.9.6).

#### **User involvement in treatment decisions**

Patients have the right to be informed about alternative treatments and on their respective risks and the consequences of the lack of treatment. They also have the right to a second opinion (see section 2.9.3). However, there is no evidence on whether these rights are used in practice. Drugs are prescribed by their generic name (INN) (see section 2.8.4) and patients can choose any drug prescribed in primary and ambulatory care that contains the prescribed active substance. Patients also have a choice of medical devices. The only limiting factor is the price; the NHIH usually only covers the cheapest products and patients have to pay the full price if they prefer a drug or device that is different from the prescribed one.

### 2.9.3 Patient rights

The key legal act in the area of patient rights in Romania is the Law 46/2003 on Patients' Rights. This Law includes some of the rights laid out in the Declaration of Patients' Rights in Europe launched by the WHO: the right to health care, health information, consent, protection of confidentiality and privacy (see Vlădescu et al., 2008b). The Law also has provisions regarding the obligation of providers to display patients' rights in medical units and states the obligation of health authorities to issue annual reports on their compliance with Law 46/2003 on Patients' Rights. The rights (and obligations) of the insured as parties in the contractual relationship with the NHIH are outlined in Law 95/2006, which also includes the right to a free choice of treatment, provider and the DHIH. The rights of patients with mental health problems are stated by the Law on Mental Health Promotion and Protection of Persons with Psychiatric Disorders adopted in 2002 (see Vlădescu et al., 2008b).

The main development in the area of patient rights in recent years has been the transposition of EU legislation, including Directive 2011/24/EU of the European Parliament and of the Council on the application of patients' rights in cross-border health care, to the national law (see section 2.9.6). The following rights stated in the European Charter of Patients' Rights present in the Romanian legislation are included in the national legislation: the right to preventive measures, free choice, respect for patients' time, observance of quality standards, safety, innovation, avoidance of unnecessary suffering and pain, personalized treatment, complaints and compensation. A practitioner guide on patient rights was published in December 2015 (see Ududec, Scîntee & Overall, 2015).

### 2.9.4 Complaints procedures (mediation, claims)

The key channels through which patients can assert their rights are the departments of public relations of the DHIHs and the Professional Jurisdiction Departments of the District Colleges of Physicians. The public relations departments of the DHIHs follow up on patient complaints and communicate the outcomes to the patient. They issue monthly reports on both the information requests and the complaints. The Professional Jurisdiction Department of the District College of Physicians analyses complaints in accordance with the Deontology Code. The Professional Discipline Commission decides on the sanctions.

Patients can also complain directly to the Ministry of Health or to their local DPHA, where special departments process the complaints. The focus is usually on whether administrative rules and procedures were adhered to.

Finally, patients may also seek legal redress through civil courts (see Table 2.3). There is no evidence on the utilization or effectiveness of the available complaints procedures.

**Table 2.3**

Summary of complaints avenues and liability/compensation mechanisms

Are hospitals required to have a designated desk responsible for collecting and resolving patient complaints?	Not required but in most public health care institutions and in the DHIHs there are departments of public relations dealing with patients' rights and access to entitlements
Is there a health-specific Ombudsman responsible for investigating and resolving patient complaints about health services?	No
Is liability insurance required for doctors and/or other medical professionals?	Yes, mandatory for all providers (public and private) (according to Law 95/2006); compensation includes the cost of legal trial (see below), which is shared by the patient and provider
Can legal redress be sought through the courts in the case of medical error?	Yes (see section 2.8.2), but the process is cumbersome and this may discourage patients from using it; the upper limits for compensation are established by the NHIH in consultation with the representatives of the insurers' and health providers' professional associations; provider's fault is established by a commission for malpractice monitoring, which comprises representatives of the DPHAs, DHIHs, district branches of health providers' professional associations and a legal medical expert
Is there a basis for no-fault compensation (when a patient experiences a medical injury that was not caused by the doctor's fault)?	Yes, the court decides on the no-fault compensation
If a tort system exists, can patients obtain damage awards for economic and non-economic losses?	Yes, the court decides the value of the awards for both economic or non-economic losses
Can class action suits be taken against health care providers, pharmaceutical companies, etc.?	Yes

Source: Authors' own compilation.

### 2.9.5 Public participation

Participation of the Romanian public in health policy decision-making has increased in recent years. The number of patients' organizations has risen and they have become more effective in making their voices heard. According to the Coalition of Organizations of Patients with Chronic Diseases in Romania (<http://www.copac.ro/asociatii>), one of the most active umbrella patients' organizations, there are over 40 patient organizations in the country. Patients' associations increasingly take part in various initiatives, such as the EU-financed project (implemented in 2013) titled "Mechanisms of consultation

among authorities and patients' associations", and they support patients in legal suits, including against the government (for examples of such actions, see APCR, 2014). They are also consulted during the development of the Framework Contract (see section 2.8.1) and may be consulted on an ad-hoc basis on other topics.

There are no countrywide surveys of patient satisfaction with the health system (see section 7.3.1). Occasional surveys have been conducted in the area of corruption (Asociatia Sf. Damian, 2010; MS&AID Romania, 2014) (see section 7.6) and interest in private providers (i.e. studies ordered by MedLife; IMAS, 2010, 2011, 2012).

### **2.9.6 Patients and cross-border health care**

Romania transposed the Directive 2011/24/EU on the application of patients' rights in cross-border health care into national legislation mainly through Title XVIII Cross-border health care of Law 95/2006, modified by the Emergency Ordinance 2/2014 and its subsequent regulations. Romanian citizens can access health care services in any EU Member State either by using the European Health Insurance Card (EHIC) for unplanned care (introduced in 2007) or, for planned care, with previous authorization from the NHIH or the Ministry of Health. The costs can be reimbursed up to the cost of the equivalent services in Romania. Necessary health care services and treatments that are not included in the benefit package covered by the NHIH can also be covered (including travel expenses) if a prior authorization has been obtained. Information on how to obtain cross-border health care is available through the National Contact Point within the NHIH (<http://www.cnas-pnc.ro/?l=en>).

In 2014, the number of reimbursement request forms for health care services provided abroad to Romanian insured patients in EU/EEA Member States or Switzerland was 47 774 and amounted to a total of €68.2 million. Out of these, 24 664 requests were for services provided on the basis of the EHIC, 1885 were for planned treatment and 21 225 for services provided on pre-authorization for residency change, i.e. for Romanian patients residing abroad who receive services outside Romania (NHIH, 2015a; NHIH, 2015b). In 2014, the NHIH submitted 1611 reimbursement request forms, amounting to around €733 260, to EU/EEA Member States or Switzerland (NHIH, 2015a).

In non-EU countries, Romanian patients can access health care services if they have a private health insurance covering them during travels abroad or if Romania has concluded a bilateral agreement with the visited country. There

are currently 28 bilateral agreements in place covering health and/or social protection and 14 bilateral agreements covering other sectors (such as education, sport, etc.) that include health care services (for a list of bilateral agreements see <http://www.cnas.ro/page/alte-state.html>).



### 3. Financing

According to WHO Global Health Expenditure data, in 2014 Romania was last among the EU Member States in terms of health expenditure as a share of GDP. After almost doubling in the period 1995–2010 (admittedly from a low base), health care expenditure in Romania as a share of GDP has been decreasing steadily since 2010, from 5.8% of GDP in 2010 to 5.6% in 2014. In 2013, total health expenditure (THE) per capita in Romania was the equivalent of US\$ 988, well below the EU average of US\$ 3379.

Although the total is low, the proportion that is publicly funded is relatively high; over 80% of THE is publicly funded, which is just above the EU average of 76%. Most public funding comes from the health insurance contributions to the NHIF – 67% in 2013. The share of OOP payments is the second largest source of revenue for health care spending (19% in 2014), while the contribution of VHI is marginal (0.1%). The share of informal payments is thought to be substantial, but the size is not known. The proportion of costs covered by the NHIF varies across goods and services, with inpatient care accounting for the highest share at 37.2%. The other major category of spending is medical goods, mainly pharmaceuticals (25.2%), although it has to be noted that this figure represents some debts accumulated over previous years (in particular since the removal of the ceiling on reimbursed drugs in 2008). While the share of THE spent on drugs in Romania is particularly high compared to other countries in Europe, absolute per capita pharmaceutical expenditure remains low compared to western Europe. On the other hand, the share of THE spent on outpatient care is among the lowest in Europe, according to OECD data.

Whilst social health insurance is in principle compulsory, in practice it covers only around 86% of the Romanian population, the main uninsured groups being people working in agriculture or those not officially employed in

the private sector; the self-employed or unemployed who are not registered for unemployment or social security benefits; and Roma people who do not have identity cards. Insured individuals are entitled to a comprehensive benefits package while the uninsured are entitled to a minimum benefits package, which covers life-threatening emergencies, epidemic-prone/infectious diseases and care during pregnancy.

The implementation of preventive national health programmes, some emergency care and capital investments are funded by the Ministry of Health. Local budgets fund hospital maintenance, repairs and inpatient meals. OOP payments consist mainly of direct payments for services offered by private providers, co-payments for drugs, which can be up to 80% of the retail price for some expensive prescription drugs, and other services. Each of the 43 DHIHs receives a budget from the NHIH to purchase services on behalf of the insured population in their respective geographical areas.

Primary care physicians own their practices and receive payments based on a mix of age-weighted capitation and fee-for-service (FFS). Ambulatory care specialists who own their practice and have entered into contracts with the DHIHs are paid on a FFS basis, but specialists working in hospital ambulatory units receive a salary, as do other hospital physicians. Nurses are paid a salary in both the public and private health care sectors. Hospitals receive prospective payments consisting of a mix of payment methods, including the Romanian diagnosis-related groups (RO-DRG) system. Emergency services and certain public health care services are paid from the state budget.

### 3.1 Health expenditure

In 2014, Romania spent 5.6% of its GDP on health. While the THE as a percentage of GDP almost doubled between 1995 and 2010, from 3.2% to 5.8%, a steady decrease has been observed since then (see Table 3.1), placing Romania last among the EU countries in terms of health expenditure as a share of GDP, just below the average for EU Members since May 2004 (6.78%) and at about half the average for EU Members before May 2004 (10.26%) (Fig. 3.1). Between 1990 and 2013, health expenditure as a share of GDP in Romania was consistently lower than in the comparator countries (Bulgaria, the Czech Republic, Hungary, Poland and Slovakia) (Fig. 3.2).

**Table 3.1**

Trends in health expenditure in Romania, 1995–2014 (selected years)

Indicators	1995	2000	2005	2010	2014
THE per capita at PPP (current lei)	183	248	522	964	1 079
THE as % of GDP	3.2	4.3	5.5	5.8	5.6
Mean annual real growth rate in THE	n/a	n/a	n/a	n/a	n/a
GGHE as % of THE	74.5	81.2	80.4	80.3	80.4
Private expenditure on health as % of THE	25.5	18.8	19.2	19.6	19.6
GGHE as % of general government spending	7.0	9.1	13.2	11.8	12.8
GGHE as % of GDP	2.4	3.5	4.4	4.7	4.5
OOP payments as % of THE	25.5	18.8	18.5	19.2	18.9
OOP payments as % of private expenditure on health	100.0	100.0	96.4	98.2	96.3
VHI as % of THE	n/a	n/a	n/a	n/a	0.1
VHI as % of private expenditure on health	n/a	n/a	n/a <sup>a</sup>	n/a <sup>a</sup>	0.7

Source: WHO Global Health Expenditure Database, 2016.

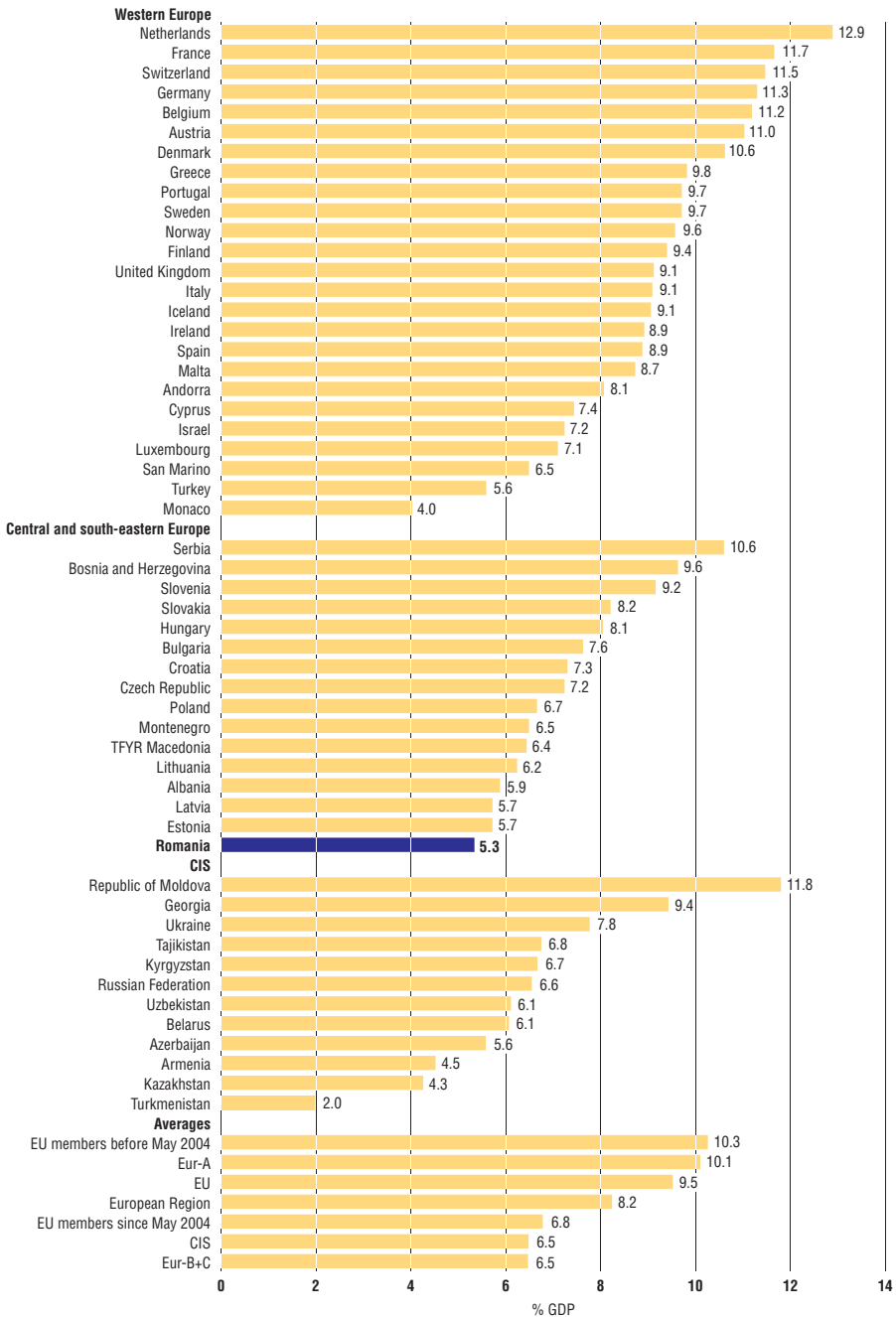
Notes: <sup>a</sup> Less than 0.5%; GGHE = general government expenditure on health; n/a = not available; PPP = purchasing power parity; THE = total health expenditure.

The drop in the THE as a percentage of GDP was influenced by the worsening of the general economic context, including the spending cuts implemented in order to meet the fiscal deficit target (see section 1.2) and the unstable political situation, with parliamentary elections being preceded by two cabinet reshuffles and a presidential impeachment referendum (National Bank of Romania, 2013).

According to WHO Health for All Database, THE in PPP per capita in Romania in 2013 was over three times lower than the EU average at US\$ 988 compared to US\$ 3379 (Fig. 3.3). The annual growth rate of per capita health expenditure in Romania averaged 9.1% between 2000 and 2009, falling to 0.4% between 2009 and 2012 (OECD, 2014a).

**Fig. 3.1**

Health expenditure as a share (%) of GDP in the WHO European Region, 2013

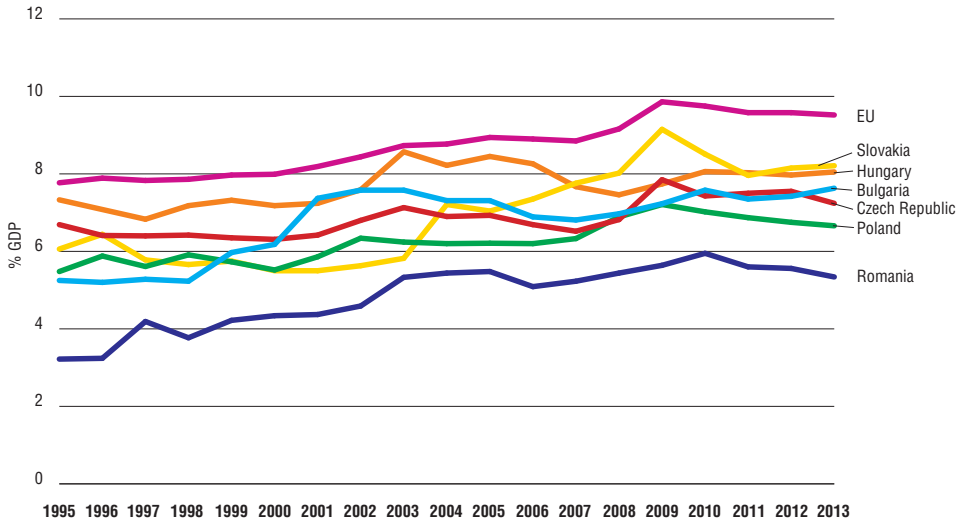


Source: WHO Regional Office for Europe, 2016.

Notes: European Region: the 53 countries in the WHO European Region; Eur-A: 27 countries in the WHO European Region with very low child and adult mortality (see WHO definition); Eur-B+C: 26 countries in the WHO European Region with higher levels of mortality (see WHO definition); CIS = Commonwealth of Independent States; TFYR Macedonia = The former Yugoslav Republic of Macedonia.

**Fig. 3.2**

Trends in health expenditure as a share (%) of GDP in Romania and selected countries, 1995–2013



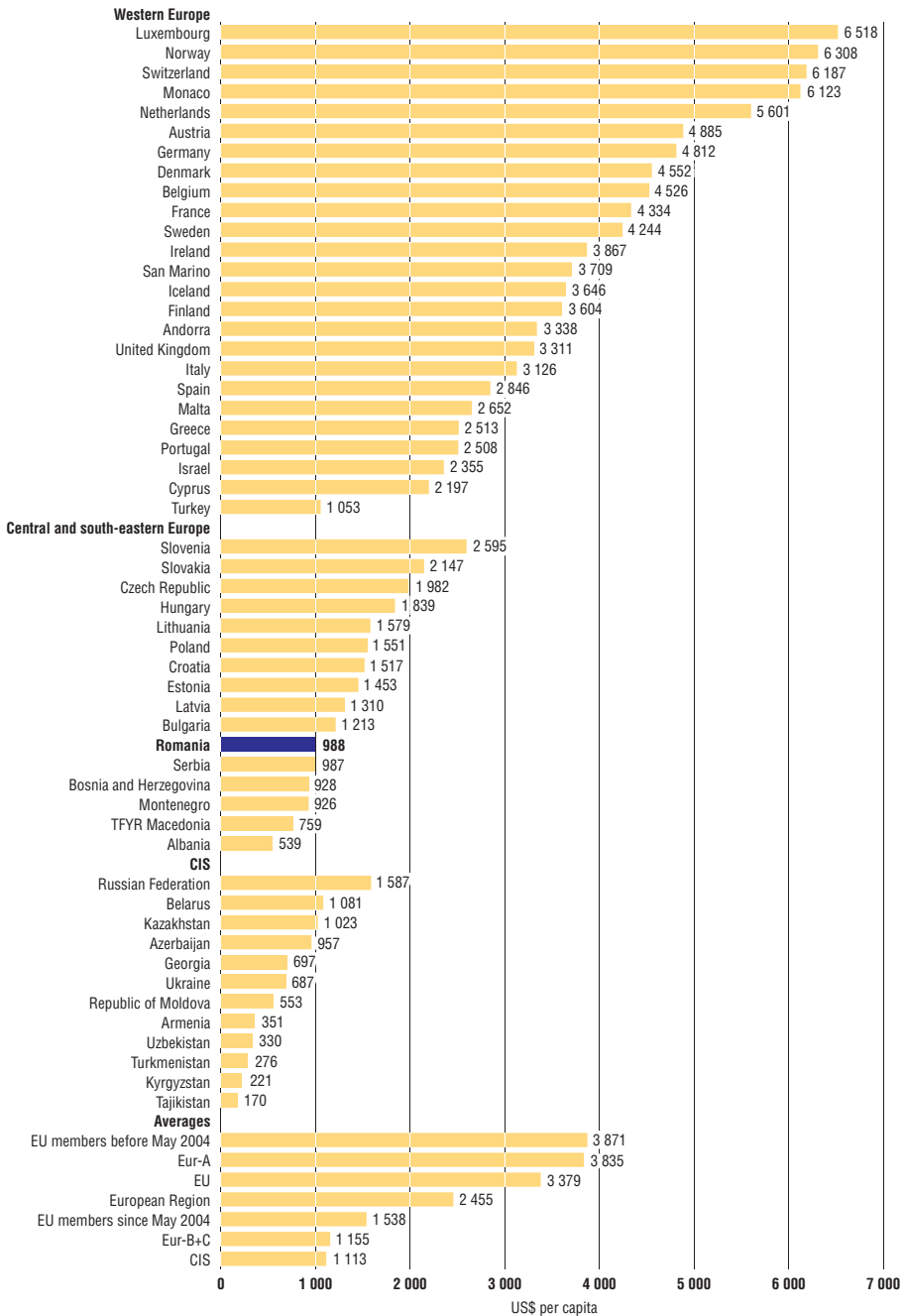
Source: WHO Regional Office for Europe, 2016.

The public sector accounts for the largest part of health expenditure (80% in 2014; see Table 3.1 and Fig. 3.4). This is lower than in the Czech Republic (83%) but higher than Slovakia (70%), Poland (70%), Hungary (64%), Bulgaria (59%) and the EU average of 76%.

Private expenditure accounts for the remaining 20% of THE but its extent may be underestimated because of unofficial payments. According to WHO National Health Accounts data (WHO, 2015b), 32% of THE was spent on inpatient care in 2012. This is a much lower figure compared to a decade earlier (2000), when inpatient care represented 55% of THE (see Table 3.2). Despite this decrease, Romania remains among the EU countries with the highest spending on hospital care as a percentage of THE, ranking third, behind Greece and France (OECD, 2014a). The other major category of spending is medical goods, mainly pharmaceuticals.

**Fig. 3.3**

Health expenditure in US\$ PPP per capita in the WHO European Region, 2013

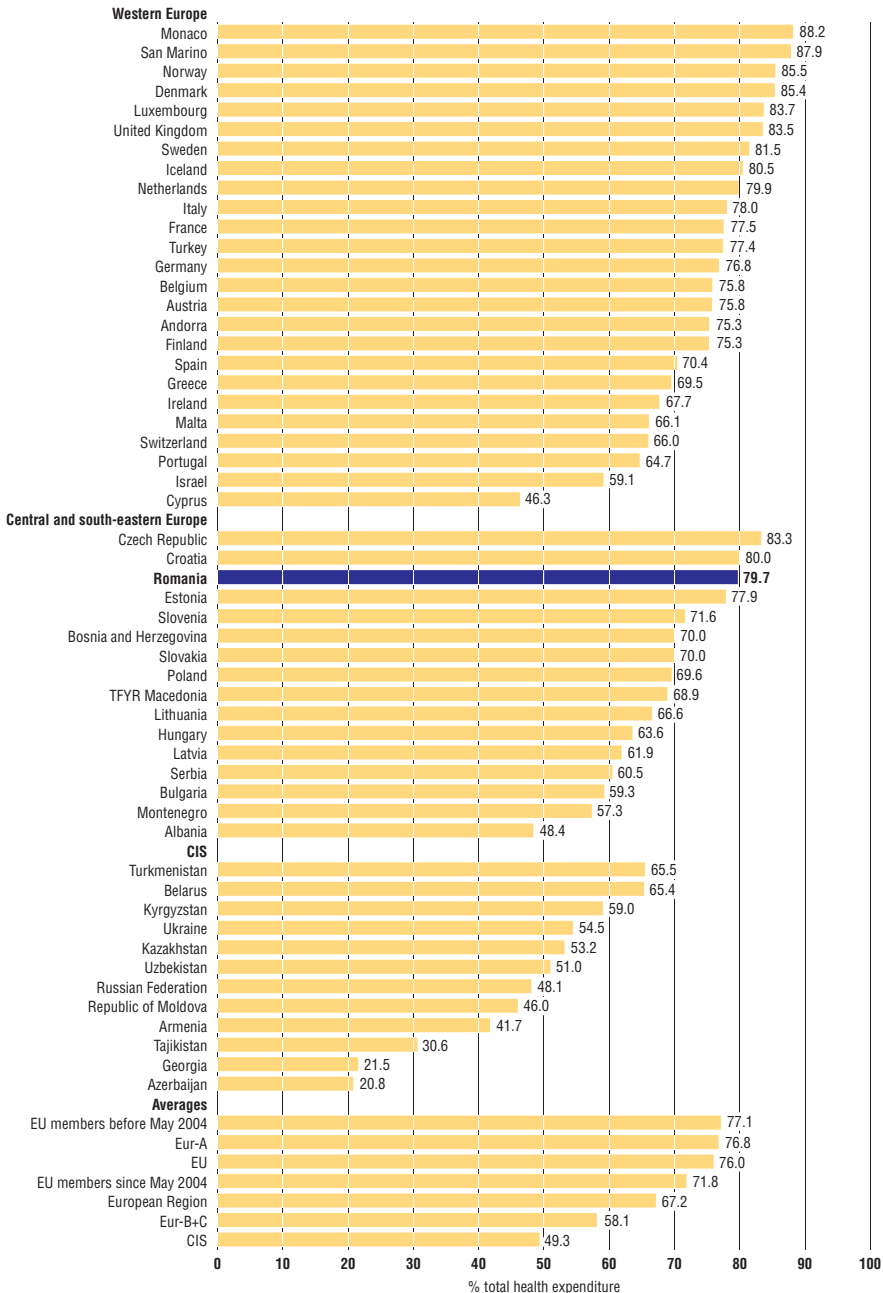


Source: WHO Regional Office for Europe, 2016.

Notes: European Region: the 53 countries in the WHO European Region; Eur-A: 27 countries in the WHO European Region with very low child and adult mortality (see WHO definition); Eur-B+C: 26 countries in the WHO European Region with higher levels of mortality (see WHO definition); CIS = Commonwealth of Independent States; TFYR Macedonia = The former Yugoslav Republic of Macedonia.

**Fig. 3.4**

Public sector health expenditure as a share (%) of total health expenditure in the WHO European Region, 2013



Source: WHO Regional Office for Europe, 2016.

Notes: European Region: the 53 countries in the WHO European Region; Eur-A: 27 countries in the WHO European Region with very low child and adult mortality (see WHO definition); Eur-B+C: 26 countries in the WHO European Region with higher levels of mortality (see WHO definition); CIS = Commonwealth of Independent States; TFYR Macedonia = The former Yugoslav Republic of Macedonia.

**Table 3.2**

NHIF expenditure on health by service category, percentage of total, 2000–2014  
(selected years)

Service category	2000	2005	2010	2011	2012	2013	2014*
Primary care	8.6	4.9	6.3	6.2	6.1	5.7	6.2
Ambulatory physician services	7.3	2.6	1.6	1.7	2.0	2.4	2.7
Ambulatory laboratories and imaging	0.0	2.3	1.8	1.7	1.7	1.6	2.4
Ambulatory dental services	1.3	0.6	0.3	0.3	0.3	0.1	0.2
Ambulatory mixed services*	0.5	1.0	0.4	0.4	0.4	0.3	0.4
Haemodialysis	0.00	1.9	3.3	3.7	3.5	3.1	3.4
Drugs	12.6	22.7	16.9	24.4	23.6	30.2	25.2
Drugs and sanitary materials within national programmes	8.2	8.8	8.3	9.9	11.7	13.1	12.1
Medical devices	0.3	0.5	0.5	0.6	0.6	0.7	0.8
Pre-hospital emergency services	2.9	2.9	3.7	3.6	3.3	0.5	0.1
Inpatient care	55.4	50.4	48.5	39.6	38.7	34.9	37.5
Home care	0.0	0.0	0.2	0.2	0.2	0.2	0.2
Health care services provided in another EU Member State	0.0	0.0	0.1	0.1	0.3	0.6	1.4
Sub-total	97.2	98.7	91.9	92.5	92.4	93.4	92.6
Cash benefits	0.0	0.0	5.9	5.8	5.7	5.3	6.0
Administration	2.8	1.3	2.1	1.7	1.8	1.3	1.4
Total	100%	100%	100%	100%	100%	100%	100%

Source: NHIH, 2014.

Notes: \*NHIH, 2015a; \*Ambulatory mixed services refers to ambulatory polyclinics that offer both physician as well as laboratory and imaging services; such clinics report aggregated expenditures for all types of services provided.

Table 3.2 shows trends in the expenditure of the NHIF on different service categories (NHIH, 2014; NHIH, 2015a). Apart from paying for health care services, the NHIF also pays cash benefits during maternity or sick leave, representing around 6% of its total expenditure. After inpatient care, which accounts for approximately 37% of the NHIF's expenditure, the highest share of total NHIF expenditure is on drugs, at 25% in 2014, although it has to be noted that until 2014 some of the expenditure on drugs represented debts accumulated over previous years, e.g. late reimbursement of pharmaceuticals producers and distributors, that were repaid later (see section 6.1). According to the OECD, in 2012 Romania ranked fifth in terms of the share of THE spent on drugs among 23 EU countries<sup>3</sup> (OECD, 2014a). Expenditure on drugs and other medical goods has seen a steady increase since 1999 (Vlădescu et al., 2008b), driven in part by increases in the volume of medicines consumed, the substitution of older pharmaceuticals with newer and more expensive ones, and the introduction of new pharmaceuticals for conditions for which medical treatment was previously

<sup>3</sup> Bulgaria, Ireland, Italy, Malta and the United Kingdom were not included in the analysis.



not available (World Bank, 2011b). Nevertheless, pharmaceutical expenditure per capita in Romania, at €16 in 2012, is still low compared to the average for 25 EU countries<sup>4</sup> (OECD, 2014a).

The share of expenditure on primary and ambulatory care decreased from almost 18% in 2000 to approximately 15% in 2014 (Table 3.2). According to OECD data, in 2012 Romania spent the smallest share of THE on outpatient care among the 23 EU Member States compared (OECD, 2014a).

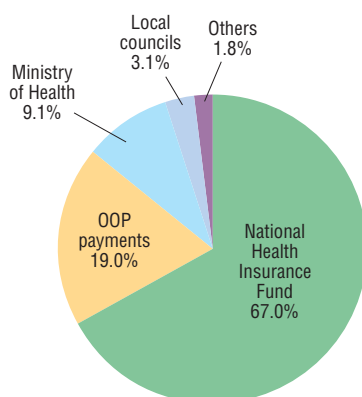
The NHIF occasionally runs deficits, but these have been relatively small in the last 10 years – on average 2% of its revenues in the period 2004–2014 (NHIH, 2014). The main reason for these financial deficits has been incorrect estimation of budget and pharmaceutical expenditure (see above).

### 3.2 Sources of revenue and financial flows

The Romanian health system is financed from four main sources: national health insurance funds, the state budget, local budgets and OOP payments. The contribution of VHI is marginal, at 0.1% of total expenditure on health in 2014 (see section 3.5). Fig. 3.5 provides an overview of the shares of various sources of revenue as a percentage of total expenditure on health, although the true share of the financing sources may be different because of informal payments (see section 3.4.3).

**Fig. 3.5**

Percentage of total expenditure on health according to source of revenue, 2013



Source: National Institute of Statistics, 2015b.

Note: Others consist of funds from other ministries, private insurance and NGOs.

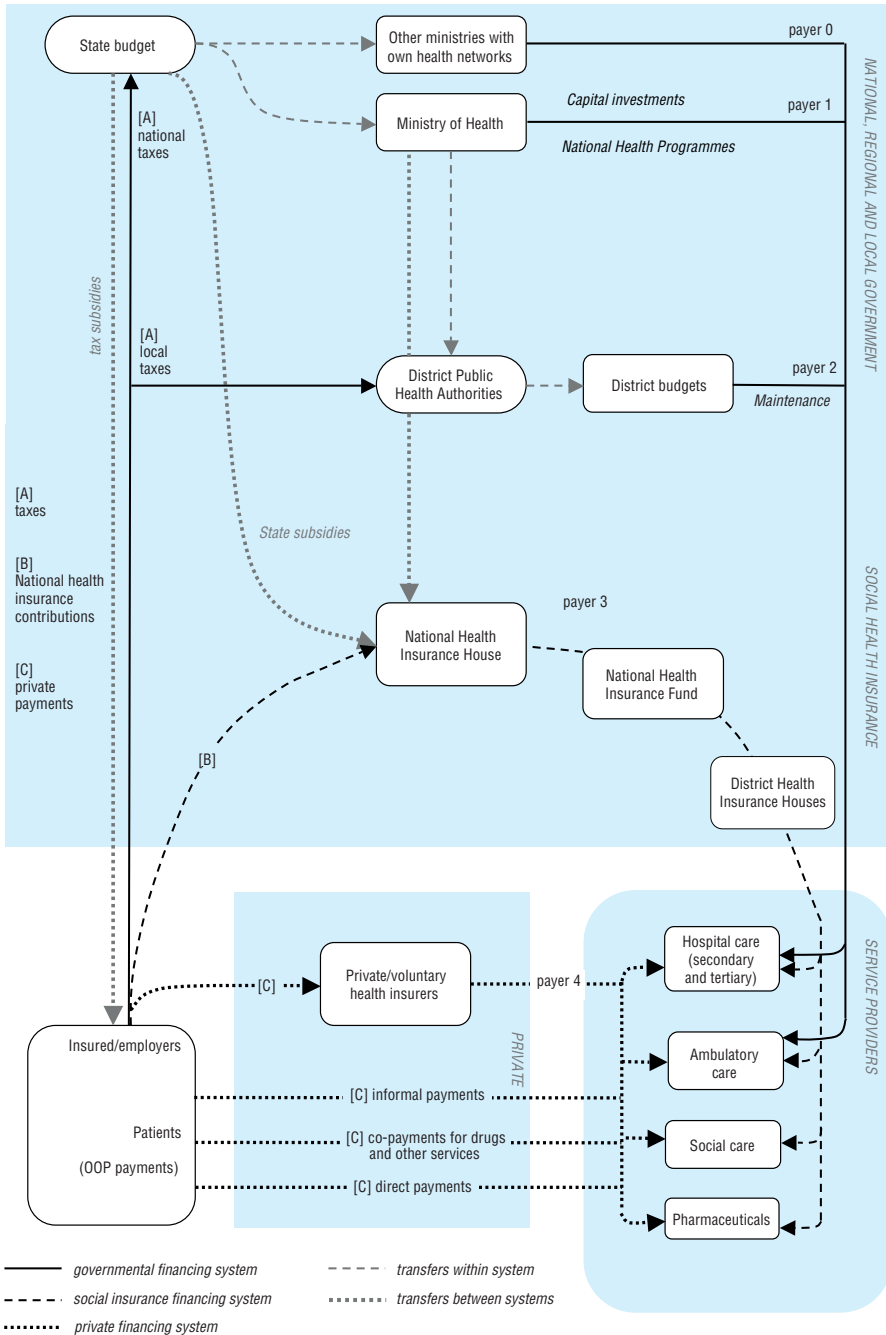
<sup>4</sup> Bulgaria, Malta and the United Kingdom were not included in the analysis.

In 2013, the most important source of revenue for health care spending was the NHIF, accounting for 67% of total expenditure (Fig. 3.5), followed by OOP payments in second place, then Ministry of Health funds (9%) and local budgets (3%).

According to the National Health Accounts (WHO, 2015b), 83% of public expenditure on health came from national health insurance funds. These shares have not changed much since the social health insurance system was implemented in 1999. In 2000, general government expenditure accounted for 81% of total expenditure on health, out of which 82% came from national health insurance funds (WHO, 2015b).

Funds from the Ministry of Health are used for the implementation of preventive national health programmes and for investment (Fig. 3.6). Local budgets pay for maintenance, repairs and inpatient meals. OOP payments consist mainly of direct payments for services offered by private providers and co-payments for drugs and other services. Informal payments are not visible in the statistics but their share may be considerable (see section 3.4.3).

**Fig. 3.6**  
Financial flows



Source: Authors' own compilation.

Notes: Financial flows related to rehabilitation care have not been included in this figure because their collection and administration is overseen by the Ministry of Labour, Family, Social Security and Elderly and its subordinate institutions.

## 3.3 Overview of the statutory financing system

### 3.3.1 Coverage

#### **Breadth: who is covered?**

According to the provisions of Law 95/2006, the social health insurance system is compulsory for all citizens, as well as for foreign residents in Romania, and opting out is not possible. The main criterion for entitlement is proof of contribution payment or of status that allows coverage without contribution. When accessing health care services, if not already registered with the SIUI (see section 2.7.1) one must present a certificate of registration from the DHIH. This certificate can be obtained by showing, among others, evidence of payment of insurance contributions for the past five years. Any missing contributions (including penalties) must be paid in order for this certificate to be issued. The National Health Insurance Card, which was introduced in 2015 (see section 4.1.4), should be presented at the point of health service delivery, together with proof of contribution payment or exemption, as a tool that validates service provision in the NHIH's system and ensures that the provider is reimbursed. It is also seen to prevent fraudulent reporting of health care services; for example, with the electronic system it will be very difficult to report services that were not provided or to issue drug prescriptions to fictive patients.

Other population groups entitled to benefits are: permanent or long-term residents or persons staying temporarily in Romania, foreigners or stateless persons, citizens of EU Member States, EEA states or the Swiss Federation not insured in other EU Member States; citizens of EU Member States, EEA states or the Swiss Confederation who are cross-border workers working in Romania and reside in other EU Member States, EEA states or the Swiss Confederation; Romanian pensioners who are resident in other EU Member States, EEA states or the Swiss Confederation or in a country with which Romania has a mutual social security agreement with provisions regarding health insurance (see section 2.9.6).

Some population categories are exempted from the contribution payment. Their contributions are paid by one of the following sources: the unemployment insurance budget from the Ministry of Labour, Family, Social Protection and Elderly covers the unemployed; the work accident and occupational disease insurance fund covers persons on sick leave due to a work accident or occupational disease; the state budget covers persons in penitentiaries, persons on maternity leave for up to two years (three years for children with disabilities), pensioners with incomes under 740 lei a month (approximately €155), refugees

during the period of status clearance, persons living on social benefits, monks, nuns and other personnel living and working in the monasteries with no income, etc. The following population groups are insured with no obligation to pay insurance contributions (provision of health care services for these groups is financed from the contributions of the paying population): children and young people up to 26 years old if they are enrolled in any form of education or are coming out from child protection institutions and have no own income; war veterans and their widows; victims of political persecutions between 1945–1989; people with disabilities; chronically ill patients covered under national health programmes; pregnant women (Law 95/2006).

Although social health insurance is compulsory, in 2014 only 86% of the population was covered, with the proportion higher among those living in urban areas, at 94.9%, compared to rural areas at 75.8% (NHIH, 2015a). The uninsured are: people working in agriculture or those not officially employed in the private sector; self-employed or unemployed who are not registered for unemployment or social security benefits; and Roma people who do not have identity cards, which precludes them from enrolling into the social security system. The uninsured can only access a minimum benefits package, which is strictly enforced. This package covers emergency care, treatment of communicable diseases and care during pregnancy.

Some population groups cannot access health care services due to: lack of knowledge regarding the benefits to which they are entitled (see section 2.9.1); lack of respective services in their area of residence (e.g. family medicine physicians in some remote areas) combined with the lack of resources to cover travel costs and/or poor transport infrastructure; and scarcity of financial resources in the health care system. For example, until 2015, patients undergoing hospital treatment could be offered the option of purchasing necessary drugs or materials themselves when the hospital where they were treated was not able to offer them free of charge; this practice has been forbidden since 2015.

### **Scope: what is covered?**

The insured population is entitled to a basic benefits package described in the Framework Contract (see section 2.8.1). The basic benefits package is standard across the whole covered population and includes health care services, pharmaceuticals and medical devices. The minimum package for uninsured persons is set on the basis of three main criteria: life-threatening emergencies, epidemic-prone/infectious diseases and birth. Covered health care services include: preventive health care services, ambulatory health care, hospital care, dental services, medical emergency services, medical rehabilitation services,

pre-, intra- and post-birth medical assistance, home care nursing, drugs, health care materials and orthopaedic devices. Insured persons are entitled to health care services from the first day of sickness or the date of an accident until they are fully recovered.

The list of excluded services is provided by Law 95/2006, by listing services that are paid by other sources (e.g. services covered by the insurance fund for work accidents and professional diseases), services requiring very expensive technology or services that are considered not to have a medical justification (e.g. plastic surgery for aesthetic corrections, in vitro fertilization (IVF)) (see section 3.4).

The NHIF's budget also covers cash benefits in case of sickness leave. Cash benefits in other situations (e.g. disability, invalidity, etc.) are paid by other funds of the social security system (see section 2.1). Since 1 January 2007, when Romania joined the EU, the NHIH has provided insured persons (upon request) with the EHIC, which allows them to receive necessary medical assistance during a temporary stay in an EU/EEA country and Switzerland, in accordance with specific EU regulations transposed into the Romanian legislation (see section 2.9.6).

Decisions on the services and goods to be included or excluded from the statutory benefits package are taken by the NHIH and the Ministry of Health. There are no clear inclusion or exclusion criteria and decisions are based on consultations with different actors. For pharmaceuticals, a positive list is elaborated by the National Agency for Medicines and Medical Devices with input from their newly created HTA department (see section 2.7.2).

### **Depth: how much of the benefit cost is covered?**

Cost sharing is applied for certain goods and services included in the basic benefits package (see section 3.4). For pharmaceuticals delivered within ambulatory care, patients have to pay 10% of the reference price for generic prescription drugs and 50% for branded or innovative prescription drugs. For expensive prescription drugs, with prices higher than the reference price, a patient's contribution can be as high as 80% of the retail price. The aim of having user charges (*co-plata* in Romanian) is to control the costs of prescription drugs. Cost sharing is also applied to balneary (spa) treatment and rehabilitation services. The patient pays 30–35% of the daily tariff and pays the full tariff for lengths of stay over 14–21 days and for non-emergency admissions without a referral. From 2013, hospitals have also been charging a small co-payment for hospital admissions (less than €2.5, payable at discharge), with the aims of reducing hospital admissions and increasing the income of hospitals. The

following groups are exempted from hospital co-payment: children and young adults up to 18 years old and young people up to 26 years old if they are enrolled in any form of education; patients covered by the national health programmes; pregnant women without income; and pensioners with income under 740 lei (approximately €155) per month. The impact of this new user charge has not been evaluated but so far appears to be marginal.

The DHIHs can sign contracts for health care provision with private providers. The amount of reimbursement these providers receive is the same as public providers but, unlike public providers, they can charge, on top of the amount reimbursed, an additional fee for the services they provide (extra billing). This applies only to secondary health care (ambulatory and inpatient) and not to primary health care.

### 3.3.2 Collection

#### State and local budgets

In 2013, state (Ministry of Health) and local budgets accounted for about 12% of total health financing (see Fig. 3.5). This revenue comes from taxation and does not include funds from other budgets such as insurance contributions for exempted population groups (this is included in the NHIF's income). Taxes are not specifically earmarked for health, except for some special taxes imposed on tobacco and alcohol production, import and procurement, with the purpose of controlling their consumption.

The overall tax-to-GDP ratio of Romania is one of the lowest in the EU, at 28.3% in 2012, compared to an EU GDP-weighted average of 39.4%. Romania has the second highest reliance on indirect taxes in the EU. In 2012, indirect taxes accounted for 47.2% of total tax revenue compared with 34.5% for the EU average, while the share of social insurance contributions accounted for 31.2% (32.4% in the EU) and direct taxes for only 21.6% (33.4% in the EU) (Eurostat, 2014).

The individual and corporate income tax rates for 2015 were flat at 16%. Capital gains of companies and individuals were also taxed at 16%. For individuals the tax rate for gain from sale of real estate is 1–3%. Besides general and local taxes and social health insurance contributions (see 'Contributions pooled by the NHIF' below), employers and employees contribute to the social security fund, with 15.8% paid by employers and 10.5% by employees, and the unemployment fund, at 0.5% each. In addition, employers must pay a number of other contributions, e.g. for disability ([www.worldwide-tax.com](http://www.worldwide-tax.com), 2015).

The Ministry of Public Finances, through its structures, is responsible for collecting both general and local taxes<sup>5</sup>, and contributions for specific funds. The NHIF's annual budget is proposed by the government and approved by the parliament as an annex in the Budget State Law (see section 3.3.3). Contributions are collected at the central level by the National Agency for Fiscal Administration. Taxes, through different budgets (state budget, social insurance budget, unemployment insurance budget and local budgets) also cover insurance contributions for some population categories exempted from the contribution payment (i.e. people during military service or detention, medical leave, the unemployed, people under social security benefits schemes, etc.). The collection rate for social health insurance contributions is not 100%, as some entities do not pay the full amount due.

### **Contributions pooled by the NHIF**

Revenue of the NHIF comes from contributions paid by the insured population and employers, state budget subventions and transfers, and other sources (donations, interest rates, etc.) (see section 3.3.1). In 2014, the structure of the NHIF's income was as follows: 76.3% from contributions (36% from employers, 40.3% from insured persons); 16.8% from the state budget, including subventions from the state budget; 6.6% from the claw-back tax; and 0.3% from other sources (NHIH, 2015a).

Contributions are collected by the National Agency for Fiscal Administration, under the remit of the Ministry of Public Finances. Since the social health insurance scheme is compulsory by law, those who cannot provide a proof of being insured when accessing health care services may be liable to pay the legal contributions (and penalties) retrospectively (for up to six months, unless they can prove they had paid the contributions in some of those months).

Contribution rates vary for the insured population and employers. The contribution rates are set by Law 95/2006. The rates in 2014–2015 were: 5.5% of gross salary from the insured and 5.2% from the employer. In 1999, the rate was 7% (uniform for both employees and employers). The self-employed pay 10.7%. The contribution paid by the insured is calculated on gross income obtained from salaries, independent activities, agriculture, lettings, pensions (income over the tax base limit, which is 740 lei or €55 per month), dividends and interests on personal bank reserve accounts.

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<sup>5</sup> Local taxes include building tax, land tax, registration, licensing, certifications, authorizations issuance taxes, tax on means of transport, tax on means of promotion and advertising, tax on revenues from public performances, hotel occupancy tax. These are paid to the local budgets of villages, towns and municipalities, Bucharest districts or counties, depending on the case, by any individual or legal person (PwC, 2014).



Some population categories are exempted from the contribution payment, either with the contributions paid on their behalf (e.g. from the unemployment insurance budget for the unemployed) or with no payment obligation (see section 3.3.1). Between 2002 and 2004 exemption from the contribution payment was extended to cover more population groups (e.g. pensioners and beneficiaries of social security benefits) so that, by 2005, only 5 million people were paying insurance contributions, while 22 million were entitled to benefits (Scîntee & Vlădescu, 2006). This was changed by Law 95/2006 and subsequent amendments, which reduced the number of exemptions; for example, pensioners whose income (pension) is over the taxation base have been required to contribute since 2010, with contributions due only on the amount that exceeds the taxation base or on other extra-pension incomes.

### 3.3.3 Pooling of funds

#### **Allocation from collection agencies to pooling agencies**

The overall health care budget, including the budget of the NHIF, is set annually by the government and approved by the parliament through the State Budget Law. The majority of the health budget (61%) is allocated through the Ministry of Health, 33% via local budgets and 6% through other ministries (2013) (National Institute of Statistics, 2015b). Some of the budget can also be transferred to the NHIF to pay for drugs and treatments or added to the Ministry of Health's reserve (Law 95/2006). State funding for health is earmarked for specific purposes before distribution to the Ministry of Health and to the other ministries with their own health networks. Funds that are allocated to one spending category cannot be transferred to another. The Ministry of Health allocates funds to the DPHAs or directly to its subordinated units (i.e. hospitals, institutes of public health) in accordance with the approved budget. Allocations to the DPHAs are based on proposals made by the representatives of the DPHAs and rely heavily on historical allocations. Funds allocated to the preventive national health programmes are distributed to different institutions according to their responsibilities in programme implementation. Budgets for capital investments (see section 2.8.6) are included in the annual programmes developed by the Ministry of Health and are based on a specific methodology. The programmes are included as an annex in the State Budget Law. Funds for capital investments are transferred from local budgets to health care facilities on the basis of a pre-approved capital investment plan (see Vlădescu et al., 2008b).

The funds for services under the social health insurance system are pooled in the NHIF. These funds include: contributions collected by the Ministry of Public Finances through the National Agency for Fiscal Administration;

contributions paid from different public budgets for certain categories of the insured; transfers from the Ministry of Health for treatments under the national health programmes; and other incomes. According to the law, in justified situations, the NHIF's deficit can be covered by subventions from the Ministry of Health budget, after the NHIF's reserve fund is exhausted (Law 95/2006). The NHIF is administered by the NHIH that allocates money to the DHIHs for purchasing services, in accordance with the approved budget. As with the DPHAs, the allocations are based on the proposals of the representatives of the DHIHs and rely on historical allocations. One per cent of the total annual NHIF budget is retained as a reserve. This reserve fund can only be used if there is a budget surplus and only after all outstanding debts have been paid (Law 95/2006).

### **Allocating resources to purchasers**

The DHIHs purchase services on behalf of the insured population in their respective geographical areas. Each DHIH receives a budget from the NHIH. The budget determines the allocation for each type of health service the DHIHs have to purchase. No adjustment is allowed at the purchaser level (except for when reserve funds can be used, in which case the allocation can be increased; see above).

### **3.3.4 Purchasing and purchaser–provider relations**

All purchasing contracts concluded between the DHIHs and providers must comply with the Framework Contract and its implementation norms (see section 2.8.1). The implementation of the Framework Contract is monitored by special departments at both the NHIH and DHIH levels. Other departments in these institutions periodically monitor providers in order to check compliance with the contract for provision of services; compliance checks are undertaken for volume but, although there are provisions for monitoring quality, this is not implemented in practice, due to lack of capacity (see section 2.8.2). The Framework Contract sets the sanctions for each type of violation or failure to meet the obligations under the contract. Sanctions are foreseen for both the DHIHs and service providers. The same contracting rules apply to both public and private providers. There is no competition and the DHIHs usually sign contracts with all providers in the district (see Vlădescu et al., 2008b).

## 3.4 Out-of-pocket payments

Out-of-pocket payments in Romania include: direct payments for goods or services that are not included in the statutory health insurance benefits package or covered by the national health programmes; direct payments by uninsured patients; direct payments for (uncontracted) private providers; user charges for some health care services and pharmaceuticals; and informal payments.

The exact share of private expenditure on health has always been difficult to estimate because of informal payments and the underreporting of incomes by private providers. As shown in Table 3.1, OOP expenditure as a share of total health spending in Romania decreased from 26% in 1995 to 19% in 2014.

### 3.4.1 Cost sharing (user charges)

The introduction of user charges in 2002 aimed to reduce the inappropriate demand for health care services, to contain costs and to raise revenue. A list of services for which user charges were to be applied was to be established by a commission comprising representatives of the Ministry of Health and NHIH, agreed by the College of Physicians, and made statutory by the relevant Framework Contract and its implementing norms (see section 2.8.1). However, apart from inpatient care, no such lists have so far been developed and the co-payment for hospital admission, which is charged at the point of discharge (less than €2.5), although included in the legislation since 2002, was only implemented in 2013 (see section 6.1). Vulnerable population groups were exempted from this co-payment, as were certain hospital services (Table 3.3). Private providers contracted by the DHIHs can charge extra for services they provide (extra billing) and this is generally not regulated. In 2013, extra billing for superior hospital accommodation was capped at 300 lei per day (less than €70) with no explicit justification.

A reference price system is applied for pharmaceuticals. The reference prices are based on the lowest-priced product within a cluster of medicines. In addition, patients have to pay 10% or 50% of the reference price (i.e. of the lowest-priced product in the cluster). If the patient prefers a more expensive product, they will also have to pay the difference between the price of the lowest-priced product and the price of the desired drug (see section 2.8.4).

Co-insurance is applied for balneary treatment and rehabilitation services. The patient contributes 30–35% of the daily tariff and pays the full tariff for lengths of stay over 14–21 days and for admissions without referral (see section 3.7).

**Table 3.3**

## User charges for health care services

Type of user charge in place	Exemptions and/or reduced rates	Cap on OOP spending	Other protection mechanisms
<i>Primary care*</i>			
<i>Outpatient specialist visit*</i>			
Extra billing**			
<i>Outpatient prescription drugs</i>			
Reference pricing			
<i>Inpatient care</i>			
Co-payment	Children and young adults up to 18 years old; young people up to 26 years old if they are enrolled in a form of education; patients covered by national health programmes; pregnant women without income; pensioners with income under the taxation level (740 lei per month – approx. €155)	Up to €2.5 per hospital admission (payable at discharge)	Services excepted from co-payment: emergency care, palliative care, provision of legal medical expertise
Extra billing**		Up to €70 per day for superior accommodation	
<i>Dental care</i>			
Extra billing**			
Medical devices			
Extra billing**			
<i>Balneary services</i>			
Co-insurance	War veterans; former political detainees; heroes of the December revolution	No; full price for stays over 14–21 days	
<i>Rehabilitation services</i>			
Co-insurance		No; full price for stays over 14–21 days	

Source: Official Gazette, 2014a.

Notes: \*Co-payment allowed by Law 95/2006 but not implemented via secondary legislation; \*\*Only for private providers contracted by the DHIHs.

Institutions that provide both social and medical care are mainly financed from OOP payments and funds from the state, the NHIF and local budgets. The level of OOP payments made by the clients of these institutions is set by the local authorities that own them.

### 3.4.2 Direct payments

Services that are not covered by statutory health insurance and that require payment of the full fee include: treatment of occupational diseases, treatment of work and sports accidents, services that require certain medical equipment, some dental services, plastic surgery for aesthetic purposes for persons over

18 years (except for breast reconstruction after mastectomy), some medical supplies and forms of transport (that are not specified within the law), issuing of medical documents, IVF, the cost of certain devices used to correct eyesight and hearing, and some rehabilitation treatments (Law 95/2006). Patients who visit a specialist without a referral from the family medicine physician must pay the full fee. The amount varies depending on the service required and the type of specialist. Fees charged by non-contracted providers are not regulated.

### 3.4.3 Informal payments

Informal payments are firmly rooted in Romanian culture, with the practice growing in intensity during the communist period. There have been several surveys on informal payments in Romania, attempting to measure their magnitude, frequency, geographic variation and the rationale behind them over the years, but since these were elaborated by different institutions that used different methodologies, their results are not comparable.

A study conducted in 2010 in the north-east of Romania, which focused on corruption in the health care system, revealed that 75.5% of those admitted to hospital in the previous year had offered so-called gratitude payments to medical staff and 3.6% of patients had offered gratitude payments but the medical staff had refused to accept them (2.1% of the respondents did not provide an answer). Over 60% of the respondents considered the main reason for medical staff accepting gratitude payments to be the very low level of their earnings (Asociatia Sf. Damian, 2010).

Another study on corruption in the health care system conducted across the whole country in 2014 by the Association for the Implementation of Democracy found that 37% of those who had been admitted to hospital in the previous year had offered so-called gratitude payments to physicians, 34% to nurses, 25% to housekeeping staff and 14% to other auxiliary staff (lab technicians, porters, stretcher-bearers, etc.); 60% of those who offered gratitude payments said that this was their own choice, while 10% said that the medical staff had requested the informal payments (MS&AID Romania, 2014).

## 3.5 Voluntary health insurance

### 3.5.1 Market role and size

VHI plays a marginal role in the financing of health care in Romania. According to the national health accounts, in 2014 the share of VHI represented 0.1% of total health care spending. This share remained largely unchanged through the last decade (see Table 3.1) (WHO Global Health Expenditure Database, 2016). VHI plans mainly offer access to superior accommodation in hospital, choice of provider and private care (supplementary cover) rather than access to services that are fully or partly excluded from the statutory scheme (complementary cover). It is not possible to opt out of the statutory scheme and purchase substitutive VHI cover (Olsavszky, 2016).

### 3.5.2 Market structure

Any person entitled to the basic package provided by the statutory health insurance scheme is eligible to purchase VHI. VHI can be purchased individually or by employers as a health benefit for employees. A typical person purchasing VHI cover would be under the age of 45–50 years, better educated, with higher income, in paid employment (typically working for a multinational or large national corporation) or self-employed, and living in an urban area. There are no available data on the share of the population covered by VHI or on the proportion of individual versus employer-based coverage.

The NHIH and 12 commercial insurers are active in the insurance market offering VHI. The market share of VHI in the overall insurance market (excluding statutory health insurance scheme) is very small, at less than 0.5% of the total gross written premiums of the life insurance market in 2010 (Olsavszky, 2016).

### 3.5.3 Market conduct

Law 95/2006 provides the legislative framework for VHI providers. The Law does not cover the following areas: occupational health, work-related accidents and health care ‘subscriptions’ (contracts for health services with health care providers popular among employers in late 1990s). Based on the definition provided by Law 95/2006, the scope of VHI can only be complementary or supplementary to the statutory benefits package.

The premium-setting method is not regulated, but the Law mentions that the insurer can ask the applicant for a preliminary medical check-up. The Ministry of Health is supposed to set upper limits for the tariffs but this is not done in practice. VHI should not cover benefits included in the basic package offered by social insurance.

Insurers contract with selected providers and pay them on a FFS basis. Tariffs are usually negotiated between insurers and providers. VHI tariffs are usually higher than tariffs in the statutory scheme. Integration of insurers and providers is rare.

### 3.5.4 Public policy

A tax deduction of €200 per year for all insurance plans purchased (not only for VHI) was introduced in 2006. In 2015, tax deduction for VHI was increased to €250 per year (€400 for all other insurance). For information on the regulation of VHI companies, see section 2.8.1.

## 3.6 Other financing

### 3.6.1 Parallel health systems

Traditionally, Romania had parallel health systems, financed by the respective ministries: Transport, National Defence, Internal Affairs, Labour and Social Protection, and the Intelligence Service (see section 2.1). Currently, these systems are reduced in size either through the closure of some institutions, such as asylums or rehabilitation centres for people with disabilities under the Ministry of Labour, Family, Social Protection and Elderly, or the transfer of others to the Ministry of Health. This includes, for example, the transfer of several hospitals from the Ministry of Transport to the Ministry of Health in 2013, together with the closure of the special health insurance house for employees working in transport.

Providers operating in the parallel health systems receive funds from their respective ministries for investment and different health programmes, but the provision of health care services is financed by the DHIHs or CASAOPSNAJ (insured persons can freely choose among any DHIH or CASAOPSNAJ; see section 2.3). The NHIF allocates budgets to the DHIHs and CASAOPSNAJ. Very severe cases from all hospitals, no matter the system in which they are included, are covered by the Ministry of Health if their costs cannot be covered by the NHIF.

Persons employed in the ministries that operate parallel health systems are not obliged to use them and can access any provider and any DHIH of their choice.

### 3.6.2 External sources of funds

Since Romania joined the EU, the volume of external financial assistance has decreased as many international donors reduced or closed their activity in the country (e.g. USAID). Some international organizations are still active in Romania, such as the World Bank and Unicef. A new Country Partnership Strategy between the World Bank and Romania was signed for the period 2014–2018 in October 2013. Health is explicitly mentioned as one of the pillars of the Strategy (World Bank, 2014). The Strategy supports comprehensive medium- and long-term health sector reforms, focusing on three main areas/components: hospital network rationalization; ambulatory care strengthening; and health sector governance and stewardship improvement.

The latest project in the health sector to be supported by the World Bank was the Romania Health Sector Reform Project (APL 2). APL 2 was the second phase of an agreed two-phase adaptable programme loan (APL) with an estimated budget of US\$ 206.5 million (€167.9 million), supported by a US\$ 80.0 million (€65.1 million) International Bank for Reconstruction and Development (IBRD) loan, a US\$ 81.8 million (€66.4 million) European Investment Bank (EIB) loan, and US\$ 44.8 million (€36.4 million) in funding from the Government of Romania. The project was approved in December 2004 and closed in December 2013. It covered the following areas: maternity and neonatal care; emergency care services; primary health care and rural health care services; national health accounts and planning; and project management (World Bank, 2014).

Romania was also a beneficiary of the EEA and Norway Grants programme for 2009–2014. Out of €15 200 million of financial assistance provided within this programme, over €22 million was allocated to the programme for public health initiatives (e.g. TB, HIV/AIDS, among others) (EEA Grants, 2015).

EU structural funds constitute an additional source of financing but, since there is no special programme on health, it is difficult to estimate the size of funds that have been used to finance projects in the health sector. Ministry of Health expenditure on projects financed from external non-reimbursable funds decreased from 2.4% of total expenditure in 2009 to 0.2% in 2013, while the



NHII's expenditure on such projects increased from 0.02% of total expenditure in 2011 to 0.35% in 2013 (NHII, 2014). The budgets include both external funds and the Romanian contribution to these projects.

### 3.6.3 Other sources of financing

#### **National Insurance Fund for Work Accidents and Occupational Diseases**

Established and regulated by Law 346/2002, the National Insurance Fund for Work Accidents and Occupational Diseases is funded by contributions paid by employers. This fund pays for medical care, transport, medical devices, rehabilitation and balneary treatments in health resorts. The fund also pays sickness allowances during temporary incapacity for insured persons. According to the Law, all employed persons, including apprentices, are covered by the insurance. However, persons working for certain national enterprises and ministries, such as the Ministry of National Defence, Ministry of Justice, Ministry of Internal Affairs, Romanian Intelligence Service, Foreign Intelligence Service, Security and Protection Service, and Special Telecommunications Service are insured against work accidents and occupational diseases by their own systems (Vlădescu et al., 2008b).

#### **Voluntary and charitable financing**

While charitable financing from foreign donor agencies has decreased (see section 3.6.2), there is an increasing number of initiatives of local (or local branches of) international companies funding health projects. These practices are further encouraged through legislation; for example, the Government Emergency Ordinance from March 2015 provides that at least 40% of donations made by state companies should be spent on health and education and no more than 20% on other domains. There are legislative proposals for introducing fiscal deductibility for any donations made by natural persons and for increasing the limit for fiscal deductibility for donations made by companies from 0.3% to 0.6% of turnover.

Furthermore, according to the Fiscal Code, since 2004, taxpayers have been allowed to allocate 2% of their income tax contributions to an NGO. In 2011, the Ministry of Public Finances reported that 1.6 million people (representing 25% of contributors) redirected 2% of their income tax (€26.5 million) to over 26 000 NGOs, including NGOs created by hospitals for mobilizing resources.

## 3.7 Payment mechanisms

### 3.7.1 Paying for health care services

#### **Public health care**

Providers of public health care services (see section 5.1) are paid through global budgets. They can also charge direct payments for the services provided (e.g. authorizations given by the DPHAs, water and air analyses done by the laboratories of the NIPH, etc.). Vaccinations are covered by the Ministry of Health through centralized procurement. The DPHAs ensure that the vaccines are distributed to the family medicine physicians and reimburse doctors for providing the service. Activities within preventive national health programmes are financed from the state budget, through the Ministry of Health. Drugs and medical supplies provided within the curative national health programmes are paid for by the NHIF.

#### **Primary health care**

Primary health care services are paid for by a mix of age-weighted capitation and FFS. Services covered by capitation payment include: emergency aid; monitoring of certain chronic diseases; family planning and healthy lifestyle counselling, etc. The split was 70% capitation and 30% FFS in 2010 and was changed to 50–50% in 2011 in order to increase the provision of certain services (see section 5.3).

The number of patients registered with a family medicine physician and the services provided by the family medicine physician are attributed a number of ‘points’, which determine both capitation (e.g. 7.2 points per enrolled adult; 11.2 points per enrolled child under 3 years of age) and FFS (e.g. a family planning visit is attributed 5.5 points; a newborn home visit is given 15 points, etc.), with each point having a specific financial value (see Vlădescu et al., 2008b). The total number of points is adjusted depending on the total number of registered patients and the provider’s professional degree, and additional points are awarded for working in a remote or deprived area. Newly established doctors, including those who have just completed their specialization, or who have newly moved from another locality or previously worked in a private capacity and have entered into a contract with a DHIH, receive a settling allowance during the first three months to support them while they enrol patients. This allowance is equivalent to the average salary of a doctor with a similar degree (increased by 100% for remote areas); moreover, an additional 1.5 multiple of this amount is paid for covering administrative expenditure, including the cost of employing nurses, and the cost of drugs and

consumables. When the physician list is over 2200 persons and the number of per capita points exceeds a certain threshold (18 700 per year), the number of points above this threshold is proportionally reduced: when the number of points is between 18 701–23 000, it is reduced by 25%; between 23 001–29 000 by 50%; and over 29 000 by 75%.

### **Specialized ambulatory care**

Specialized services provided in ambulatory settings (including outpatient departments), including dental services, and laboratory and imaging services, are paid on a FFS basis. They are attributed a specific number of points or a monetary value. The list of services, which gives their corresponding number of points or monetary value, is issued periodically by the Common Order on the implementation of the Framework Contract (see section 2.8.1). Providers must adhere to the thresholds with respect to the number of consultations, with a maximum number set at 28 per day on average, equating to 15 minutes per consultation, although different limits apply to different types of consultation (e.g. 30 minutes for psychiatry), and the number of points they can report daily (e.g. 150 points for psychiatry). The number of points is adjusted according to the conditions in which the providers work and their professional degree, similarly to primary health care providers (see above). They can also charge patients directly. Specialized services providers can enter into contracts with other entities for the provision of certain services, i.e. with the DPHAs for services performed under the national health programmes coordinated by the Ministry of Health (e.g. dialysis for patients with chronic kidney diseases), with universities for medical education or research, with local authorities or with private insurers. Similar payment mechanisms are applied for services provided under these contracts.

### **Hospital care**

Hospitals receive prospective payments consisting of a mix of payment methods. The total value of the contract signed by hospitals is composed of: DRGs, case payments, day tariffs, a lump sum dedicated to the curative national public health programmes (covering drugs and medical supplies) and FFS payment for services provided by outpatient departments (see above). DRGs were introduced through a series of successive projects undertaken between 1997 to 2002 by the National School of Public Health, Management and Professional Development (at that time called the Institute of Health Services Management), with financial support from USAID. The methodology, coding of clinical activities and tools for collecting clinical and cost data developed in the first phase were initially piloted in 10 hospitals (2001) and later in 23 hospitals (2002). In 2003, the DRG system was implemented at national level for continuous acute inpatient

cases and was introduced in the Framework Contract as one of the official payment methods for hospitals. Data collection and validation is performed by the NSPH-MPD. Initially, the USA classification system (HCFA DRG v.18) was used. In October 2005, the Ministry of Health procured the Australian classification system (AR-DRG v.5) through an agreement signed with the Australian Government, which allowed utilization of the system for a five-year period and as the starting point for the development of a Romanian system. In 2010, the Romanian system (RO-DRG) was created. Compared to the Australian DRG system, the RO-DRG has few new DRGs; it includes new definitions for co-morbidities and complications, as well as different grouping limits for some cases. The system is periodically updated (Scîntee & Vlădescu, 2015).

Until 2014, tariffs for day surgery and day care were calculated as a third or a fifth of the DRG tariff for the corresponding surgical or medical case and were limited to 25% or 30% of the sum contracted by the hospital for continuous inpatient care. Since 2014, day surgery and day care have been attributed specific tariffs per case or procedure, independent of DRG tariffs for inpatient care.

Apart from inpatient care, day care, day surgery and ambulatory specialty services, hospitals may also provide home care, laboratory and other diagnostic services. For these services, hospitals conclude separate contracts with the DHIHs. In addition, hospitals may receive funds for services provided within the preventive national health programmes (from the Ministry of Health and the DPHAs). These services are paid for by a dedicated budget, calculated in accordance with the proposed activities, such as information/education campaigns, case detection through active or passive testing, epidemiological surveys, preventive treatment (prophylaxis), treatment initiation for detected cases, consumables etc., and the volume of these activities (number of leaflets, tests, expected cases, treatments, etc.). In addition, hospitals can also charge patients directly (see section 3.4.1).

### **Emergency care**

Emergency services are paid from the state budget. The NHIF reimburses only a certain number of home visits for non-critical emergencies (paid on a FFS basis) and ambulance transportation costs that do not require medical assistance. Payment is according to a mix of negotiated tariff per call and negotiated tariff per kilometre distance, hour of flight or nautical mile.

**Long-term care**

Medical (non-acute) long-term care (LTC) services provided in hospital settings are paid for by the NHIF on a per diem basis (per inpatient day). For non-acute cases, hospitals are contracted according to a formula that takes into account the number of discharged cases, ALOS and tariff per inpatient day. The average length of stay for each medical specialty is specified in a Common Order of the NHIH's president and the Minister of Health on the implementation of the Framework Contract.

**Pharmaceutical care**

Pharmacies are reimbursed for the drugs sold by the DHIHs on the basis of a yearly contract signed under the provisions of the Framework Contract. Reimbursable pharmaceuticals (i.e. ambulatory care drugs) are listed on special lists, depending on the percentage of their cost covered by the NHIF. If the price is higher, the difference is covered by the patient (see section 2.8.4).

**Mental health care**

There is no dedicated mental health care funding except for a small sum made available by the Ministry of Health to finance the preventive National Programme of Mental Health and Prophylaxis of Psycho-Social Pathology. Each year, a curative national mental health programme is financed by the NHIH through a dedicated budget, in accordance with specific needs; for example, treatment of schizophrenia and depression since 2004 and treatment of drug addictions since 2014. Providers of mental health care services are reimbursed by the DHIHs in accordance with the provisions of the Framework Contract.

Provider payment mechanisms are summarized in Table 3.4.

**Table 3.4**  
Provider payment mechanisms

	Ministry of Health	Local health authority	DHIH	Cost sharing	Direct payments
<b>Public health service</b>	Budgets		C FFS		FFS
<b>Family medicine physicians</b>			50% C 50% FFS		FFS
<b>Ambulatory specialists</b>			FFS		FFS
<b>Other ambulatory provision*</b>			FFS		FFS
<b>Hospitals</b>					
Acute hospital care			DRG	Co-payment	FFS
Hospital outpatient			FFS		FFS
Day care			Case payment FFS		
National curative health programmes			Budgets		
National preventive health programmes	Budgets				
Long-term care			Day tariffs		Day tariffs
<b>Dentists</b>			FFS		FFS
<b>Pharmaceutical care</b>			X	Co-payment	X
<b>Social care</b>		S			

Source: Authors' own compilation.

Notes: \*For example, laboratory and medical imaging; C: capitation; DRG: diagnosis-related groups; FFS: fee-for-service; S: social sector (Ministry of Labour, Family, Social Protection and Elderly) and local budgets; X: cost-volume contracts. Budgets include: state budget via Ministry of Health, or Ministry of Health-DPHAs.

### 3.7.2 Paying health workers

Public health professionals, namely those working for the DPHAs, institutes of public health and others, are paid a salary set by the law, following consultation with trade unions. Salaries of public health professionals who are trained and work as medical doctors are usually higher than those of other professionals working in public health. However, salaries of public health professionals are very low compared to salaries outside the public health field, especially in the private sector.

Primary care physicians own their practices and derive income from that earned by their practices, through contracts with the DHIHs, other contracts or directly from patient charges (see section 3.4). Nurses employed in practices earn a salary. There are financial incentives for establishing new family medicine practices (see section 3.7.1).

Ambulatory care specialists are paid on a FFS basis by the DHIHs if they own their practice and enter into contracts with the DHIHs. Specialists working in ambulatory hospital units receive a salary, similarly to other physicians working in the hospital. Between 2009 and 2012, when there was a freeze on employing new staff in public institutions due to the economic crisis, hospitals used to sign service contracts with physicians working as independent professionals. Currently, hospitals are allowed to employ medical staff but, because of a shortage of human resources in the health sector, many hospitals continue to enter into service contracts with doctors employed as permanent staff by other hospitals. Limits on working hours are included under such contracts in accordance with EU regulations.

Managerial staff at all levels receive a management allowance. Nurses at all levels are paid a salary in both public and private health care sectors. Pharmacists are paid a salary within hospital pharmacies. Community pharmacies generate revenue through sales and pay their staff a salary. Salary negotiation on an individual basis takes place only in the private sector, where the salary level is guided by the market. In the public sector, salary negotiations occur at the national level between the trade union and government representatives and the level is set by a government decision. Salaries in the public sector have increased in recent years, but there remains a sense of dissatisfaction among health care professionals (see Vlădescu et al., 2008b).





## 4. Physical and human resources

In 2014, there were 527 hospitals in Romania, over two thirds of which were public. While the number of public hospitals has fallen in recent years, the number of private hospitals has seen the opposite trend. The former was mainly due to the closure of 67 poorly performing public hospitals in 2011, while the latter was largely driven by the change of payment for day surgery and day care cases in 2014. There is no officially available information regarding the condition of public hospital buildings; however, since the majority were built in the 1970s and 1980s, and have not been well maintained, it is likely that their technical condition is rather poor. Hospitals are evenly distributed across the national territory, but accessibility is limited in certain geographical areas, such as the Danube Delta and remote mountain regions, and in rural areas. The 2014–2020 Health Strategy envisages a restructuring of the regional hospital network with the goals of reducing the number of hospital facilities and providing integrated services in order to improve coordination of treatment.

The total number of hospital beds per 1000 population decreased from 7.9 in 1990 to 6.3 in 2013 (lower than the EU average of 11.7). This is in line with the government's efforts to reduce the number of hospital beds and strengthen the role of primary care, which was recently (in 2014) reinforced by the decision to subject the reimbursement of hospital services to limits on the total number of beds in the country. The reduction in the number of beds can mainly be attributed to the decrease in numbers of acute beds; the number of psychiatric beds per 1000 population fell less than the number of acute beds, while the number of beds in nursing and elderly homes increased. The average length of hospital stay in all hospitals decreased from 11.4 days in 1990 to 6.3 days in 2013 (similar to the EU average of 6.3 days), and the bed occupancy rate increased from 68% in 1990 to 84% in 2005, decreasing to 73% in 2013 (slightly below the EU average of 77%).

Family physicians and ambulatory care specialists pioneered the use of information and communication technology (ICT) in the health sector when electronic reporting requirements were introduced in 1999. Hospitals started to use electronic reporting with the introduction of the DRG system in 2006. More recently, in 2012, electronic prescribing was introduced for all reimbursed pharmaceuticals and is currently used across the country. Since May 2015, the National Health Insurance Card has been in use, which contains patient identification data (and may contain medical data, at the patient's request). An Electronic Health Record for patient data is currently being implemented.

Despite increasing trends, in 2013 the numbers of physicians and nurses per 100 000 people were relatively low in Romania: 248 doctors per 100 000 compared to 347 in the EU, and 581 nurses per 100 000 compared to 850 in the EU. In 2013, 23.5% of physicians specialized in family medicine, which is lower than in 2010 (29%) and at odds with efforts to strengthen the role of primary care.

The relatively low number of physicians and nurses has mainly been caused by high rates of external migration over the past decade, exacerbated by Romania's EU accession and the economic crisis. The most common reasons for leaving the country are: lower salaries compared to non-health professions; low social status; lack of performance recognition; limited career development opportunities; and wide discrepancies between the levels of required competencies and working conditions that do not enable the skills acquired to be applied in practice (for example, lack of equipment and supplies). Some measures that have been implemented in the past five years to halt the exodus of health workers (such as slight increases of wages for young doctors) have failed to make a difference. One of the negative effects of this trend is a shortage of some medical specialties and skills at the hospital level, especially in deprived regions.

## 4.1 Physical resources

### 4.1.1 Capital stock and investments

#### **Current capital stock**

In 2014, there were 527 hospitals in Romania. Of these, 366 were public hospitals (69% of the total) and 161 were private (31%) (see section 5.4 for information on the classification of public hospitals). While the number of public hospitals

decreased by 15% between 2008 and 2014, the number of private hospitals increased by over four times. Overall, the total number of hospitals increased by 15% between 2008 and 2014 (National Institute of Statistics, 2015a).

The decline in the number of public hospitals was driven, mainly, by the closure, in 2011, of 67 public hospitals due to their not fulfilling certain criteria (see Table 6.1) (Official Gazette, 2011). Local authorities as owners of these hospitals were recommended to transform the buildings into health care centres or nursing homes. However, since most of the buildings were in a very poor state, such transformations were deemed to be economically unviable. Following public and political pressure, many of the closed hospitals were reopened as hospitals or other health care facilities, e.g. LTC facilities, in the following years.

The largest increase in the number of private hospitals occurred from 2013 to 2014, following a change in the payment method for day surgery and day care cases in 2014 (see sections 3.7.1 and 5.4.1). The majority of new private hospitals are day care facilities that perform simple procedures. The number of private hospitals that report cases in the RO-DRG database rose from 73 in 2013 to 197 in 2014; out of these, 107 (54%) reported day cases only. The total number of hospitals reporting in the national DRG system in 2014 was 594 (197 private and 397 public). The difference between the total number of hospitals reported above and the number of hospitals reporting in the national DRG system is due to the fact that some health care facilities with beds (for example, among the health centres; see section 5.4), are not registered as hospitals but are paid like hospitals.

There is no officially available information regarding the condition of public hospital buildings. However, since the majority of public hospitals (over 90%) were built in the 1970s and 1980s (Ministry of Health, 2014) and have not been well maintained due to the scarcity of public resources, their technical condition is likely to be poor. Public hospitals are evenly distributed across the national territory, but are less easily accessible in certain geographical areas, such as the Danube Delta and remote mountain regions (see for example, Ciutan & Chiriac, 2009). Almost 90% of public hospitals are located in urban areas and because transport costs can be high, accessibility in rural areas is further compromised (see section 5.1). Private hospitals are also mainly located in larger cities, in particular in the more affluent regions.

The 2014–2020 Health Strategy envisages a restructuring of the regional hospital network, which would include designation of strategic hospitals, investment in their infrastructure (this was also included in the Budgetary Strategy for 2014–2016; see section 2.8.1), and the building of seven new

regional hospitals. It further envisages the transformation of local hospitals in small and medium-sized urban areas into units providing ambulatory care, day care or care for chronic patients. This would include reducing the number of hospital facilities (entire hospitals or departments within hospitals) and integrating selected facilities into new or refurbished regional hospitals, allowing for the closure of beds, streamlining of services and improvements in the coordination of treatment of complex cases requiring an integrated approach (Ministry of Health, 2014).

### **Investment funding**

Investment funding into specialized care facilities is mainly covered from the budget of the Ministry of Health and the budgets of local authorities, whereas investment at the primary care level into primary care practices has to be covered by the owners of those practices. Transfers are made according to a pre-approved yearly capital investment plan, which is developed by the Ministry of Health in accordance with the strategic investment plans and with the technically documented proposals made by the health facilities. For example, in line with the infrastructure development objective of the Health Sector Strategy for 2011–2013, in 2012 the Ministry of Health spent 361.9 million lei (€81 million) on the refurbishment of eight hospital buildings, plus 152 capital repair works and one feasibility study for the building of a regional hospital. In 2013 it spent 92.5 million lei (€21 million) on the refurbishment of nine hospital buildings and 47 capital repair works (Ministry of Health, 2013).

The second largest source of capital investment funding is from the World Bank and EU structural funds. For example, the Romania Health Sector Reform Project, conducted between 2005 and 2013 with funding from the World Bank, supported the development of feasibility studies, technical analyses and architectural designs for the refurbishment of 20 hospital maternity units, as well as the renovation of emergency departments in 17 hospitals (World Bank, 2014).

Other sources of investment funding include the NHIH and public–private partnerships (P-PPs), but these play a small role. Until 2014, it was not possible to use funding received for the reimbursement of service delivery through the NHIH for capital investment purposes but the legislation around this was amended in 2014 (see section 2.8.6). However, given the low levels of public funding, not many hospitals have been able to fund capital investments from this source.

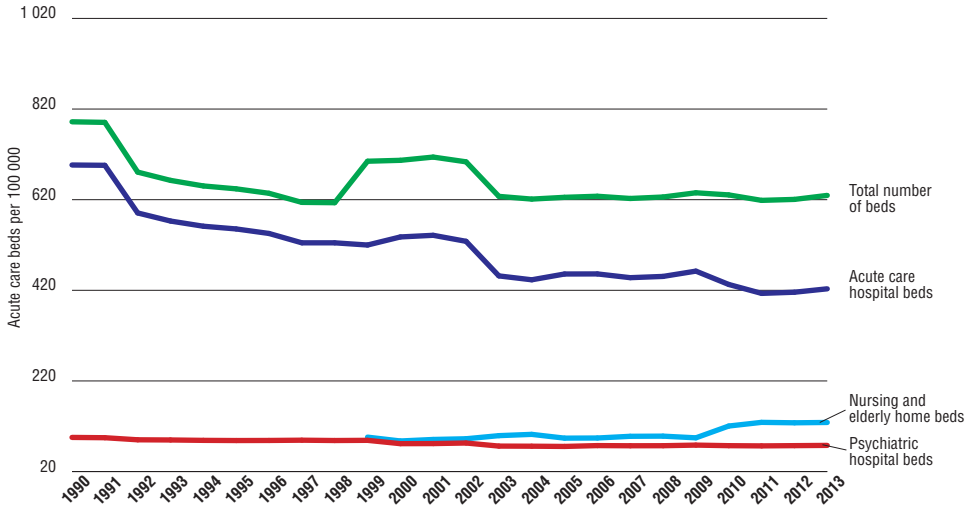
The Law on Public–Private Partnerships was issued in Romania in 2010 but P-PP initiatives have been obstructed by numerous limitations of this Law (Government of Romania, 2015) and technical problems with its implementation. For example, although the legislation provided that the selection and awarding of P-PP notices were to be published exclusively through a dedicated section of the electronic public procurement system, P-PP contracts were only included in this system in 2013. The central government and local authorities have expressed interest in using P-PPs for the building or refurbishment of hospitals and other health facilities but there are no public data on the number of partnerships that have been set up. A new draft law on public–private partnership was proposed in 2014 and is still under debate at the time of writing (December 2015) (for more detail, see DPIIS, 2015).

#### 4.1.2 Infrastructure

The total number of hospital beds per 1000 population decreased from 7.9 in 1990 to 6.3 in 2013 (Fig. 4.1). This is lower than the number of beds recorded in the majority of comparator countries, except for Bulgaria (also 6.3 in 2013), which range from 7.4 in Poland to 13.3 in Hungary, or the EU, at 11.7 (WHO Regional Office for Europe, 2016). This decreasing trend is in line with the government's efforts to decrease the number of hospital beds and strengthen the role of primary care (see sections 5.3 and 5.4). Important reductions took place in 1992 (from 7.9 to 6.8), when excess beds were cut in departments with low occupancy rates (mainly maternity wards, following the decrease in the birth rate after the abolition of the abortion ban; see section 1.4), and in 2003 and 2010 as a means to enhance efficiency (19 912 or 12% of beds were closed in 2003 and 8266 or 6% in 2010). Additional reductions occurred in 2011 in the context of the aforementioned closure of 67 hospitals (a reduction of 3%). Policies to reduce the number of hospital beds were further enforced by Decision no. 449 of 2014 on the approval of the National Plan for Hospital Beds for 2014–2016, which made the reimbursement of hospital services by the NHIH subject to limits on the total number of beds in Romania (everything above the total number will not be paid for from the health insurance funds). These limits are: 121 579 hospital beds in 2014 (there were 125 798 beds in 2013), 120 579 in 2015 and 119 579 in 2016 (Official Gazette, 2014b).

**Fig. 4.1**

Number of beds in acute hospitals, psychiatric hospitals and long-term care institutions in Romania, per 100 000 population, 1990–2013



Source: WHO Regional Office for Europe, 2016.

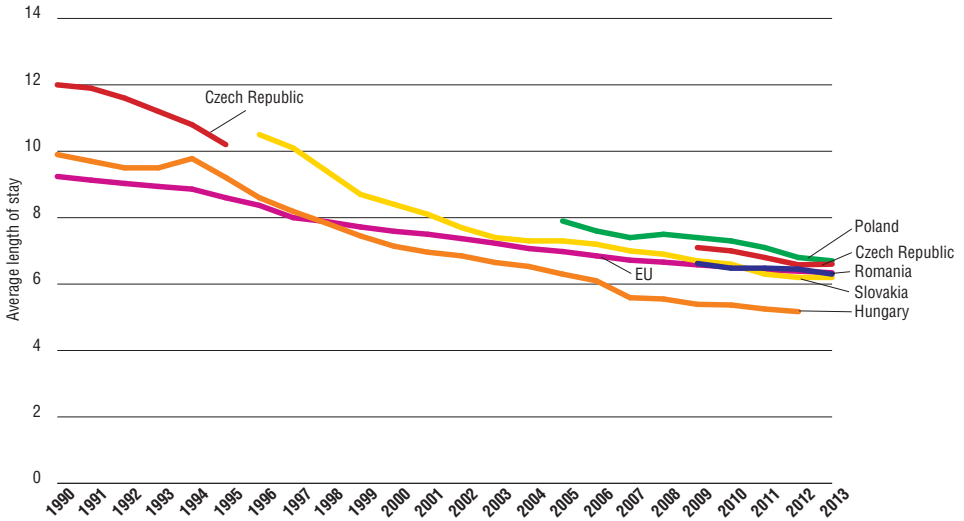
Note: The number of nursing and elderly home beds excludes beds in homes for the elderly; from 2010 it includes beds in medicosocial units and beds in social care facilities for disabled adult people; until 2010, data were collected only for entities that provide medical and social care for adults with disabilities.

Much of the observed decline in hospital beds was in the acute care sector, with beds falling by almost 60% between 1990 and 2013, from 7 to 4.2 per 1000 population. The 2013 figure was the same as in Slovakia and Poland (4.2 and 4.3, respectively), but higher than Hungary (4) and the EU average (3.6) and lower than the Czech Republic (4.4) and Bulgaria (5.2) (Fig. 4.3). The number of psychiatric beds per 1000 population fell by almost 20%, to 0.8 in 2013, which was the same as in Slovakia but higher than in Poland (0.6), Bulgaria (0.7) and the EU average (0.7) and lower than in Hungary (0.9) and the Czech Republic (1). The number of beds in nursing and elderly residential care facilities increased from 0.96 per 1000 population in 1999 to 1.3 in 2013. Comparisons with other countries are difficult due to differences in the definitions of nursing and elderly home beds (WHO Regional Office for Europe, 2016).

The ALOS in acute care hospitals was 6.3 days in 2013 (down from 6.6 days in 2009) (Fig. 4.2a). This is similar to Slovakia (6.2) and the EU average (6.3) and higher than Hungary (5.2 (2012)), the Czech Republic (6.6) and Poland (6.7) (WHO Regional Office for Europe, 2016).

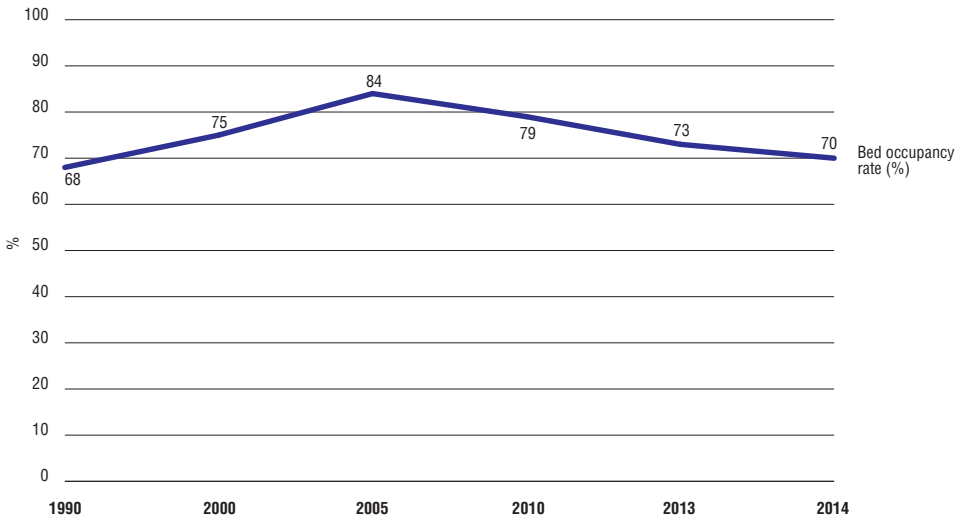
**Fig. 4.2**  
Operating indicators for acute hospitals in Romania, 1990–2013

**a) Average length of hospital stay in acute care hospitals in Romania and comparator countries**



Source: WHO Regional Office for Europe, 2016.

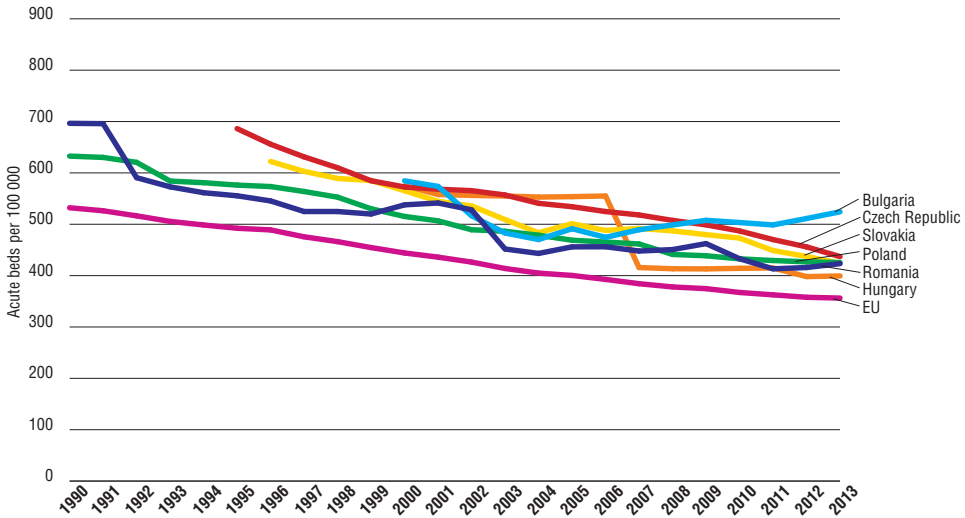
**b) Bed occupancy rate in Romania**



Source: National Centre for Health Statistics and Information, 2015.

**Fig. 4.3**

Acute care hospital beds per 100 000 population in Romania and selected countries, 1990–2013



Source: WHO Regional Office for Europe, 2016.

The bed occupancy rate increased from 68% in 1990 to 84% in 2005, but then fell to 70% in 2014 (Fig. 4.2b). Some of the factors that are likely to have contributed to this decline were the introduction, in 2010, of ceilings in the Framework Contract on the number of ambulatory care consultations, which are often followed by a referral to a hospital at the request of patients, and the decrease in the number of doctors (see section 4.2). The bed occupancy rate in Romania in 2013 was higher than in Slovakia (67%) and Hungary (69% (2012)), but lower than the Czech Republic (74%) and the EU average of 77% in 2012 (WHO Regional Office for Europe, 2016).

### 4.1.3 Medical equipment

Medical equipment is usually funded by the Ministry of Health. It can also be financed by local authorities, from donations and from externally funded projects. Since 2014, hospitals have also been allowed to purchase medical equipment from the income they receive under health service contracts with the NHIH (see also sections 2.8.6 and 4.1.1).



There are no publicly accessible national data on the types and amount of medical equipment available in health care facilities and anecdotal evidence suggests there are large variations in the distribution of medical equipment across hospitals and geographical regions, and that the availability does not reflect the level of need.

Data that are available provide insights into aggregate numbers of medical equipment only. According to Eurostat data, between 2007 and 2013, the number of magnetic resonance imaging (MRI) units in Romania increased from 24 to 87 and the number of computed tomography (CT) scanners from 72 to 194. In 2013, there were 43.5 MRI units per 1000 population, which was higher than in Hungary, at 30.3, but lower than in Poland (64.4), Slovakia (66.5) and the Czech Republic (74.2). Similarly, the number of CT scanners was, at 97.1, higher than in Hungary (78.8) and lower than in the Czech Republic (150.3), Slovakia (153.3) and Poland (171.7) (Eurostat, 2016). In terms of utilization, in 2012, there were 1.7 MRI scans per 1000 population, compared to an EU average of 46.5 (the average excludes Italy and Sweden) and 13 CT scans per 1000 population compared to 98 in the EU on average (the average excludes Estonia, Italy and Sweden) (OECD, 2014a). There are no data on the number of positron emission tomography (PET) scanners in Romania.

**Table 4.1**

Items of functioning diagnostic imaging technologies (MRI units, CT scanners) per 1000 population in Romania, 2007 and 2013

Item	Number		Per 1000 population (in 2013)
	2007	2013	
MRI units	24	87	43.54
CT scanners	72	194	97.08

Source: Eurostat, 2016.

#### 4.1.4 Information technology

Data from the National Institute of Statistics show that, in 2014, some 54.4% of households in Romania had internet access. Access rates are higher in urban areas (70.9%) and vary across geographic areas, from 46.1% in the south of Romania to 76.7% in Bucharest (National Institute of Statistics, 2014a). Also in 2014, 61% of Romanians reported having ever used the internet, a figure that is low compared to the average among EU countries, at 82% (Eurostat, 2016). The share of internet users is lower when only daily users are considered, at 32% in Romania compared to 65% in the EU (2014 data; Eurostat, 2016). Furthermore,

27% of Romanians aged between 16 and 74 used the internet for seeking health-related information (injury, disease, nutrition, improving health, etc.) compared to an average of 44% among EU countries.

Electronic reporting requirements were first introduced in the ambulatory care sector; since 1999, family medicine physicians and ambulatory care specialists have to report to the NHIH on the services provided to their patients in order to get reimbursed. Hospitals started to use electronic reporting with the introduction of the DRG system in 2006 (see section 3.7.1). In 2008, the NHIH implemented the Integrated Unique Informatics System (SIUI) (see section 2.7.1), which harmonized existing electronic reporting systems. SIUI is used by all providers for the reporting of services performed under the contract with the DHIHs. It also collects data on the insured population. In 2012, electronic prescribing was introduced for all reimbursed pharmaceuticals and is currently used across the country, and on 1 May 2015 the National Health Insurance Card was established as a tool for validating service provision. The Card contains patient identification data and may contain medical data upon a patient's request. Patients' health records are currently kept in paper form but an electronic health record is currently being implemented within SIUI. Electronic appointment booking systems are rarely used, typically in some private ambulatory care facilities.

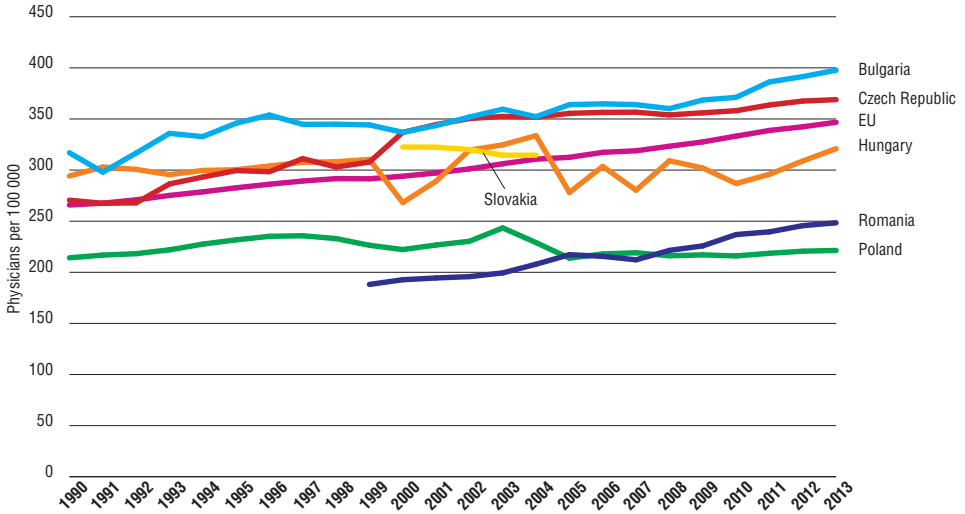
## 4.2 Human resources

### 4.2.1 Health workforce trends

Romania has relatively low numbers of physicians and nurses, at 248 physicians and 581 nurses per 100 000 population in 2013, compared to most comparator countries and the EU average (Figs. 4.4 and 4.5), and compared to other countries in central and south-eastern Europe (Fig. 4.6). This was despite a steady increase since 2000, of about 20% among physicians and just under 10% among nurses (Table 4.2). The number of pharmacists and dentists almost doubled during the same period (Table 4.2) and, in 2013, the number of dentists per 100 000 population was, at 67, almost the same as in the EU (67.3) (Fig. 4.7). The number of pharmacists remained lower, at 76.3 per 100 000 population in 2013, compared to an EU average of 82.8, although similar to Hungary (76.1) (Fig. 4.8). There is no information on the number of managerial staff working in the health care system.

**Fig. 4.4**

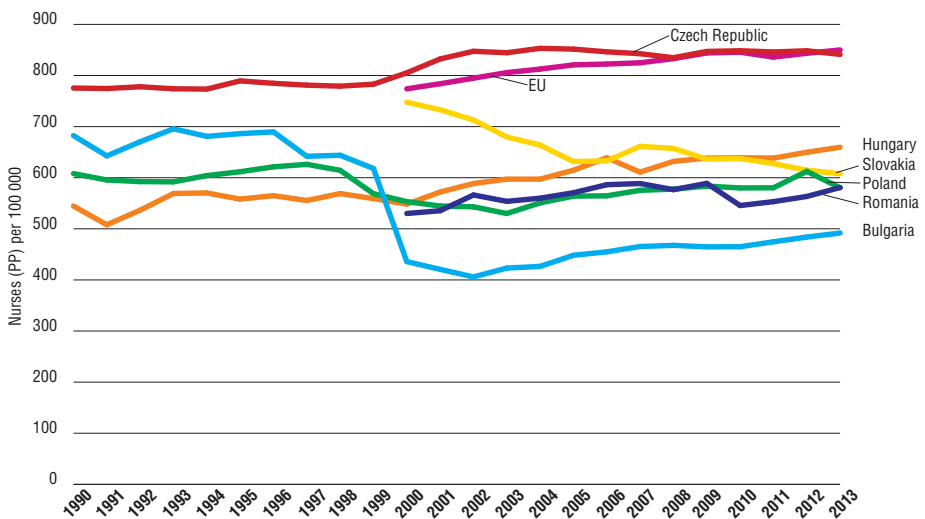
Number of physicians per 100 000 population in Romania and selected countries, 1990–2013



Source: WHO Regional Office for Europe, 2016.

**Fig. 4.5**

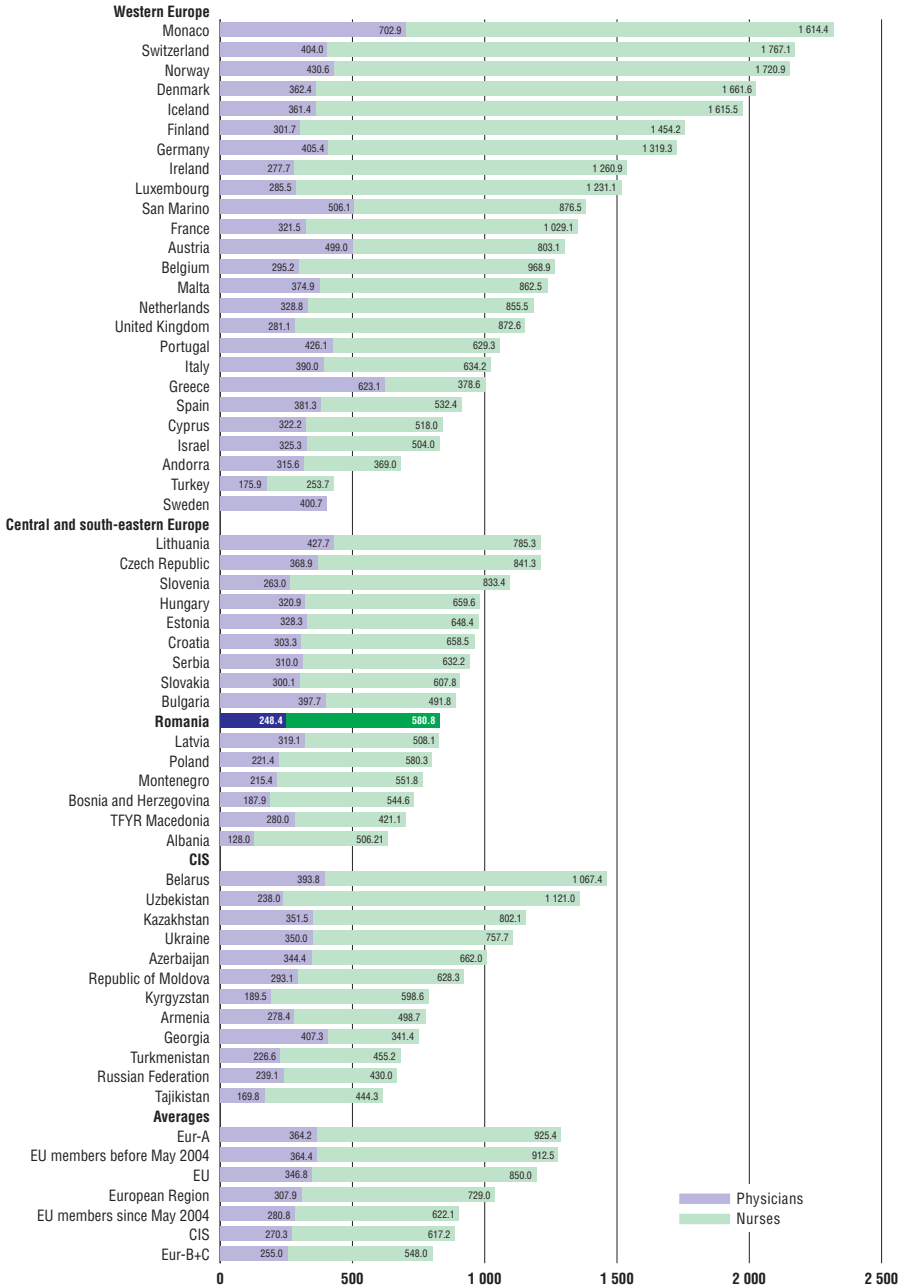
Number of nurses per 100 000 population in Romania and selected countries, 1990–2013



Source: WHO Regional Office for Europe, 2016.

**Fig. 4.6**

Number of physicians and nurses per 100 000 population in the WHO European Region, 2013



Source: WHO Regional Office for Europe, 2016.

Notes: European Region: the 53 countries in the WHO European Region; Eur-A: 27 countries in the WHO European Region with very low child and adult mortality (see WHO definition); Eur-B+C: 26 countries in the WHO European Region with higher levels of mortality (see WHO definition); CIS = Commonwealth of Independent States; TFYR Macedonia = The former Yugoslav Republic of Macedonia.

**Table 4.2**

Practising health workers in Romania per 100 000 population, 1990–2013  
(selected years)

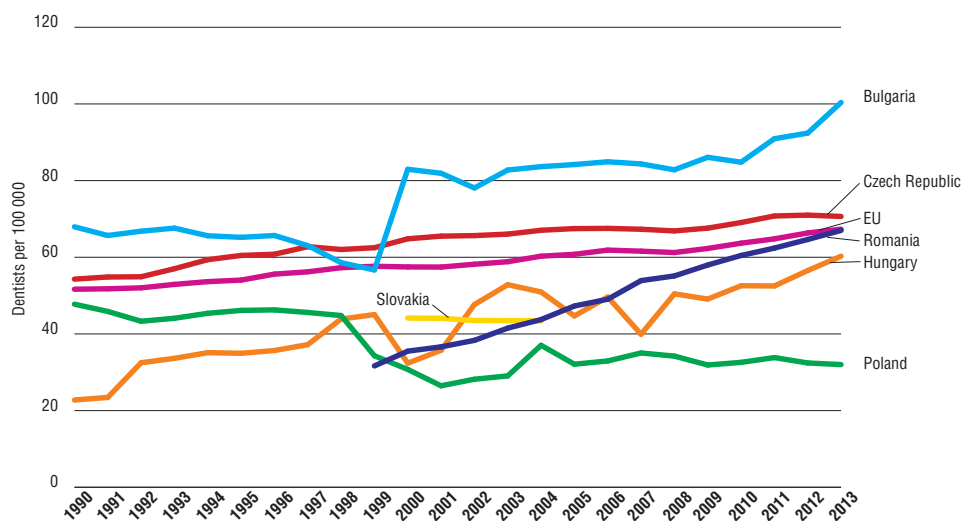
	1990	1995	2000	2005	2010	2011	2012	2013
All physicians (excluding dentists) <sup>a</sup>	n/a	n/a	192.7	217.2	236.9	239.5	245.6	248.4
Family medicine physicians <sup>b</sup>	n/a	n/a	n/a	n/a	67.7	68.4	64.6	59.9
Specialist physicians (medical group) <sup>c</sup>	n/a	21.3 <sup>d</sup>	n/a	37.7	80.4	83.2	88.5	92.2
Specialist physicians (surgical group)	n/a	16.7 <sup>d</sup>	n/a	20.5	39.6	41.6	44.6	46.8
Specialist physicians (obstetric and gynaecological group)	n/a	7.4 <sup>d</sup>	n/a	8.9	10.4	10.7	11.2	11.2
Specialist physicians (paediatric group)	n/a	10.0 <sup>d</sup>	n/a	9.2	10.7	10.7	11.3	11.5
Nurses	n/a	n/a	530.0	570.6	545.6	553.2	563.3	581.0
Midwives	50.5	45.8	31.1	22.7	19.4	18.2	17.4	16.3
Dentists	n/a	n/a	35.5	47.3	60.5	62.4	64.6	67.0
Pharmacists	n/a	n/a	31.3	42.8	63.2	67.9	72.1	76.3

Source: WHO Regional Office for Europe, 2016.

Notes: Health workers in the private sector have been included in the figures from 1997 onwards (but the private sector had little impact on health sector statistics before 2010); since 2010, data refer to practising physicians; <sup>a</sup>Includes, among others, interns and resident physicians and foreign physicians licensed to practise and actively practising in the country (for more information, see the WHO Regional Office for Europe (2016) definition); <sup>b</sup>Includes specialists in family medicine and residents specializing in family medicine; other generalist (non-specialist) medical practitioners and paediatricians are excluded; <sup>c</sup>The following specializations are excluded: surgery, gynaecology and obstetrics, paediatrics, psychiatry and general practice; <sup>d</sup>1994 data; n/a = not available.

**Fig. 4.7**

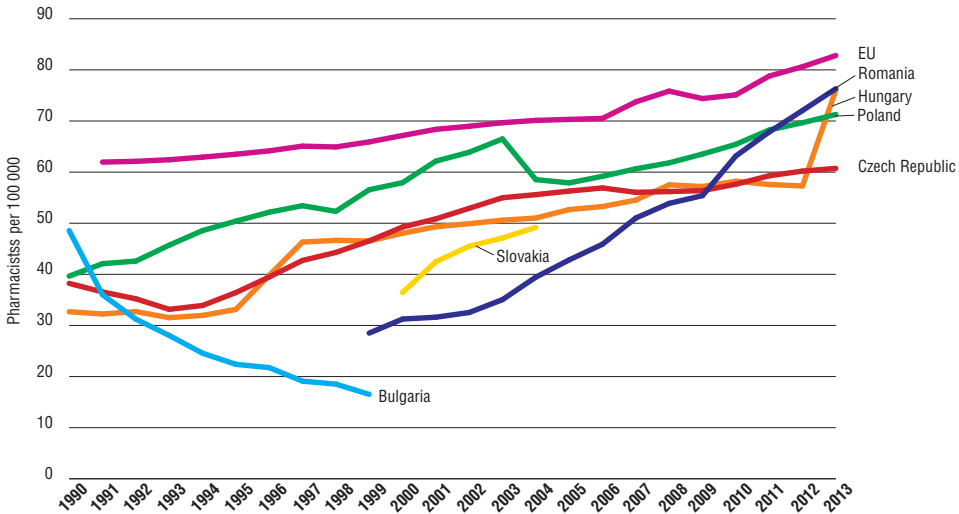
Number of dentists per 100 000 population in Romania and selected countries, 1990–2013



Source: WHO Regional Office for Europe, 2016.

**Fig. 4.8**

Number of pharmacists per 100 000 population in Romania and selected countries, 1990–2013



Source: WHO Regional Office for Europe, 2016.

Since 1997, all doctors have been required to undertake specialist training (see section 4.2.3) and, in 2013, 23.5% of physicians working in the Romanian health system were family medicine physicians (Table 4.2). This is somewhat lower than in 2010, when family medicine physicians accounted for 29% of all practising physicians. It is difficult to be certain about how many doctors work in the ambulatory care sector compared to the hospital sector, or work in the public sector compared to the private sector. This is because doctors working in hospitals can also practise in ambulatory care settings and those working in the public sector may practise in the private sector after hours. In 2013, 49.8% of practising doctors were hospital based (WHO Regional Office for Europe, 2016).

#### 4.2.2 Professional mobility of health workers

Over the last decade, Romania has seen a comparatively high number of the health workforce migrating abroad, although there is a lack of precise data on the number and type of health workers moving abroad. According to official statistics from receiving countries, the number of Romanian medical doctors in pre-2004 EU Member States increased from 977 in 2003 to 2433 in 2007 (the year of Romania's EU accession) (Buchan et al., 2014). Unfortunately,

there are no accurate statistics. The majority of Romanian doctors who have migrated work in Germany, Italy and the United Kingdom, and countries such as France and Belgium report Romanians to be the most numerous group among health professionals from the Member States that have joined the EU since 2004 (Buchan et al., 2014). The number of Romanian nurses in pre-2004 EU countries rose from 811 in 2003 to 8481 in 2007, with the majority located in Italy (7670 nurses) (Buchan et al., 2014). Romania's EU accession in 2007 amplified and accelerated the trend of outward migration of doctors and nurses.

The most common reasons for leaving the country include low salaries compared to non-health professions in Romania, low levels of satisfaction with social status and lack of recognition, limited career development opportunities, and discrepancies between the level of competencies required and the working conditions (equipment, access to consumables, drugs and modern diagnostic tests) (Wisnar et al., 2011). As a consequence of this emigration of health care workers, there is a shortage of some medical specialties and skills at the hospital level in Romania, especially in deprived regions. Even large hospitals experience difficulties in filling vacant positions and these often remain unfilled due to their low attractiveness compared to similar jobs abroad as well as the lack of effective retention policies. Some measures that have been implemented since 2010 to halt the exodus of health workers, such as an increase in wages for young doctors, have not been effective. The problem of filling vacant posts was further exacerbated by the government-imposed freeze on all new public sector recruitment introduced in 2010 in the wake of the economic crisis.

#### **4.2.3 Training of health workers**

Medical education in Romania takes six years (five years for dentists). The yearly number of medical school graduates in Romania has been stable since 2010, at around 3700 (Olsavszky et al., 2010). After graduation, physicians have to pass an exam in order to enter specialty training. The duration of specialty training is five years for most specialties but may be longer (e.g. six years for neurosurgery), while specialty training in family medicine takes three years, and public health and health management four years. From 2009, undergraduates pursuing a specialist qualification in oral and maxillofacial surgery have to obtain two licences to practise, one in medicine and one in dentistry. The length of the specialization for dentistry is five years. Historically, it was not mandatory for medical graduates who wished to practice as family medicine physicians to undertake further specialist training. However, with the introduction of family

medicine as a specialty in 1997, all new graduates who wish to practise family medicine have to undertake specialist training. In 2010, there were 52 medical recognized specialities in Romania (two for dentists) (Olsavszky et al., 2010).

Nursing training takes three years in nursing schools (vocational schools) after completion of high school or four years in university colleges. Nurses can specialize in several disciplines: laboratory, public health and hygiene, balneo-physiotherapy, radiology, nutrition. Specialization takes one year.

Continuing professional development is required for both medical doctors (including dentists) and nurses. The professional associations set the educational standards and the criteria for periodical accreditation of their respective professions. Continuing professional development is validated every five years through the accumulation of a sufficient number of continuous education points. If the minimum number of points has not been achieved, the doctor or nurse must pass revalidation exams.

#### **4.2.4 Doctors' career paths**

The criteria for employment and professional promotion in terms of obtaining a higher professional title (e.g. senior doctor) for physicians working in the public sector are set at the national level by the Ministry of Health, which also organizes exams for the professional promotion of medical doctors. For each specialty, there are several areas in which a physician can obtain a competency (called *Atestat*), which relate to medical or non-medical skills in a particular area (e.g. palliative care or management), the use of particular technologies (e.g. bronchial endoscopy), or the ability to perform particular interventions (e.g. gynaecological laparoscopic surgery). To obtain a competency, the physician must undergo training and pass an exam. To become the head of department or a ward, a physician must obtain the competency in health care services management and pass a selection process. In order to become a hospital manager, a doctor or other professional (e.g. a person with non-medical education) must complete a course in health care management. There is little movement of doctors across public hospitals as hospitals have little influence on the establishment of new departments or changing the number of physicians, which both require approval by the Ministry of Health.

Health professionals working in public health administration at central (Ministry of Health, NHIH) or local levels (DPHAs, DHIHs) have the status of civil servants. This means they are not permitted to receive an income from other forms of employment (e.g. from practising medicine), with the exception



of teaching and research. Those trained in medicine who have not practised for five years lose recognition of their professional competence by the College of Physicians.

#### **4.2.5 Other health care workers' career paths**

The criteria for employment and the career advance of nurses are also set by the Ministry of Health, which, in collaboration with the Order of Nurses and Midwives, organizes exams for the professional promotion of nurses. For a nurse, the prerequisite for becoming a head of department or of a ward, or the care director of a hospital, is the completion of a course in hospital management.



## 5. Provision of services

**T**he provision of public health care services in Romania is coordinated by the Ministry of Health and mainly overseen by the NIPH and delivered by the DPHAs, and other specialized institutions, plus some carried out as part of health care services provision (mainly by family medicine physicians). Some identified weaknesses in the provision of public health care services include: environmental risk monitoring, such as gaps in the monitoring of drinking water and bathing basins; communicable disease surveillance, such as underreporting of nosocomial infections in hospitals; and health promotion and disease prevention, with prevention weak in most national health programmes on specific conditions or issues, such as cancer or mother and child health.

Primary care is provided by family medicine physicians, mainly in solo practices, under contracts with the DHIHs. Family medicine physicians have a gatekeeping role, although direct access to a specialist is possible for certain specific conditions. Family medicine physicians are not required to assure provision of primary care out of hours, at weekends or during public holidays, but they do on-duty calls in continuity care centres. Patients often rely on ambulance services and/or hospital emergency departments if they need medical assistance, including non-urgent care and within regular office hours. Although strengthening of primary care has been on the policy agenda since 1990, primary health care services remain underused and there is overutilization of hospital services. There are inequities in access to primary care, with access poorer in rural areas. A number of specific measures have been implemented in recent years to increase access to primary care services in rural areas, but there is no evidence of their effectiveness.

Specialized ambulatory care is provided through a network of hospital outpatient departments and polyclinics, specialized medical centres, centres for diagnosis and treatment, and individual specialist physician offices under contract with the DHIHs. Specialized physicians who work in ambulatory care generally divide their time between the public and private sectors.

Inpatient care is provided by a large hospital network, with hospitals varying in terms of size, competencies and catchment areas. Similar to primary care, the accessibility of ambulatory specialized care and inpatient care is poorer in rural areas compared to urban areas. Day care is provided in hospitals and health care centres under contract with the DHIHs. The most frequent health care services provided on a day care basis in Romania include hypertension and diabetes monitoring, radiotherapy, monitoring of HIV/AIDS patients and endoscopy. Day care services expanded considerably in 2014, following an amendment of legislation that enabled a wider range of services to be provided as day care and a change in the payment for day surgery and day care, although there remains scope for further increasing the provision of day care in Romania.

At the hospital level, emergency care is provided by hospital emergency units. These units can be accessed directly through self-referral or by ambulance. A high percentage of ambulance call-outs are resolved at the patient's home and do not require admission to hospital, indicating overuse of ambulance services and shortcomings in primary care.

While it has increased over the years, pharmaceutical consumption in Romania remains low compared to the levels observed in other EU Member States. There is concern about the underuse of generics in Romania, which has been attributed to the claw-back mechanism, price-setting procedures and lack of incentives to encourage the use of generics. There are also concerns that the lower prices of some medicines in Romania compared to other EU Member States may lead to parallel exports and consequent shortages in Romania.

Rehabilitation care is provided in ambulatory and inpatient settings, but access to such care is not adequate and there are long waiting lists. Access to LTC and palliative care is also poor, and Romania has one of the lowest residential LTC coverage rates in Europe, with only 7.9% of the needs for palliative care covered in 2014. Mental health care is still largely provided in institutional settings and a shift to community settings has yet to be achieved.

## 5.1 Public health

Public health is defined by Law 95/2006 as “the organized effort of the society towards the protection and promotion of population health” (Title I, Chapter I, Art. 2(1)). Public health services include health promotion, disease prevention and improving quality of life, and comprise the following activities: immunization; control and surveillance of diseases and risk factors; monitoring population health and health determinants; measuring efficiency and effectiveness of health care; assessment of population needs; health promotion and health education campaigns; occupational health; and environmental health, among others. The main strategic document in the area of public health is the National Health Strategy 2014–2020, which includes public health as one of the three main priority areas (see section 2.5 for the general objectives in the field of public health).

The provision of public health services is coordinated by the Ministry of Health, which is also responsible for the strategic planning and organization of public health services. The NIPH provides technical assistance, including the provision of data, expertise and training, on public health and related matters to the Ministry of Health and other ministries, such as the Ministry of Labour, Family, Social Protection and Elderly, Ministry of Environment, Waters and Forests, and ministries with their own health networks, such as the Ministry of Internal Affairs, Ministry of National Defence (Fig. 2.1) and other institutions with responsibilities in public health. It comprises four national specialized centres: the National Centre for Environmental Monitoring of Risks in the Community, the National Centre for Communicable Diseases Surveillance and Control (NCCDSC), the National Centre for Methodological Coordination and Information on Occupational Diseases and the National Centre for Health Status Evaluation and Health Promotion, as well as six regional public health centres, which are located in Bucharest, Cluj, Iași, Sibiu, Târgu Mureș and Timișoara, and function as the regional branches of the NIPH. The regional centres have mainly methodological and technical roles.

The 42 DPHAs, which represent the Ministry of Health at the local level (see section 2.3), are responsible for the provision of public health services locally, which include: monitoring the health of the population and health determinants; identification of public health needs of communities; performing controls of health institutions; coordinating the implementation of national public health programmes at the local level; carrying out sanitary inspection and health promotion activities, etc.

Public health activities are also performed as part of medical care services contracted by the DHIHs. They are mainly carried out by family medicine physicians and include: early detection of diseases through check-ups; family planning; antenatal and postnatal care; health education and preventive activities. Family medicine physicians also perform special services under the national public health programmes (e.g. immunizations), which are contracted by the DPHAs. For example, family medicine physicians participate in the screening programme for cervical cancer.

### **Environmental risks monitoring**

The National Centre for Environmental Monitoring of Risks in the Community under the NIPH is responsible for the supervision and monitoring of environmental health. The Centre is divided into specialized departments that are in charge of supervision and monitoring in their respective areas of competence: food and nutrition, occupational health and radiation hygiene. The Centre also coordinates the National Programme of Monitoring Environmental and Occupational Health Determinants implemented by the DPHAs. The NIPH publishes yearly reports on the environmental community risk monitoring.

There are some concerns about the effectiveness of environmental health surveillance and monitoring; for example, in 2014, only about half (48%) of the 50 monitored natural bathing basins were found to be in compliance with the legislative provisions and only 40% of drinking water distribution systems had complied with EC norms; about 5% of drinking water distribution systems were not monitored (NIPH, 2014). There is a comparatively high incidence of diseases that can be attributed to contaminated water in public fountains; for example, in 2010, the incidence of hepatitis A was 16.3 cases per 100 000 population, compared to 2.7 in the EU (WHO Regional Office for Europe, 2016). This can be viewed as a reflection of the low level of preventive measures taken by the DPHAs and family medicine physicians, especially in rural areas, where most communities do not have a sewage system and people obtain drinking water from public fountains (NIPH, 2014).

### **Communicable disease surveillance, control and notification**

The NCCDSC under the NIPH coordinates surveillance of communicable diseases in the country and is the coordinating competent body that interacts with the European Centre for Disease Prevention and Control (ECDC). The legislation on communicable diseases has been harmonized with EU standards. The reporting system covers over 110 communicable diseases, separated into three categories: diseases requiring immediate nominal notification by phone; diseases with nominal notification within five days after detection; and diseases

with numerical periodic reporting (weekly, monthly, quarterly and annual). Any doctor who diagnoses a patient with a communicable disease included in the reporting system must report it. In addition, there are networks for the surveillance and control of certain diseases, coordinated by institutions, such as the Institute for Infectious Diseases “Matei Balș” for HIV/AIDS and the Institute of Pneumology “Marius Nasta” for TB, but data collected are also sent to the NCCDSC.

Overall, surveillance of communicable diseases is considered to be well organized and regulated. An assessment by WHO/Europe in 2001 highlighted a number of shortcomings in the epidemiological surveillance system for communicable diseases, identifying a lack of procedures and of microbiology laboratory capacity, as well as some overlapping responsibilities. This was improved in 2003 and 2004 as part of the PHARE programme of financial assistance pre-EU accession, which included enhancing technical capacity, conducting specialized training of epidemiologists and microbiologists, and establishing a coordinating body for the epidemiological surveillance network (Stevens, 2004).

However, there remain challenges in the surveillance of nosocomial infections, which are underreported by hospitals. This is mainly because, in the past, nosocomial infections were included in the individual performance indicators of hospital managers and the latter therefore did not report all cases to avoid being penalized. While the penalties have been abolished, the rate of hospital infections remains included among the indicators against which the performance of hospital managers is evaluated, thus there is an incentive to underreport infection. Efforts are being made to increase awareness of the importance of reporting nosocomial infections, monitoring antimicrobial resistance and reducing their impact. At the time of writing, the Strategic Plan for Prevention and Fighting of Nosocomial Infections 2016–2018, planned that the following measures would be taken in the 2016–2018 period: excluding hospital infection rates from the list of performance indicators; reducing the false reporting of microbiological diagnosis indicators; employing epidemiologists and infectious diseases specialists in all hospitals for antibiotic stewardship; and training hospital managers on the importance of surveillance and reporting.

### **Occupational health services**

Occupational health is regulated mainly by the Law 319/2006 on Occupational Health and Safety. The Ministry of Labour, Family, Social Protection and Elderly, in collaboration with the Ministry of Health, is responsible for elaborating the national policy and strategy on occupational health and safety.

The Ministry of Health is responsible for coordinating occupational health services at the national level, surveillance of occupational health through the DPHAs, provision of training and continuing education in occupational health, coordinating research activities, the notification and reporting of occupational diseases, issuing authorizations for occupational health offices and controlling the quality of occupational health services.

According to the legislation, each employer should assure occupational health services such as periodic medical check-ups and prophylactic health care services for their employees, although the extent to which this is being implemented is not regularly monitored. To that end, employers enter into contracts with private occupational health offices or employ an in-house occupational health specialist. The list of prophylactic health care services that employers have to assure for their employees is established by a government decision. If occupational health is perceived to be a public health problem in a given district, occupational health and professional diseases wards must be established within the district hospitals. This is done at the initiative of the DPHAs.

The DPHAs are notified about the incidence of occupational diseases and report on this monthly to the NIPH's National Centre for Methodological Coordination and Information on Occupational Diseases. The NIPH also provides technical assistance on occupational health to ministries, DHPAs, employers, etc. and carries out research and assessment surveys on occupational risks.

The National Institute for Research and Development in Occupational Health "Alexandru Darabont" conducts scientific research and methodological activities in the area of occupational health and safety. It is also in charge of training and retraining of specialists in health and safety at work and provides technical assistance and consultancy to companies, for example on meeting the provisions of the legislation in force.

### **Surveillance of population health and well-being**

The National Centre for Health Status Evaluation and Health Promotion under the NIPH is responsible for the surveillance of population health and well-being. Population health is evaluated mainly on the basis of general public health statistics published yearly and statistical bulletins on specific aspects of population health published periodically by the National Centre of Public Health Statistics and Informatics. Some aspects of population health are assessed using special surveys, such as surveys of self-perceived population health and health determinants undertaken by the National Institute of Statistics



or special projects and initiatives. Examples include the 2012 National Report on Oral Health in Children and Young People and the 2013 Evaluation of the Nutrition Status in 6–9-Year-Old Children within the European Childhood Obesity Surveillance Initiative. Specific organizations, such as the Institute for Infectious Diseases “Matei Balș” for HIV/AIDS and Institute of Pneumology “Marius Nasta” for TB, also undertake assessments. Since 2007, information on cancer patients has been recorded in eight regional registers, coordinated by a National Committee. Through this initiative, the Ministry of Health intended to align Romanian cancer databases with international (WHO, International Agency for Research on Cancer) and European Network of Cancer Registries (ENCR) standards and recommendations.

### **Health promotion and education and disease prevention**

The NIPH is responsible for health promotion and education. Education and information campaigns are also conducted by NGOs as part of specific projects, for example by the Romanian Association for Health Promotion, the Alliance for Fighting Alcoholism and Addictions, the Romanian Association for Education in Diabetes, the Anti AIDS Romanian Association and the Romanian Alliance for Suicide Prevention. There is recognition that the performance of preventive services is “suboptimal” (Ministry of Health, 2014, p.28) and, in response, the National Health Strategy 2014–2020 (see section 2.5) proposes measures aimed at improving health education for certain vulnerable population groups and particular areas, such as maternal and child health, reproductive health, communicable diseases and healthy lifestyles.

The NIPH also coordinates the development, implementation, monitoring and evaluation of most of the national health programmes financed by the Ministry of Health. The following national health programmes, all renewed on an annual basis, were in place for the 2015–2016 period:

- National Programme for Immunization
- National Programme for Surveillance and Control of Communicable Diseases
- National Programme for Prevention, Surveillance and Control of HIV
- National Programme for Prevention, Surveillance and Control of Tuberculosis
- National Programme for Surveillance and Control of Nosocomial Infections and Monitoring of Antibiotics Use and Antibiotics Resistance
- National Programme of Monitoring Environmental and Occupational Health Determinants

- National Programme for Transfusion Safety
- National Programme for Cancer Screening
- National Programme for Mental Health and Prophylaxis of Psychiatry Pathology
- National Programme for Early Detection of Endocrine Disorders
- National Programme for Mother and Child Health
- National Programme for Health Status Evaluation, Health Promotion and Health Education
- National Programme for Management of National Registries of Chronic Patients
- National Programme for Dietetic Treatment of Rare Diseases
- National Programme for Transplants.

The preventive component of many of these programmes is, however, seen to be weak; for example, the National Programme for Health Status Evaluation, Health Promotion and Health Education includes a subprogramme on the prevention and control of tobacco consumption but it does not include any measures aimed at preventing smoking, instead focusing on the treatment of smoking addictions and supporting smokers who wish to quit.

Some of the national health programmes were specifically established to include screening activities, such as screening for cardiovascular disease risk factors; cancer (cervical cancer, breast cancer, colorectal cancer, prostate cancer); osteoporosis in women after the menopause; and phenylketonuria (PKU), congenital hypothyroidism and hearing screening in newborns. However, there are no publicly available data on the impact of these activities on morbidity and mortality rates (see section 1.4).

Certain preventive services, such as preventive checks-up provided in primary care for people at certain ages, are financed by the NHIF. These check-ups include laboratory tests for the early detection and risk assessment for different diseases (see above).

Access to health promotion and education as well as to disease prevention interventions is considered to be inequitable, with certain vulnerable groups having poorer access, (for example, Roma populations or homeless people) because they are more difficult to reach. The Roma health mediator programme is an example of a measure introduced in order to improve access to health care workers for Roma communities (see section 5.14).

## 5.2 Patient pathways

The patient's first contact with the health system is usually through the family medicine physician with whom he or she is registered. The consultation is free of charge if the patient is insured (see section 3.3.1). Uninsured patients can only visit the family medicine physician for free in a medical emergency, if they are suspected of having an infectious disease, if they are pregnant or in labour, or for family planning and other preventive services. Family medicine physicians are not required to assure provision of primary care out of hours, at weekends or during public holidays, but they perform on-duty calls in turn in continuity care centres. Patients usually rely on ambulance services and/or hospital emergency departments if they need medical assistance, including non-urgent care, during those times (see section 5.5).

The family medicine physician may refer the patient for laboratory or other tests. If the medical condition is beyond the competency of the family medicine physician, the patient is referred to a specialist in an ambulatory care setting or hospital. A referral from a family medicine physician is not needed for regular specialist check-ups for 58 specified conditions and patient groups, including: cardiac failure of class III–IV on the NYHA scale, TB, some mental health problems, high-risk pregnancies, hepatitis, patients after transplant, patients with rare diseases, etc. Patients diagnosed with these conditions or belonging to these patient groups can see a specialist directly.

After being seen by a specialist in the ambulatory care setting or hospital outpatient department, the patient is given a prescription, if needed, and the family medicine physician receives a letter (directly or through the patient) informing him/her about the patient's health status and of any completed or prescribed treatments. The extent of patient cost sharing for drugs varies from 0% to 80% (see section 3.3.1). Some drugs covered by the statutory health insurance can only be disbursed after an authorization process: the patient must prepare an application containing a medical report from the medical specialist, a proof of identity and documents evidencing his/her insurance status and submit all of this to the relevant commission (responsible for the particular disease) at the NHIH or DHIH level. The commission then reviews the application and, if the decision is positive, issues an authorization, which the patient then submits to the pharmacy together with the prescription in order to receive the drugs.

Chronic patients are followed up either by a specialist in the ambulatory care setting or by the family medicine physician; this includes patients with hyper blood pressure, dyslipidaemia, diabetes type 2, asthma and other obstructive respiratory diseases, and renal chronic diseases. The family medicine physician carries out home visits to patients with restricted mobility.

Family medicine physicians or specialists in both hospital and ambulatory care settings may refer the patient to physiotherapy and rehabilitation services, or prescribe home care services, or health aids and therapeutic appliances, as necessary. Such care is free of charge if it is provided by a health care provider who is under contract with a DHIH. If the patient prefers to use a non-contracted provider, they will have to bear the cost of the visit or hospitalization. At each point of the care pathway, except for medical emergencies, the patient must present his/her National Health Insurance Card in order to receive care free of charge.

### 5.3 Primary/ambulatory care

Primary care is provided by family medicine physicians who operate mainly as solo practitioners in individual practices. Primary care is also provided in group practices, primary health care offices in health centres and by primary care physicians in medical offices in schools and universities. Individuals can freely choose their family medicine physician and have the right to change the physician after six months (see section 2.9.2). Primary health care practices conclude contracts for health care services provision with the DHIHs for the patients enrolled on their lists. The number of patients registered with individual physicians and other terms and conditions of contracts are set by the Framework Contract and its implementation norms (see section 2.8.1).

The minimum number of registered patients required for concluding a contract with a DHIH is 800 and the maximum number is 2200 per physician working 35 hours a week. If the list exceeds 2200 persons, the working hours are increased, by one additional hour per day for up to 3000 patients and two additional hours per day for over 3000 patients. The capitation payment is adjusted in a way that discourages enlisting a very high number of patients in order to maintain the quality of services provided (see section 3.7.1). The optimal number of patients per primary care physician is set at 1800 in urban areas. Irrespective of the number of registered persons, a primary care practice must employ at least one nurse. The number of family medicine physicians that

can be contracted by a DHIH is set by a special commission in each DHIH and depends on factors such as the size of the population, morbidity levels, and the target number of patients per physician.

Family medicine physicians act as gatekeepers to secondary care as patients need a referral to access specialist care. However, there are certain chronic conditions for which patients can consult directly with a specialist physician for follow-up, including the aforementioned 58 conditions and patient groups (see section 5.2). Many patients bypass family medicine physicians by calling an ambulance or going directly to hospital emergency departments (see section 5.5).

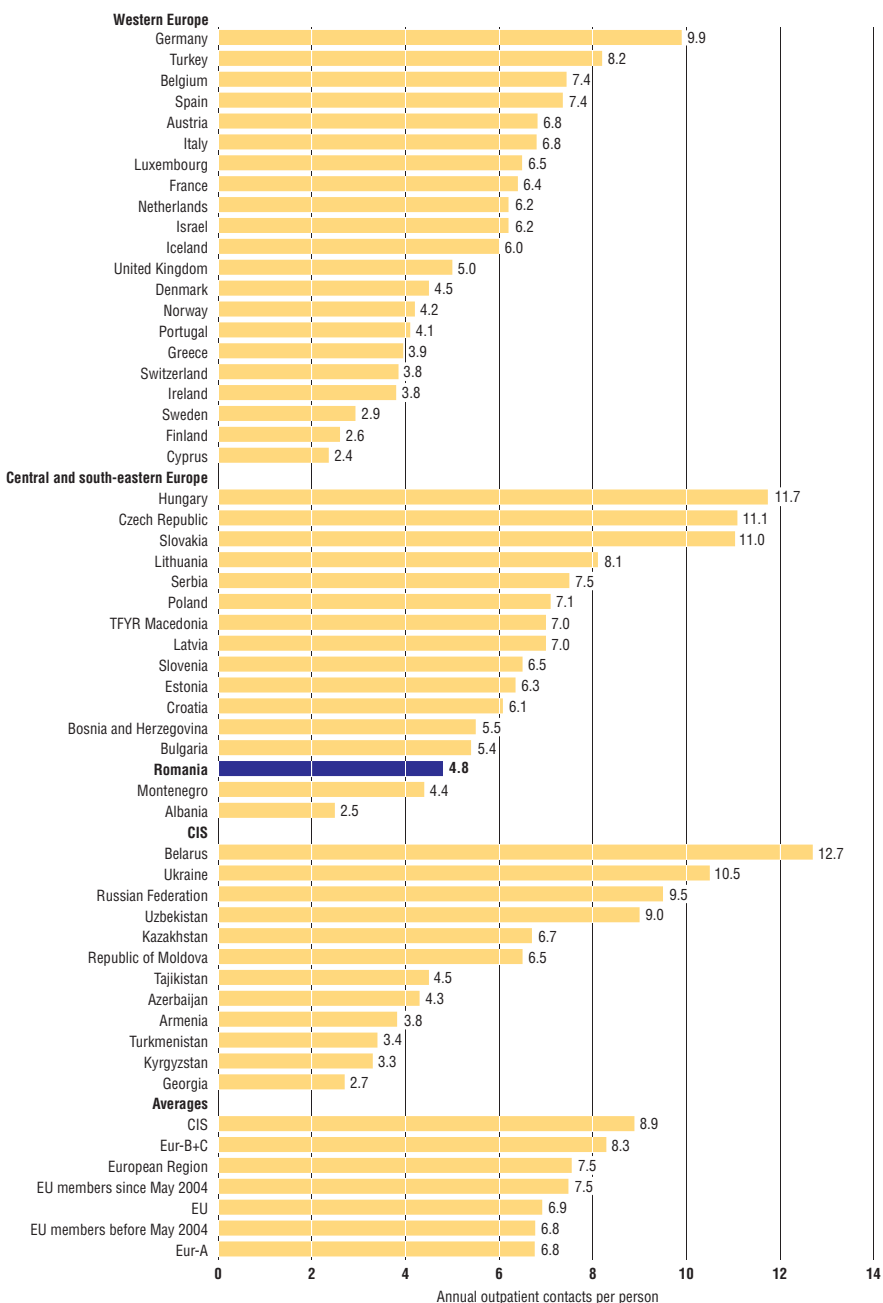
Insured patients are entitled to a basic primary health care benefits package (see section 3.3.1). The main services provided by family medicine physicians include: first aid interventions; preventive services, including the provision of advice and education regarding hygiene, diet, self-care and healthy lifestyle, as stated in the basic public health care services package established by the Framework Contract; consultations, diagnosis and treatment in the physician's competency areas; providing referrals to specialist services; monitoring of chronic diseases; and home visits. Family medicine physicians are not required to assure provision of out-of-hours care, which is mainly provided in continuity care centres (see section 5.2). In 2012, there were 192 continuity care centres in Romania in rural and urban areas (CMMB, 2012).

Besides contracts with the DHIHs, primary care practices can also conclude service contracts with other entities; for example, with the DPHAs for the provision of certain public health services and services performed under the national health programmes coordinated by the Ministry of Health (see section 5.1); with local authorities for the provision of community care services; or with universities for medical education or research.

Although primary care has been on the policy agenda of almost all governments since 1990, primary health care services remain underused and there is an “overutilization of hospital services” (Ministry of Health, 2014, p.28). In 2013, the number of primary health care or ambulatory care contacts, including in outpatient departments in hospitals, per person per year, was (at 4.8) lower than the EU average (6.9) and in countries like Hungary (11.7), the Czech Republic (11.1), Slovakia (11.0), Poland (7.1) or Bulgaria (5.4) (see Figs. 5.1 and 4.2c).

**Fig. 5.1**

**Outpatient contacts\* per person per year in the WHO European Region, 2013**



Source: WHO Regional Office for Europe, 2016.

Notes: \* Total number of primary health care or ambulatory care contacts divided by the population, including in outpatient departments in hospitals. European Region: the 53 countries in the WHO European Region; Eur-A: 27 countries in the WHO European Region with very low child and adult mortality (see WHO definition); Eur-B+C: 26 countries in the WHO European Region with higher levels of mortality (see WHO definition); CIS = Commonwealth of Independent States; TFYR Macedonia = The former Yugoslav Republic of Macedonia.

Access to primary care services varies between urban and rural areas, with residents in remote rural areas facing considerable challenges because of a shortage of primary health care workers, a poor infrastructure and the distances; for example, in 2014, 39.5% of all family medicine physicians worked in rural areas, which accounted for 46% of the population; about 300 local communities did not have a family medicine physician (AGERPRES, 2015; NHIH, 2015c). Specific measures have been implemented in recent years (shown in brackets) to enhance access to primary care services in rural areas, including:

- permitting family medicine physicians in rural areas to enrol more than 2200 patients without reducing the capitation payment that would otherwise apply to practices exceeding this number of registered patients (see section 3.7.1). This means that a physician can cover a local community with more than 2200 residents but with too few residents to justify two practising family medicine physicians (2008);
- requiring family medicine physicians in urban areas to register at least 1000 patients on their lists in order to qualify for a contract with a DHIH as a means of directing more physicians to rural areas (2009); areas with an insufficient number of family medicine physicians were exempted from this requirement in 2010;
- expanding the range of services that can be reimbursed, for example, out-of-hours home visits as a means to incentivize physicians to provide care for people who cannot afford travel costs (2008); performing electrocardiography (ECG) or echography for family medicine physicians who have competency in this area to discourage patients from bypassing primary care and accessing specialist care directly (2009);
- introducing a compulsory working time of 35 hours per week, with certain deviations depending on the number of registered patients, as described above, to ensure the presence of a family medicine physician (2010);
- increasing the share of FFS of the total income of family medicine physicians from 30% to 50% to incentivize increasing the number of services provided, including monitoring of pregnancy and newborns, family planning, risk assessment, medical examinations, home visits, within set limits, for example, four examinations per patient per year for chronic diseases (2011) (see section 3.7.1);
- reimbursement of telemedicine services in remote, isolated areas (2013).

There are no official data on the quality of primary care and there is no quality assurance system in place. It is expected that a quality assurance system will be developed in the near future, following the creation of the National Authority for Quality Management in Health Care in 2015 (see section 2.3).

## 5.4 Specialized ambulatory care/inpatient care

### Specialized ambulatory care

Specialized ambulatory care is provided through a network of hospital outpatient departments, polyclinics, specialized medical centres, centres for diagnosis and treatment, and specialist physician offices that sign contracts with the DHIHs. The majority of hospital outpatient departments are public (86%) (372 are public compared to 61 that have private majority ownership), while other types of specialist ambulatory care providers are mainly private (288 (97%) private polyclinics vs. 10 public; 214 (86%) private specialized medical centres vs. 35 public; 28 (80%) private centres for diagnosis and treatment vs. 7 public; 9222 (91%) private specialist physician offices vs. 938 public) (2013 data; National Institute of Statistics, 2015a). Specialized physicians who work in ambulatory care generally divide their time between the public and private sectors, with many employed in hospitals and working after hours in private settings, with or without a contract with the DHIH. For doctors working in public hospitals, private sector work is only permitted for out-of-hours services.

Insured patients have access to specialized ambulatory health care services included in the basic benefits package. Patients usually require a referral from their family medicine physician in order to access specialized ambulatory medical care, but there are exceptions for 58 conditions and patient groups (see section 5.2).

### Inpatient care

Inpatient care is provided by a large hospital network. Hospitals are categorized in accordance with the catchment area and the services provided<sup>6</sup> (Ministry of Health, 2015a):

- **regional hospitals** (or district clinical hospitals) (13 in 2015) have the competencies and resources to treat complex cases that cannot be treated at the local or district hospitals, including in neighbouring districts;

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<sup>6</sup> According to Law 95/2006, the term 'hospitals' also includes medical units with beds, i.e. institutes and medical centres, sanatoria, preventoria, health centres and medicosocial care units. These medical units with beds do not appear as hospitals in the Ministry of Health's statistics but they are paid in the same way as hospitals.



- **district hospitals** (41 in 2015, one in each district's capital) have a complex organizational structure, including an emergency unit; they provide services for the entire district and treat cases that cannot be treated at the local level;
- **local hospitals** (59 municipal hospitals, 62 town hospitals and 1 rural hospital in 2015) are general hospitals that provide services of moderate complexity for their catchment population;
- **emergency hospitals** (77 in 2015) are district, general local or specialty hospitals that have a complex organizational structure, are well equipped (they may have a mobile emergency unit) and are geographically accessible;
- **specialty hospitals** (115 in 2015) provide services in a certain specialty, such as paediatrics, psychiatry, TB, infectious diseases;
- **long-term hospitals for chronic diseases** (10 in 2015) provide long-term (several months) services for patients with chronic diseases;
- **clinical hospitals** (76 in 2015) perform teaching activities under contracts with universities;
- **institutes and clinical medical centres** provide teaching and technical coordination of activities in a specific domain, such as the Mental Health Institute, which coordinates the activity of mental health hospitals, or have a methodological role for the entire medical specialty;
- **health centres** are health care institutions that provide inpatient and ambulatory specialty care in at least two specialties for a larger catchment area (including several villages).

Hospitals are also classified according to their competency. There are five competency levels, ranging from I to V, with category I hospitals providing health care services of the highest complexity. These hospitals have the highest level of capacity regarding medical equipment and specialized medical staff. Category I hospitals usually provide services in several medicosurgical specialties, although some (subcategory I M) have high competence in only one field of activity (such a subcategory also exists for category II hospitals). Category V hospitals are hospitals with the lowest level of competence. They provide health care services for chronic patients; health care services in one specialty, such as TB, infectious diseases, psychiatry, recovery and others; or palliative services.

As regards ownership, hospitals can be divided into public hospitals, private hospitals and mixed-ownership hospitals. Private hospitals can be run by NGOs or commercial societies. They can also operate private wards within public hospitals, although this is rare. There has been a substantial increase in the number of private hospitals since the late 2000s, from 30 in 2008 to 161 in 2014 (see section 4.1.1). The majority of public hospitals (80%) are under the administration of local councils (Ministry of Health, 2015a). Other hospitals are administered by the Ministry of Health (13%) or other ministries (Ministry of Transport, Ministry of National Defence, Ministry of Internal Affairs) or governmental institutions (Penitentiary Administration, Romanian Information Service, Ministry of Justice, Romanian Academy) (7%). Public hospitals are established or closed by governmental decision, initiated by the relevant administrative authority.

Public hospitals can be managed by a legal or a natural person on the basis of a management contract. The hospital manager is selected by contest or public bidding, and he or she should have a medical, economic or legal background and specific training in health care services management. The executive management is ensured by a managerial board that includes: the hospital manager, the medical director (i.e. a medical doctor), the financial director and, if the hospital has more than 400 beds, a care manager (i.e. a nurse). The medical director leads the medical council formed by the heads of hospital departments or wards, the head of the laboratory, the chief pharmacist and the chief nurse. The strategic management of public hospitals is ensured by an administration council, comprising five to eight members, including representatives of the Ministry of Health or DPHAs, representatives of the district or local council, a representative of the Mayor, representatives of the professional associations and a representative of the university for teaching hospitals.

Hospitals may also provide ambulatory specialty services (see above), day care and day surgery (see section 5.4.1), home care, laboratory and other diagnostic services.

### **Relationship between primary, secondary and other types of care**

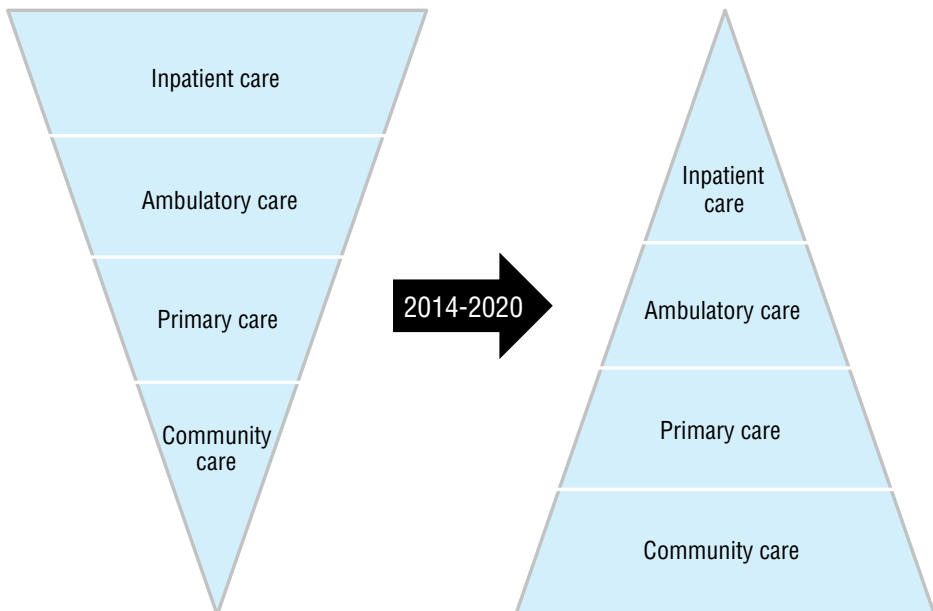
A major characteristic of the current health system is the lack of integration between the different sectors, namely public health, primary care, hospital care and other types of care, and the underdevelopment of care continuity.

After almost 25 years of health care reforms (see Vlădescu et al., 2008b), health care services provision in Romania remains characterized by overreliance on highly specialized inpatient care and underuse of primary and community

care. Patients tend to bypass primary care services and directly consult specialists in hospital or call an ambulance, even for minor health problems (see sections 5.2 and 5.5). In 2014, over 43% of hospital admissions followed a visit to the emergency department, while only about 29% of the admitted patients were referred by the family medicine physician (NSPH-MPD, 2015). The model of care in place builds on separate specialized services and there is a shortage of interdisciplinary teams to ensure a more integrated approach to health care (Viădescu et al., 2008b). There are currently no incentives to encourage a more integrated approach to service delivery. There are plans set out in the National Health Strategy 2014–2020 to change this by increasing the volume of services provided within primary and community care settings and to rationalize the use of hospital services (Fig. 5.2) (see also section 7.1). The Strategy explicitly refers to “the development of integrated district/regional health plans” but it does not provide further details on what these plans should consist of (Ministry of Health, 2014).

### Fig. 5.2

Vision of the National Health Strategy 2014–2020 on health care services provision



Source: Ministry of Health, 2014.

### 5.4.1 Day care

According to the Framework Contract, day care includes cases that require medical supervision for up to 12 hours, day surgery cases discharged on the same day and cases that need daily contact (for diagnosis, monitoring or treatment) of less than 12 hours per visit. According to the RO-DRG database, the most frequent health care services provided on a day care basis in Romania are: control of high blood pressure, radiotherapy for cancers, monitoring of HIV/AIDS patients, control of diabetes and endoscopy (NSPH-MPD, 2015).

Day care is provided in hospitals and health care centres under contract with the DHIHs, with approval from the Ministry of Health to provide such care within their structures. Day care services expanded considerably in 2014, following an amendment of legislation that allowed a wider range of services to be provided as day care (from 28 to 272 procedures) and a change in the payment for day surgery and day care (see section 3.7.1 on the change in payment mechanisms for day care). In 2014, day care cases accounted for 41.6% of all hospital cases compared to 36.5% in 2013 (NHIH, 2015c). Provision of day care remains underdeveloped compared to other countries and there remains scope for further increasing the provision of day care in Romania; for example, in 2014, only 13.8% cases of cataract were carried out as day surgery (NSPH-MPD, 2015), compared to 99.7% in Estonia, 41.2% in the Slovak Republic or 37.1% in Hungary (2012 data; OECD, 2014a).

## 5.5 Emergency care

Emergency care is organized at the national level as an integrated public system of institutions under the Ministry of Health, the Ministry of Internal Affairs, local authorities and the Special Telecommunication Service (STS), which operates the single European emergency call number (112). The STS has military status and provides communication facilities to the presidency, government and other bodies of national interest. It transfers emergency calls to the appropriate emergency agencies: ambulance, police, General Inspectorate for Emergency Situations, Romanian Gendarmerie, and the Mobile Emergency Service for Resuscitation and Extrication (*Serviciul Mobil de Urgență, Reanimare și Descarcerare*, SMURD) (STS, 2015).

Emergency responses use a three-colour code system, with different types of ambulance dispatched according to the code:

- **red** code cases refer to major life-threatening emergencies and involve dispatch of highly equipped ambulances, with intensive care equipment and a qualified medical doctor. The SMURD and the helicopter emergency medical system are complementary services that may be used in red code cases. Both services collaborate with the regular ambulance service;
- **yellow** code cases include emergencies with life-threatening potential and involve dispatch of an ambulance with equipment for emergency interventions, including a defibrillator, and with a qualified medical doctor or just a nurse;
- **green** code cases refer to non-emergency cases and involve ambulances with first aid equipment and medical or nursing staff depending on the case, for example, a nurse for patients with non-acute medical problems who need to be transferred to hospital, or a physician if a consultation is required.

According to reports by district ambulance services, a high percentage of cases are resolved by the ambulance staff at the patient's home. In 2014, this applied to 62% of cases in the Bucharest and Ilfov district. This has been interpreted to be an indication of overuse of ambulance services for cases that would be more appropriately cared for by family medicine physicians (Ministry of Health, 2015c) (see also section 5.3).

At the hospital level, emergency care is provided in hospital emergency units that employ doctors specialized in emergency or intensive care. These are independent units within the hospital, financed from the state budget. They can be accessed directly through self-referral or by ambulance. Patients are triaged according to urgency. After receiving care at the emergency unit, patients are either admitted for further treatment in the same hospital, referred to another hospital of higher competency, if required, or discharged.

In the past decade, Romania has successfully implemented a critical reform of the emergency health care services system. Supported by the World Bank and the EU Funds (Regional Operational Programme 2007–2013), the reform included improvement of hospital emergency departments through modernizing the infrastructure, training staff and improving communication; the implementation of telemedicine in emergency services; and the development of the SMURD, which is currently considered one of the best examples in the region (World Bank, 2014). Romania has a national telemedicine system in place, which connects ambulances and three medical data reception centres,

with the latter further connecting over 100 hospital emergency care units. Furthermore, since 2014, Romania has been involved in a NATO–Russia project in the field of telemedicine, which seeks to develop a multinational telemedicine system to improve access to health care services and increase survival rates in emergency situations, including in remote areas (NATO, 2014). The project aims to connect three national telemedicine systems located in Romania, the Russian Federation and the United States, and it is envisaged that by 2016 the project will conclude with a proof-of-concept exercise to test the capability of the system (NATO, 2014). There are also plans to develop community care in order to reduce the inappropriate use of emergency care and to increase the accessibility of vulnerable groups to health care services (see section 6.2).

There are no publicly available quality evaluation studies of hospital services or emergency care at the national level.

## 5.6 Pharmaceutical care

### **Organization, distribution and provision of pharmaceuticals**

In 2015, there were 54 local manufacturers with Good Manufacturing Practice (GMP) certificates issued by the NAMMD (NAMMD, 2015c) and 42 licensed importers, many of which had local production facilities (NAMMD, 2015a). Local manufacturers produce mainly generics and there is little national production of non-generics; however, the share of domestic production in the pharmaceutical expenditure is unknown. The largest domestic producer Antibiotice S.A. accounts for approximately 2.1% of the market share, while the largest manufacturers Sanofi, including Zentiva, hold 6.9% of the market (Cegedim Romania, 2013). Except for Antibiotice S.A. and the wholesaler Unifarm S.A., all manufacturers, wholesalers and pharmacies are privately owned.

The value of the pharmaceutical market was estimated at €2764 million in 2014. In that year, OTC drugs accounted for 18.7% of the market and their share has been increasing in recent years (Cegedim Romania, 2013). Generics accounted for 30% although their share fell by 17% compared to 2011 (APMGR, 2014).

Disbursement of drugs is through community pharmacies (see section 2.8.4). Prescribing has been done electronically since 2012 and paper prescriptions can only be used under special circumstances. A pharmacy can be established by a legal person (company), and must employ at least one pharmacist.

There is one pharmacy to 4000 residents in urban areas, one pharmacy to 3500 residents in the 41 district capital cities and one to 3000 residents in Bucharest. Pharmacies are not evenly distributed, but on average there is one pharmacy for 2668 residents in rural areas, while in cities the ratio is one to 1965 (Ministry of Health, 2015b). There are no requirements regarding the geographical distribution of pharmacies.

In 2015, there were 473 pharmaceutical wholesalers authorized by the NAMMD (NAMMD, 2015b). In 2011, there was a substantial degree of market concentration, with 12 wholesalers supplying 80% of the market (World Bank, 2011a). According to 2011 data, there was also a significant degree of vertical integration between wholesalers and pharmacies, with eight wholesalers owning 25% of the pharmacies nationwide (World Bank, 2011a).

### **Accessibility, adequacy and quality of pharmaceuticals**

All insured persons are entitled to pharmaceuticals included in the positive lists elaborated by the HTA department of the NAMMD (see section 2.7.2). For pharmaceuticals prescribed within ambulatory care, users have to pay 10% of the price for generics and 50% for branded or innovative drugs, with some exemptions (see sections 2.8.4 and 3.3.1). No specific studies on the perceived affordability of drugs in Romania are available.

There are also concerns that the lower prices of some medicines in Romania compared to other EU countries may lead to parallel exports, which may threaten access to certain medicines and there is some anecdotal evidence that access to certain new treatments is difficult, with costs being the main obstacle. Furthermore, the list of reimbursed drugs was not updated between 2008 and 2015, which means that patients did not have access to new treatments during that period.

### **Consumption of pharmaceuticals**

Pharmaceutical consumption in terms of the total expenditure on pharmaceuticals increased by 5% to 6% per year between 2011 and 2013 (MedFarm, 2015). The highest increases were observed for pharmaceuticals prescribed under the national health programmes. Drugs for chronic diseases accounted for the highest share of drug consumption in 2012 and pharmaceuticals for children, pregnant women and women during confinement for the lowest. In terms of expenditure, consumption increased from €1287 billion in 2012 to €1380 billion in 2013 (MedFarm, 2015). According to a 2014 report by the OECD, pharmaceutical expenditure in Romania in 2012 was low compared

to other EU countries, at €16 per capita in Romania compared to €13 in Hungary, €402 in Slovakia, €313 in the Czech Republic and €34 in Poland (OECD, 2014a).

Despite the increasing value of the pharmaceutical market and the increase in public spending on pharmaceuticals, there have been calls for increasing the public budget for pharmaceuticals. There is concern about the underuse of generics in Romania, which has been attributed to the claw-back tax, the price-setting procedures and a lack of incentives encouraging the use of generics (see section 2.8.4).

A defined pharmaceutical policy with clear and agreed objectives is lacking and regulation of the pharmaceutical market has so far been more reactive and ad hoc, rather than part of an overarching long-term policy. Regulation has focused on containing costs and curbing increased demand, while health objectives and other system goals played a marginal role, if any. The Ministry of Health and the NHIH continue to try to improve the price-setting procedures, drug reimbursement and the use of HTA through particular projects and technical assistance, to get better value for money. A system of cost–volume and cost–volume outcome agreements was proposed in 2014 and partly implemented in 2015 (see section 2.8.4).

## 5.7 Rehabilitation/intermediate care

Rehabilitation care is provided in ambulatory settings, in medical practices with rehabilitation equipment and medical spas, and in inpatient settings, sanatoria and preventoria (sanatorium-type health institutions for patients infected with tuberculosis who do not yet have an active form of the disease). The Framework Contract lists conditions for which rehabilitation can be received in ambulatory settings; for example, according to the 2015–2016 Framework Contract, medical practices may provide rehabilitation services for 41 conditions and medical spas for eight conditions. The contract also provides a list of diagnostic and therapeutic procedures that can be performed during rehabilitation sessions. Rehabilitation procedures in inpatient settings are reimbursed by the NHIF for a maximum of 21 days per year, except for patients with cerebral paralysis up to 18 years old, for whom the limit is 42 days per year, and up to four procedures per day.



Rehabilitation care provided in sanatoria and preventoria is covered by health insurance for up to 14–21 days per year and includes a maximum of four procedures per day. The number of sanatoria and preventoria decreased from 17 in 2008 to 15 in 2013 (National Institute of Statistics, 2015a) due to closures and mergers with hospitals. Most sanatoria are balneary (spa) sanatoria (11 in 2013). Four of them had private ownership in 2013 compared to 2008 when there were eight balneary sanatoria and all of them were public.

Access to rehabilitation services is considered to be inadequate, with long waiting lists ranging from several months to two years. Rehabilitation services are not integrated with other forms of care, including social care. Increasing access to rehabilitation services has been included as one of the goals in the National Health Strategy 2014–2020, although no specific targets are set. Specific development plans are expected in 2016.

## 5.8 Long-term care

Publicly funded LTC and social assistance for older people includes those who have no family or a legal guardian; those without housing, income or with insufficient income; and those incapable of self-care or with special care needs (Official Gazette, 2007). The eligibility for such care is assessed on a case-by-case basis (a social investigation) and takes into account health status, the degree of autonomy, housing conditions and income of the individual. Individual health and social care needs are assessed by a specific questionnaire. The services that are available include: temporary or permanent home care; temporary or permanent stay in elderly nursing care hostels; access to day care centres and elderly clubs; and social housing.

If the person is unable to consent to receiving such care, the decision is taken by the social services of the local council on the basis of the results of the social investigation, the recommendation of the family medicine physician, consultation with a specialist physician and consent of a family member.

In 2013, there were 229 elderly nursing care hostels, with a total of 12 016 beds. Out of these, 129 were private hostels (paid for on an OOP basis) and the rest were public under the administration of district councils (National Institute of Statistics, 2015a). There are no statistics on the number of day centres, elderly clubs, social housing and hostels, or on LTC provided in patients' homes.

The sociomedical network that delivers services specifically to people with disabilities was composed in 2014 of 513 residential centres (494 public and 19 private), with a total of 25 068 beds and 85 day centres (84 public and one private) (National Institute of Statistics, 2015c). Residential centres include: care and assistance centres, centres for recovery and rehabilitation, sheltered housing, crisis centres and independent living centres. Day centres include: occupational centres, ambulatory recovery and rehabilitation centres, psychosocial counselling centres, recovery and social integration centres. Day centre care is also provided by mobile teams.

In 2013, 2936 older people were on the waiting list for LTC (National Institute of Statistics, 2015c). On average, waiting times are up to two years for LTC (Popa, 2010). In 2009, Romania had a residential care coverage rate of 0.5%, which was among the lowest in Europe (EC, 2012). Increasing access to LTC is included as one of the goals in the National Health Strategy 2014–2020 and specific development plans are expected in 2016.

## 5.9 Services for informal carers

There is no publicly available data on the number of informal carers in Romania and on the activities they perform. The statistics on social services only include information on the number of carers that receive monthly benefits for caring for disabled children and of persons working as the personal assistants of disabled persons with severe visual impairment (7873 and 43 836, respectively, in 2013) (National Institute of Statistics, 2015a). Statistics compiled by the Ministry of Labour, Family, Social Protection and Elderly show that, in 2014, out of 737 885 disabled persons, only 2.3% were institutionalized and the remaining 97.7% were under the care of their families (Ministry of Labour, Family, Social Protection and Elderly, 2015). Many older persons who are chronically or terminally ill, or have multiple comorbidities, are assessed and granted a degree of disability and the number of these cases has risen consistently in recent years. There is a legal division between care for elderly people and care for the disabled, but in reality many services and classifications overlap and the beneficiary may combine other benefits (old age, invalidity or survivor) with disability benefits (Riedel & Kraus, 2011). Most dependent older people are cared for by family members, although this tends to be more common in rural areas, and most family caregivers are women, usually wives or daughters, or older persons who may also become dependent themselves. While the importance of informal care is widely recognized throughout the country, there are no formal policies as yet seeking to address the situation of informal carers.

After a person is registered as severely disabled, he or she can opt to have a personal assistant paid for by the local authorities or to receive a cash allowance. Personal assistants are contracted by the local authority. They have to follow care plans prescribed by the specialist doctor and must inform the local authority within 48 hours about every change in the physical, mental or social status of the disabled person they look after. From 2001, the profession of personal assistants was initially regulated by a governmental decision and, since 2006, by the Law on the Protection and Promotion of the Disabled Persons Rights (modified in 2008). To become a personal assistant a person must be over 18 years old, have no criminal record, have at least a primary school degree (or have completed at least the 4th degree in the case of relatives) and possess full mental and physical capacity. Personal assistants must participate in training courses organized by the local authority at least once every two years. A personal assistant is entitled to: a basic salary, equivalent to the salary of a social worker with intermediate education, paid for eight hours of work per day and up to 40 hours per week; annual leave under the same conditions as all persons working in public institutions; and, under certain circumstances, free urban and interurban public transportation. Professional personal assistants who care for people with severe disabilities may receive an additional 15% of the basic salary as compensation for the additional workload (including psychological strain), an additional 15% of the basic salary when caring for two adults with severe disabilities at the same time, and an additional 25% of the basic salary when caring for an adult with a severe disability with HIV or AIDS.

The following persons cannot receive a cash allowance or have an informal carer paid for by the local authority: parents or legal representatives of children with severe disabilities that are hospitalized in special facilities; adults with severe disabilities or their legal representatives during their stay in residential facilities; persons with severe disabilities if arrested and sentenced under criminal law.

## 5.10 Palliative care

Palliative care was developed in Romania after 1990, to start with through initiatives organized by various NGOs, with international financial support. Currently, palliative care services are offered by diverse providers paid under contracts with the DHIHs (for health care services) or by the Ministry of Labour, Family, Social Protection and Elderly (for social services). Palliative services include the following types of assistance and settings:

- palliative care provided in patients' homes, offered by private providers and NGOs;
- social assistance at day centres, paid for by local authorities;
- ambulatory specialist palliative care, offered by some oncology practices;
- specialist palliative care units within hospitals and hospices; and
- hospital mobile teams, i.e. palliative care specialists working under contracts with hospitals.

The Palliative Care Services Register compiled by the Romanian National Association for Palliative Care shows that in 2012 there were 57 providers of palliative care (19 public, 26 NGOs and 12 private). The following types of settings/services were available: specialist palliative care units within hospitals and hospices (38 units), home palliative care (19 units, e.g. hospital, family medicine physician office, home care), day centres (4 units), ambulatory units (5) and hospital mobile teams (4). Providers are mainly located in larger urban areas. According to estimates, in 2014, only 7.9% of the needs for palliative care were covered by the existing palliative care network (Romanian National Association for Palliative Care, 2014).

There is no publicly available information on the quality of palliative care. Palliative care standards and quality monitoring are expected to be developed in the future, following the creation of the new National Agency for Quality Management in Health Care (see section 2.3). Increasing access to palliative care is included as one of the goals in the National Health Strategy 2014–2020 and specific development plans are expected in 2016.

## 5.11 Mental health care

Mental health care in Romania has traditionally been provided in institutional settings and although policies seeking to shift care into the community have been introduced since 2000 (WHO, 2015a), their full implementation has as yet to be achieved.

For example, there was only a small decline in the number of psychiatric hospitals, from 38 in 2006 to 35 in 2014 (Ministry of Health, 2015a; WHO, 2015a), while the number of psychiatric beds, including beds for neuro-psycho-motor rehabilitation, increased from 17 097 in 2008 to 17 337 in 2013 (National Institute of Statistics, 2015a). The mental health workforce is low compared to other EU countries, with, for example, the number of psychiatric

nurses at 16.8 per 100 000 population in 2014 compared to 31.9 per 100 000 in high-income countries, according to the World Bank income categories (WHO, 2015a).

There has been a decline in bed occupancy between 2006 and 2013, from 91.4% to 88.1%, and a very small decline in the ALOS in psychiatric hospitals, from 19.9 to 19.4 days over the same period (National Centre for Health Statistics and Information, 2014). In 2006, following the EC Evaluation Mission on Mental Health in Romania, the authorities developed new legislation and released funding for the development of mental health community services and mobile intervention teams (EC, 2006). This also involved the establishment of mental health centres, which operate within the structure of hospitals. The transformation further envisaged the introduction of additional activities to ensure continuity of care and interventions at the community level, and hospitals were provided with additional funding for the refurbishment of facilities and for employing staff.

In 2009, the National Centre for Mental Health (now the National Centre for Mental Health and Anti-drug Fight) was reorganized, although the scope of activities did not change substantially. Further legislation concerning specialized health, education and social integrated services for persons with autism and associated mental health disorders was issued in 2010 (Law 151/2010), while Law 194/2011 targeted the control of operations with products likely to have psychoactive effects to improve the control of substance abuse. More recently, the Mental Health Law 487/2002 was revised in 2012 to adapt it to the European Convention for Human Rights and Fundamental Freedoms.

Overall, there is little evidence about the impacts of changes introduced to enhance mental health care services on population health indicators. There are plans to improve mental health care services further through the development of clinical guidelines and community care standards, as well as for information, education and communication campaigns to reduce the social stigma attached to mental ill health (Ministry of Health, 2014).

## 5.12 Dental care

Dental care is provided through a network of 14 118 ambulatory facilities, most of them private (12 127; 86%), which are organized as private dental practices (11 931) or medical dentists' civil societies (a form of professional organization for liberal professions in Romania) (196). Out of 1991 public dental

practices, 432 are dental practices at schools and 31 are dental practices at universities. Dental practices at schools and universities are financed from the state budget.

Due to limited funds, the NHIF covers only a small number of dental health care services. In 2014, dental care accounted for only 0.2% of the total NHIF expenditure on health care services (NHIH, 2015a). Most dental care services are paid for directly. The basic benefits package includes a very limited range of dental services, which are free of charge for children and people under 18 years, and for specific population groups such as war veterans, fighters in the 1989 revolution, etc. For patients aged over 18 years the NIHF will cover services for between 60% and 100% of the tariffs.

Dental practices operate under contracts with the DHIHs, except for dental practices in prisons that conclude contracts with CASAOPSNAJ (see Fig. 2.1). Uninsured persons have access to a minimum benefits package that only covers medical emergencies.

There are no data available on the accessibility and quality of the dental services. There are currently no reform plans in the area of dental care.

## 5.13 Complementary and alternative medicine

Complementary and alternative medicine (CAM) has been regulated since 2007 by the Law 118/2007 on Complementary and Alternative Medicine. Accordingly, CAM includes health care services that are not integrated into the mainstream health system and can replace or complement conventional therapies. The Law mentions about 40 types of CAM therapies that are grouped into six main categories:

- **biological and pharmacological:** apitherapy (using honey bee products), antioxidant therapies, ozone therapy, etc.;
- **herbal:** herbal medicine, aroma therapies, algotherapy and oligotherapy;
- **diet/nutrition and lifestyle:** Gerson therapies, Feng Shui or vegetarianism, etc.;
- **alternative:** acupuncture, homeopathy, Yoga, Ayurveda, Qigong, etc.;
- **manual:** presopuncture and reflexotherapy, osteopathy, massage therapy, Feldenkrais method, chirotherapy, etc.;
- **bio-electromagnetic and energetic:** electromagnetic therapy, crystal therapy, electro-acupuncture, natural and artificial light therapy, etc.

The Law is not exhaustive and the Ministry of Health may recognize additional therapies as CAM therapies. All CAM providers must be licensed or approved by the Ministry of Health through a certified proof of professional training in these fields. Acupuncture, homeopathy, herbal therapy, osteopathy, apitherapy and chirotherapy can be practised only by doctors, dentists and pharmacists. CAM practices can use the name ‘health care centre’ only if they employ at least one medically qualified doctor or one nurse. Other CAM therapies can be provided by any person that holds a university degree qualification and a proof of training certified by the Order of Complementary and Alternative Medicine Practitioners. Training courses and centres are accredited by the Ministry of Health within a special department for continuous education. Available CAM courses or training programmes are published on the department’s website, are led by medical doctors and are accredited also by the College of Physicians (only for acupuncture, homeopathy, herbal therapy, osteopathy, apitherapy and chirotherapy). Participation fees are not subsidized by the health care system. The involvement of the medical professional association in CAM shows the acceptance of CAM by the mainstream medical profession.

The mainstream health care system funds only acupuncture, which is included in the Framework Contract in the same way as ambulatory specialized care (see section 3.3.1). A patient may receive two acupuncture treatments per year, with each course lasting no longer than 10 days. The NHIH pays for an acupuncture treatment (about €32) and for acupuncture specialist visits (about €3). Patients must be referred by their family medicine physician or by a specialist physician in order for the costs to be covered. All other procedures are paid on an OOP basis by the patients. Data on the use of CAM are not available.

## 5.14 Health care services for specific populations

### **Roma populations**

The Roma population, which accounts for 1.3% of the total population in Romania, remains at higher risk of poor health outcomes compared to the rest of the population because of cultural barriers and their socioeconomic status preventing access to health care (see sections 1.1 and 1.4).

From 2002, so-called health mediators have been introduced within the national Promotion of Mother and Child Health at Community Level programme (Romani CRISS, 2008) to enhance access to health care services among the Roma population. Health mediators are mainly women who are recruited from the Roma community, receive specific training and are employed by the

local health authorities to facilitate communication between medical staff and the community. According to the latest data available, the number of health mediators declined by almost 40% between 2008 and 2014, from 688 to 412 (NIPH, 2013). However, this decline has to be interpreted, in part, in the context of 2008 reforms when health mediation activities were taken over by the local authorities. Furthermore, health mediator positions are granted on one-year contracts only, which, according to the Labour Code, cannot be renewed more than three times. A range of projects continues to be funded through EU structural funds and other sources, such as EEA and Norway Grants, Open Society Foundation, and others in order to support the programme.

### **Refugees, asylum-seekers and immigrants**

Since 2001, a Migrant Health Department at the International Office for Migration (IOM) Romania has provided health assessments for transiting refugees upon their arrival and pre-departure health assessments as required by the countries of resettlement, with the purpose of prevention and control of communicable diseases. Foreigners that have obtained a protection form in Romania and foreigners that have acquired a right of residence in Romania have the same rights to health care as Romanian citizens.



## 6. Principal health reforms

The Romanian health care system has been in a perpetual state of reform since the collapse of the communist regime in 1989, with 26 ministers of health since then. Reform initiatives since 2008 have included a failed attempt, from 2008 to 2012, to undertake a major overhaul of the health care system. The reform failed, in part, because of poor communication of its objectives to the public and, more importantly perhaps, because of political changes in 2012 as a consequence of parliamentary elections that year. However, some elements of the proposed reform have since been put into practice by the new government, in place from November 2015.

Other reforms implemented since 2008 have focused mainly on introducing cost-saving measures, including an attempt to shift costs to drug manufacturers through introducing the claw-back mechanism in 2009, and to the population through amending co-payments for drugs in 2013, along with a reorganization of the hospital sector (2010–2014). Many policies were shaped by agencies such as the EU, IMF and World Bank; for example, legislative changes were undertaken in the context of Romania's EU accession.

Reform initiatives have often taken a long time to be implemented because of delays in the development of secondary legislation or contradictions between different pieces of legislation. Policies have frequently required multiple modifications and additions, as they were not clearly formulated to start with. Some policies were never implemented at all, mainly because of political instability. There have generally been few efforts to assess policy impact.

## 6.1 Analysis of recent reforms

The Romanian health care system has been in a perpetual state of reform since the collapse of the communist regime in 1989. The 26 ministers of health and 17 presidents of the NHIH that the health care system has seen since 1989 have been confronted with multiple challenges, mainly stemming from chronic financial instability and underfunding and, related to that, dissatisfaction with the system on the parts of the public, health care providers and managers. The global economic crisis of 2008 exacerbated the need for health care reforms. This chapter reports on the major reforms and policy initiatives introduced between the publication of the last HiT report for Romania (2008) (Vlădescu et al., 2008b) and December 2015.

Before 2008, the majority of reforms were introduced as incremental changes to the system, without taking a system-wide perspective and making concomitant adjustments in other sectors. The main advantage of this approach was that it was relatively easy to manage within the existing political and administrative structures. However, in most cases, the implemented reforms were not based on impact studies or evaluated and so their effects are not well understood. The system in place continues to face numerous challenges, with a lack of coordination among services and sectors, and with poor health and other performance outcomes (see section 1.4 and Chapter 7). In order to address these challenges, a proposal for a radical and comprehensive health care reform was developed during 2008 to 2012. This reform was, however, not implemented (see section 6.1.1) and reform efforts that have been pursued since then have resorted to following an incremental approach (see section 6.1.2).

### 6.1.1 The failed 2008–2012 reform initiative

In 2007, the President of Romania appointed a Commission for Romanian Public Health Policies Analysis and Development to perform an analysis of the population's health status and the health system and to provide policy recommendations for improving the performance of the health system. By the end of 2008, the Commission had identified six major areas that should be the focus of policy interventions: health system financing; health system organization; hospital care; drug policy; primary care; and human resources. The Commission's report also included 19 specific interventions as solutions to the identified problems (Vlădescu, Astărăstoae & Scîntee, 2010).

On the basis of this report, Sanitas, the largest union of medical staff in Romania, held consultations with the main stakeholders in order to agree on the core principles and strategic direction for the health care reform. The consultations were carried out between 2009 and 2010 at the initiative of Sanitas but with approval from Romania's president. While an agreement was not achieved because of technical reasons (related to the union's organization), there was broad agreement among stakeholders on the problems and solutions presented in the Commission's report and that there was a general willingness to introduce a major reform of the health system. Given this support, the Commission became involved, together with institutions such as the Ministry of Health, Ministry of Public Finances, Commission of Insurance Surveillance, NHIH and professional associations, in drafting a new framework law to replace Law 95/2006. National experts, mainly in the areas of health insurance, hospital care, primary care and health care quality standardization, as well as international and national institutions, including the World Bank, EC, WHO, IMF, Alliance of Romanian Insurance and Re-insurance Associations, and the Romanian Association of International Pharmaceutical Producers, were also involved (Vlădescu & Astărăstoae, 2012b). The main changes envisaged in the proposal included greater reliance on private solutions in health insurance and health care provision and a firmer focus on performance, in particular:

- reducing the number of persons exempted from paying health insurance contributions and replacing the current DHIHs with private health insurance houses and regulated competition (similar to the Dutch model);
- allowing hospitals to become foundations or commercial entities to give managers greater freedom to introduce measures to stimulate efficiency; for example, at present, managers cannot use pay incentives for staff to encourage better performance and must always choose the cheapest suppliers, even if this could mean lower quality;
- introducing cost–volume contracts and cost–volume outcome contracts;
- introducing multidisciplinary teams at primary care level;
- establishing an agency for health information and quality, responsible for designing and implementing national strategies in the areas of health information and quality, and developing, implementing and monitoring quality standards.

The legislative proposal was submitted for public debate in December 2011. However, the public consultation was not accompanied by a structured campaign on the content of the proposed reforms and, because of general discontent

among the public in response to the implementation of austerity measures (see section 1.2), the proposal was deemed politically unviable and withdrawn in mid-January 2012. Nevertheless, after the new government took power in May 2012, the new Minister of Health implemented a number of measures that had been included in the failed proposal, including the introduction of cost-volume contracts (2015), the establishment of the National Authority for Quality Management in Health Care (2015) and proposals for allowing private practice in public hospitals (see section 6.2).

### 6.1.2 Other reforms

Other reforms focused mainly on introducing cost-saving measures, with some of these introduced as emergency ordinances, allowing the lengthy legislative process in the parliament to be bypassed. Measures included an attempt to shift costs to drug manufacturers through introducing a claw-back mechanism in 2009 and to the population through amending co-payments for drugs in 2013, along with reorganizations of the hospital sector (in 2010, 2011 and 2014). The latter was in part in response to patients' dissatisfaction with service delivery and quality, while other changes were undertaken in the context of Romania's EU accession, such as changes in the legislation on mental health and environmental health, among others. However, many reform initiatives took a long time to be implemented because of delays in the development of secondary legislation or contradictions between different pieces of legislation. Frequently, policies were not clearly formulated and therefore required multiple subsequent modifications and additions, while others were never implemented at all, mainly because of political instability. There have generally been few efforts to assess policy impact. Stakeholders are generally consulted and the public is increasingly involved in decision-making, including, for example, in the development of the Framework Contract (see section 2.9.5). Many policies are informed by agencies such as the EU, IMF and World Bank, and in these cases domestic stakeholders are less likely to be consulted.

Table 6.1 provides a summary of incremental reforms introduced between 2009 and 2015.

**Table 6.1****Summary of 2009–2015 reforms**

Reform content and/or aims	Information on the reform background, implementation and outcomes
<i>Health care expenditure: changes to drug reimbursement</i>	
2009 – Introduction of a claw-back tax for reimbursed drugs (Emergency Ordinance 104/2009 modifying Law 95/2006):	<ul style="list-style-type: none"> <li>• Removal of pharmacy ceilings on reimbursed drugs in 2008 led to increasing expenditure on drugs, delays in the NHIH's payments to drug suppliers and to accumulation of debts by the NHIH</li> <li>• Introduced as an emergency ordinance (bypassing the parliament) in order to reduce the growth in the NHIH's debt</li> <li>• Implemented in 2011 (it took two years to develop secondary legislation) against strong criticism from the pharma industry</li> <li>• Led to a reduction of the NHIH's debts and regulated its drug budget</li> </ul>
Every quarter, every manufacturer has to return to the state budget a percentage of the profits according to a special formula (see section 2.8.4).	
2009 – Modification of the reference price system:	<ul style="list-style-type: none"> <li>• The measure was necessitated by the increasing trend in pharmaceutical consumption and its impact on the health care budget, especially given the absence of appropriate control and planning tools</li> <li>• Not enforced until 2014 due to lack of political will; implemented against strong criticism from the pharma industry</li> <li>• Resulted in a 20% decrease (between June and September 2015) of the cost of reimbursed drugs and better access to some innovative medicines for patients; however, the relatively low reference price may increase parallel exports and thus decrease the availability of medicines in Romania</li> </ul>
Reference price in Romania to be the lowest among 12 selected EU countries; the list of reimbursed drugs and their prices should be revised each year.	
2013 – Law 72/2013 on combatting late payment in commercial transactions between undertakings or between undertakings and public authorities:	<ul style="list-style-type: none"> <li>• The Law transposed Directive 2011/77/EU on Combatting Late Payment in Commercial Transactions into Romanian legislation</li> <li>• Association of Generic Drugs Producers in Romania concluded an agreement with the Ministry of Health on the gradual shortening of the payment periods between 2013 and 2014</li> </ul>
Time that the NHIH has for drug reimbursement is limited to 60 calendar days (before, drug reimbursement could take over 180 days).	
2013 – Introduction of HTA as the basis for the inclusion of drugs on the reimbursement list (Ministry of Health Order 724, later replaced by Order no. 861/2014 and modified by Order 387/2015, with more evaluation criteria included):	<ul style="list-style-type: none"> <li>• Transposition of Directive 2011/24/EU on the application of patients' rights in cross-border health care</li> <li>• Implemented by the HTA Unit set up in 2012 within the Ministry of Health (in 2014 moved to the National Agency for Medicines and Medical Devices)</li> <li>• All stakeholders agreed on the necessity of the introduction of HTA</li> </ul>
The Order sets documentation to be submitted by applicants, methodology and HTA criteria to be used in the evaluation of medicines for inclusion in the reimbursement list.	
<i>Health care expenditure: introduction of patient cost sharing</i>	
2013 – Introduction of patient co-payment in inpatient care (Government Decision 117):	<ul style="list-style-type: none"> <li>• Preceded by various impact studies, including by the World Bank</li> <li>• There have been no significant effects on hospital incomes and the use of inpatient care (the level of co-payment is low and many categories of patients are exempt)</li> </ul>
Co-payment of 5–10 lei (€1.1–2.3) per admission, payable at discharge, with certain categories of patients exempt. The objectives were to raise money and to incentivize patients to use less inpatient care and more outpatient care.	

*Health care expenditure: improving monitoring of expenditure*

2010 – Launch of SIUI (the national informatics integrated system of the health insurance system):

A comprehensive information system managed by the NHIH that covers all DHIHs, health care providers and pharmaceutical care (with unique software for each type of provider and for the DHIHs). The system is connected to other databases, such as the police, social security, etc. (see sections 2.7.1 and 4.1.4). The aims were to ensure transparency in funds utilization and to enable health care managers to make evidence-based decisions.

- Initiated in 2003, piloted during 2007–2008 in several districts and since 2008 on a national scale; fully implemented in 2010

2012 – New mechanisms were introduced to monitor health care expenditure on a monthly basis (Common Order 858/1194/2012 of the Ministry of Health and the Ministry of Public Finance):

Introduces monthly financial reports by the managers of public hospitals to the Ministry of Health, with penalties, including dismissal of the manager, if the agreed limits are exceeded. The objective was to improve monitoring and control of hospital expenditure.

- A dedicated webpage was created on the website of the Ministry of Health where the managers of public hospitals upload data on the execution of the monthly budgets

2012 – Introduction of e-prescription for reimbursed drugs (Ministry of Health/NHIH Order 674/252):

Introduces an electronic filing system for prescriptions. The objective was to reduce errors in the reimbursement of prescription pharmaceuticals.

- Introduced against some resistance from physicians and pharmacists
- The NHIH developed a guide and tutorials for filling e-prescriptions
- Implementation started on 1 July 2012; e-prescriptions have been used exclusively since 1 January 2013

2015 – Introduction of the National Health Insurance Card (based on Law 95/2006):

Introduction of the National Health Insurance Card as an electronic tool that validates service provision within the NHIH's system and ensures that the provider is reimbursed (see section 4.1.4). Expected to increase transparency and efficiency of health insurance expenditure by monitoring health care delivery and providers' behaviour.

- Introduced against some resistance from health care providers
- Card distribution started in September 2014; since May 2015, no health care service has been provided without the patient presenting their National Health Insurance Card (except for services provided to children and in medical emergencies)

*Health care revenue: increasing the number of people contributing*

2010 – Inclusion of all pensioners with incomes of over 740 lei a month (€155) in the pool of NHIF contributors:

Pensions under 740 lei are exempted from contribution payment. The objective was to increase the pool of contributors to the NHIF as only a quarter of the population entitled to health care benefits was contributing.

- The formulation of the policy was unclear (the original wording stated that "pensions below the taxable income are exempted from contribution payment") and led to errors in the calculation of pensioners' contributions; in 2012, the law was contested by the opposition party and the Constitutional Court issued a decision clarifying the calculation of contributions (the 5.5% insurance contribution is applied only to incomes over 740 lei); the State was forced to give back all excess contributions

*Reorganization of the hospital sector*

2010 – Decentralization of administration of public hospitals (Emergency Ordinance 48/2010):

Ownership of the majority of hospitals passed to local councils; the Ministry of Health retains the ownership of about 63 hospitals and is responsible for their operating costs. The objective was to ensure better administration of hospitals.

- Several local authorities were against the policy (due to lack of funds and experience to administer hospitals) but others perceived it as an opportunity and made investments in the hospitals that were moved under their ownership

<p>2011 – Approval of the National Strategy for Hospital Rationalization (Government Decision 303/2011):</p> <p>The Strategy included: reducing the number of beds, reducing expenditure on health personnel, increasing hospital autonomy, reclassification of hospitals (which is linked to financing), implementation of (own) information systems. The objective was to improve performance of the hospital system.</p>	<ul style="list-style-type: none"> <li>• The Strategy was elaborated with support from the World Bank and was subject to debate with key stakeholders</li> <li>• The Strategy was supposed to be followed by a change in the hospital payment methods and a human resources strategy, but these were not implemented due to political instability</li> </ul>
<p>2011 – Closing down of 67 hospitals (Government Decision 345/2011):</p> <p>The Decision proposed that 67 hospitals that did not fulfil certain criteria were closed down and the released resources relocated to other hospitals; the buildings of closed hospitals were to be turned into social care institutions for the elderly or LTC institutions.</p>	<ul style="list-style-type: none"> <li>• The Decision was based on an analysis of hospitals' fulfilling certain criteria (mainly shortages of medical staff, e.g. no intensive care specialists available in hospitals with surgery departments, restricting their ability to perform more complicated interventions and resulting in a lower reimbursement from the NHIH); it was opposed by the hospitals that were identified as not fulfilling these certain criteria (Ciutan et al., 2012) and by the affected patients</li> <li>• One year after the Decision was introduced, 21 hospitals were transformed into elderly nursing homes; 17 of the closed hospitals were reopened either as hospitals or health care centres (and after public and political pressure, many other hospitals were reopened in following years)</li> </ul>
<p>2014 – Approval of the National Plan for Hospital Beds for 2014–2016 (Government Decision 449/2014):</p> <p>The Plan envisages a gradual reduction in the number of hospital beds, setting maximum limits on the number of beds: 121 579 in 2014, 120 579 in 2015 and 119 579 in 2016 (see section 4.1.2). The objective was to support the national policy of shifting the balance of health care services to primary care, ambulatory specialist care and community care and away from inpatient care.</p>	<ul style="list-style-type: none"> <li>• Policy formulated following World Bank and IMF recommendations, and in line with the National Strategy for Hospital Rationalization (see above)</li> <li>• Implemented via yearly orders, issued by the Minister of Health, detailing plans for the bed reduction for each district</li> </ul>
<p><i>Paying health workers</i></p>	
<p>2015 – Increase in the salaries of health personnel (Emergency Ordinance 35/2015):</p> <p>Salaries of all medical personnel were increased by 25% from October 2015. The objective was to stop doctors emigrating abroad (many doctors moved abroad after Romania joined the EU and the emigration intensified after 2010 when, due to the financial crisis, all public sector salaries were reduced by 25%); the more immediate objective was to prevent a general strike of doctors.</p>	<ul style="list-style-type: none"> <li>• One of the solutions proposed by the government was to formalize the 'gifts' received by medical personnel (allowed by the Patients' Law), but this was rejected by the public and medical associations</li> <li>• This measure is part of a more comprehensive reform of salaries in the public sector that aims to double doctors' salaries within three years; these reforms are still under debate</li> </ul>
<p><i>Patients' empowerment</i></p>	
<p>2013 – Amendment to Law 95/2006, implementing the Directive of the European Parliament and Council no. 2011/24/EU on the application of patients' rights in cross-border health care:</p> <p>Transposition of Directive 2011/24/EU on the application of patients' rights in cross-border health care.</p>	<ul style="list-style-type: none"> <li>• Implementation supported by all key stakeholders</li> </ul>
<p><i>Quality of health care services</i></p>	
<p>2015 – Establishment of the National Authority for Quality Management in Health Care (Governmental Decision 629/2015):</p> <p>Established the National Authority for Quality Management in Health Care and set out its tasks (see section 2.3); the Authority is under direct supervision of the Prime Minister who appoints its president. The objective was to extend the quality assurance to other providers in the health care system.</p>	<ul style="list-style-type: none"> <li>• Created by the reorganization of the National Commission for Hospital Accreditation (established in 2008)</li> </ul>

## 6.2 Future developments

The National Health Strategy 2014–2020, which contains strategic objectives in the areas of public health and health care services as well as system-wide measures (see sections 2.5 and 7.1), is seen to be the main document guiding current and future health care reforms. It is the first Strategy with an allocated budget. However, there are no clear, detailed plans for the specific objectives included in the Strategy and its implementation is dependent on the political will. However, it is expected that such plans will be developed in the future, as this is the condition for accessing EU structural funds, with the existence of the Strategy itself also being a condition of accessing such funds.

Reforms under debate in the second half of 2015 focused on the most pressing problems facing the health care system, including lack of sustainable financing and underfunding of the health care sector, shortages of human resources, and imbalances in the use and provision of health care services. With regard to financing, a legislative proposal by the Minister of Health that is currently being debated aims to decrease the financial burden of the public budget by allowing private practice in public hospitals. Additional revenues from private practice could be used for paying medical staff. The benefit to patients would be an increased choice of doctor, although this would be limited to those who can afford to pay for private care. The law was passed in the first chamber of the parliament and was, at the time of writing, subject to final debate in the second chamber. The government is also planning to develop a retention strategy for medical staff although no specific proposals have been brought forward as yet. There remains a focus on shifting care from hospitals into the community, with community services being among the least developed care settings. A working group has been established at the Ministry of Health seeking to support the development of new policies, the revision of existing legislation and elaboration of standards, norms and practice guidelines necessary for the development of a countrywide community care system. The system would include a network of community nurses and health mediators who could reach the vulnerable Roma population.

Other projects under debate include countrywide extension of the telemedicine system, currently implemented through several projects covering emergency services (see section 5.5), especially in remote areas (Danube Delta) and the further development of electronic solutions, with the Electronic Health Record currently being implemented (see section 4.1). With the establishment of the National Authority for Quality Management in Health Care in 2015, there is expectation of the development of a national strategy for quality assurance



in health care and an expansion of the accreditation process to include health care providers other than hospitals (see section 2.3). Further efforts are aimed at enhancing the transparency of the health care system, as acknowledged in the Ministry of Health 2014–2020 National Health Strategy (see section 7.1).

While these proposals were put forward by the previous government, the new government in place since November 2015 (see sections 1.3 and 2.2) is not expected to change the direction of health policy nor to introduce any major legislative initiatives before the next parliamentary elections in 2016.



## 7. Assessment of the health system

The main objectives of the health system, as stated in the 2013–2016 Government Programme, are to achieve a health system that enables and supports the attainment of the best possible health of the citizens and that contributes to improving their quality of life. These goals are also addressed by the National Health Strategy 2014–2020, the main multiannual planning document for the health sector, although there is no current assessment of the Strategy’s implementation process.

The national social health insurance system covers all Romanian citizens and provides a comprehensive benefits package. OOP payments have increased in recent years, from 15% of THE in 2003 to 19% in 2014, although private spending on health is not considered to be catastrophic. Moreover, the proportion of the population reporting an unmet medical need due to lack of affordability decreased in recent years; however, it remains high compared to the EU average (9.1% in Romania vs. 2.4% in the EU, in 2013). On the whole, health care financing in Romania is somewhat progressive, with health insurance contributions being the main source of health care financing and with vulnerable population categories exempted from the contribution payment and cost sharing.

While every insured person has access to the same health care benefits regardless of their socioeconomic conditions, there are inequities in access to health care, with worse access in rural areas, for socioeconomic groups such as pensioners, the unemployed, self-employed and agricultural workers, the Roma population and women. Furthermore, there are differences in health outcomes between rural and urban areas as well as between the genders.

While population health is improving overall, life expectancy and mortality in Romania lag behind the EU averages. Romania also scores poorly in terms of mortality that is considered amenable to timely and effective health care or that is preventable through wider public health policies, when compared to EU averages.

Provision of health care services in Romania remains characterized by overprovision of highly specialized inpatient care and underutilization of primary and community care. This can to some extent be seen as a legacy of the Semashko model of care and is perpetuated by poor planning and allocation decisions.

In general, information on the quality of care is poor. This is largely because quality assurance in health care is still under development and data on the quality of care used in international comparisons are not available in Romania, or data are unreliable. Also, patient safety indicators are not usually collected by health care providers, despite safety being a concern among Romanian patients.

There are no recent national studies on public satisfaction with the health system. According to Eurobarometer surveys, there are relatively low levels of satisfaction with the overall quality of health care among the Romanian population compared to the EU average and this perception has not changed in recent years.

Political corruption is perceived to be a major problem in the country, including in the health care sector, due to the high prevalence of informal payments. The new Strategy recognizes the need to improve transparency in both decision-making and citizens' involvement. It has to be noted, however, that patients' associations are increasingly making their voice heard in policy-making. The performance of the health system is not generally evaluated and it is therefore difficult to assess whether the objectives set by the government are met.

## 7.1 Stated objectives of the health system

The Romanian health system is centered around the patient and is based on the principles of universal access to quality and equitably financed health care services. The Government's objective for the health system, as stated in its 2013–2016 Government Programme, is to achieve a health system that enables and supports the attainment of the best possible health of citizens and that

contributes to improving their quality of life (Government of Romania, 2013). The Programme comprises 51 specific objectives for the health system, which are centered around seven main areas:

- **Strengthening the health system:** developing a strategy for developing and modernizing the Romanian health system, promoting health in all public policies and evidence-based health policies, reviewing the financing system and implementing a rigorous control of public spending, improving the use of emergency services by strengthening integration of care;
- **Health system management:** reorganizing the health insurance system, creating the institutional framework for improving the quality of health care services, increasing the role of primary care in the improvement of health system performance, improving the management of European funds to finance public health policies, implementing screening programmes for the early detection and treatment of non-communicable diseases, depoliticizing health system management by providing career and professional development opportunities (to date, hospital managers – being appointed by the political part(ies) in power – had few career opportunities unless they were politically involved), redefining the health information system and developing an Integrated Information System for Public Health (SISSP);
- **Organization of health care services:** increasing access to basic health care services, promoting the coordination and integration of health care services, coordinating health care by providing pathways for patients based on disease categories, developing multifunctional outpatient health centres that offer care in a number of medical specialties as well as laboratory and other services, implementing and monitoring instruments to ensure the quality and safety of health care services, assuring professional management of the national health programmes, providing an efficient information system that integrates all components of the health system horizontally and vertically;
- **Health system financing:** ensuring a basic package of health care services to all citizens including emergency care, preventive services and national programmes, providing an additional medical package for privately insured citizens with an insurance deductible capped at a level set by the government, regulating the participation of producers of medical technologies in the financing of the increased cost of using these technologies;

- **Human resources:** developing projects to attract staff, including subsidizing rents for resident doctors and young professionals practising outside large cities;
- **Infrastructure:** accessing additional financial resources from European funds and through public–private partnerships, especially for the EC’s Financial Framework 2014–2020, for infrastructure projects, including completing the national infrastructure expansion of the Mobile Emergency Service for Resuscitation and Extrication (SMURD), renovating and equipping hospital outpatient departments, developing and implementing e-health care services nationwide;
- **Medical technologies:** developing and implementing an HTA policy, developing specific policies for key health technologies, establishing the National Pharmaceutical Company, compensating medicines for low-income pensioners.

Many of these specific objectives are further supported by the National Health Strategy for 2014–2020 (see section 2.5). At the time of writing (December 2015), no official report has been published on the Strategy’s implementation progress.

Intersectorality has become an important issue following Romania joining the EU in January 2007, when Romania had to adapt its policies to the EU requirements. Thus, the main policy frameworks involving an intersectoral approach were issued as obligations that Romania undertook as an EU Member State, in conformity with agreed EC objectives and the methodological guidelines of the EC. These are: the seven-year National Development Plans 2007–2013 and 2014–2020 and the National Sustainable Development Strategy 2013–2020–2030.

The 2007–2013 National Development Plan indirectly addressed the most important health determinants, including economic development, transport infrastructure, environment, social inclusion and living standards. The Plan has not been evaluated. The 2014–2020 National Development Plan followed the same goals, extending the range of health determinants addressed (see section 2.6) and the National Sustainable Development Strategy 2013–2020–2030 “Keep healthy what keeps you in good health” includes actions that have as common objectives the reduction of negative environmental impacts and the improvement of human health and well-being (see section 2.6). In addition, there are a number of other strategic documents that address health (directly or indirectly) and require intersectoral cooperation in their implementation (see section 2.6). Furthermore, the National Health Strategy 2014–2020

mentions, among its strategic objectives, “Inter-sectorial cooperation for better health status of the population, especially vulnerable groups” (Ministry of Health, 2014).

## 7.2 Financial protection and equity in financing

### 7.2.1 Financial protection

The national health accounts show that OOP spending increased from 15% of THE in 2003 to 18.7% in 2013 (from 1.6 to 6.6 billion lei, representing an increase of around 300%) (see section 3.4). This increase can in part be attributed to the implementation of austerity measures between 2009 and 2010 (National Institute of Statistics, 2015a; see also section 1.2). In 2013, co-payments for inpatient care were introduced (see section 6.1). OOP spending increased to 18.9% in 2014.

Data on household expenditure show that, in 2014, spending on health represented 4.6% of total expenditure, equating to around 10% of households’ incomes after subsistence needs have been met. This presents a steady increase from 2.7% in 2001 to 4.5% in 2010, with the proportion remaining stable thereafter (National Institute of Statistics, 2015c). The share of health spending differs across different population groups, ranging, in 2014, from 1.7% for farmers to 2.4% for the self-employed, 2.7% for employees, 3.0% for the unemployed and 8.1% for pensioners<sup>7</sup> (National Institute of Statistics, 2015c). The latter can be explained, in part, by the inclusion in 2010 of all pensioners with incomes of over 740 lei a month (approximately €155) in the pool of NHIF contributors (see section 6.1). However, this has not led to catastrophic expenditure for this group.

#### **Affordability of health care**

Although OOP payments have seen a steady rise since the early 2000s, the proportion of the population reporting an unmet medical need because of the price of health care services decreased from 11.3% in 2007 to 9.1% in 2013. However, the share is higher compared to the EU average of 2.4% in 2013 (Eurostat, 2016).

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<sup>7</sup> According to the WHO definition, expenditure is viewed as catastrophic whenever it is greater than or equal to 40% of a household’s non-subsistence income, i.e. income available after basic needs have been met. The expenditure for basic needs for Romanian households is 62.5% of total income (65% for pensioners). If pensioners spend 8.1% of their total income on health, this is equivalent to 23% of their non-subsistence income, which is much lower than 40% (4.6% of total income and 12.2% of non-subsistence income for the general population).

There have been no measures aimed at strengthening financial protection in recent years. Following the economic crisis, the financial burden on individuals may have increased given developments in the public sector of a reduction in salaries by 25% and recruitment freeze, as well as in the private sector, which has seen lower activity and job cuts.

### 7.2.2 Equity in financing

Health care financing in Romania can be seen to be proportional with the main source of health care financing, health insurance contributions, being the same for everybody, at 10.7% of gross income, irrespective of income level. There is a difference between employees and the self-employed in that the former share their contribution (5.5%) with their employers (5.2%) while the self-employed cover the entire contribution rate (10.7%) (see section 3.3.2).

The financing system results in a vertical redistribution of resources from those better off to some population categories that are exempted from the contribution payment (see section 3.3.1). A further factor contributing to equity in financing is the legislation that protects low-income categories by exempting them from cost sharing.

Some initiatives to increase equity in financing were introduced in the last decade, but their effects have not been evaluated. Among these, Law 95/2006 required some non-contributing population groups, such as pensioners with incomes higher than the pension taxation base, to pay contributions from 2010 in an effort to increase equity of financing, as workers with salaries lower than pensioners' incomes and with dependent children had to pay health insurance contributions. The exemption of vulnerable population groups from co-payments for inpatient care introduced in 2013 (see section 3.4.1) was also intended to increase equity in financing. There are currently no other reforms or reform initiatives aimed at increasing equity in financing.

## 7.3 User experience and equity of access to health care

### 7.3.1 User experience

There are no recent national studies on public satisfaction with the health system. However, data from the 2013 Eurobarometer survey suggest that the Romanian population has relatively low levels of satisfaction with the overall quality of health care, with only 25% rating the overall quality of the health care system



as good, compared to an EU average of 71%. This perception appears not to have changed over the years, with the share of respondents assessing the quality of health care as good the same as it was in the 2009 Eurobarometer survey (EC, 2014). The poor level of satisfaction with the health system may further be related to the low level of health care financing and decreasing number of health care personnel, which translate into additional costs for patients and longer waiting times.

According to the law, public hospitals should systematically assess patient satisfaction with health care services (see section 2.9.1). Unofficial interviews with hospital managers on the results of these patient satisfaction questionnaires revealed that patients appear to be satisfied with the health care services provided but not with the attitudes of the nurses and other caregivers, or with the food and accommodation.

Patients have the right to be involved in their treatment decisions (see section 2.9.2) but there is no empirical evidence of the extent to which patients exercise this right. There are few data on the experience of patients when accessing services and receiving treatment. There is also no information on hospital waiting times. Internet forums seem to be the only source for such information (see Table 2.2).

### **7.3.2 Equity of access to health care**

According to the law, every insured person has access to the same health care benefits, regardless of their income or socioeconomic status. The main difference is between the insured and the uninsured, with the former entitled to a comprehensive basic benefits package while those without insurance have access to only a minimum benefits package, including emergency care, treatment of communicable diseases and care during pregnancy (see section 3.3.1).

In practice, however, there is inequity in access to health care, with differences among various socioeconomic groups and between urban and rural areas. In 2013, 10.4% of Romanians reported unmet health care needs because care was too expensive, it was too far to travel or there was a waiting list, compared to an average of 3.6% in the EU (Eurostat, 2016). This figure is only slightly lower than in 2007, when 12.3% of respondents reported having unmet health care needs (Eurostat, 2016). Affordability has been reported to be the main reason for perceived unmet health care needs in Romania, at 13.2% in 2013 (Eurostat, 2016). The main barriers to accessing health care services

are: the inequitable geographical distribution of health facilities and health care workers (see Chapter 5); and lack of information and knowledge about health care services (see section 1.2).

### **Rural–urban inequities in access**

Inequity in access between the urban and rural populations can be found for different types of care, with people living in urban areas having better access. This was the case for specialist health care services (measured by the level of unmet need for such services; National Institute of Statistics, 2014b) and preventive services (measured by flu vaccination rates, and mammography and smear test rates; National Institute of Statistics, 2015b).

The differences in access to health care between rural and urban areas are also visible in the unequal distribution of health workers and facilities across the population. A study on access to primary health care in western and central regions of Romania showed that, in 2010, there was one family medicine physician for 1717 population in urban areas, while in rural areas there was one family medicine physician for 1937 people (Vâlceanu et al., 2012); the average for all regions in the country was one physician per 1477 people in 2010 (National Centre for Health Statistics and Information, 2014). The situation is worse for other types of health care professionals, such as dentists, community nurses and health mediators (Vâlceanu et al., 2012). There are also high variations in the hospital beds to population ratios among the 42 districts of Romania (including Bucharest), with this ranging from 2.9 to 10.4 hospital beds per 1000 people (National Centre for Health Statistics and Information, 2014). This inequitable geographical distribution of health care facilities implies longer travel distances for people living in rural areas, which is further exacerbated by poor or missing transport infrastructure and lack of financial means to pay for travel among some population groups. Lack of transportation means was the third most common reason for declaring limited access to specialist care services (after lack of money and neglecting the health need) and it was more pronounced in rural areas (National Institute of Statistics, 2014b).

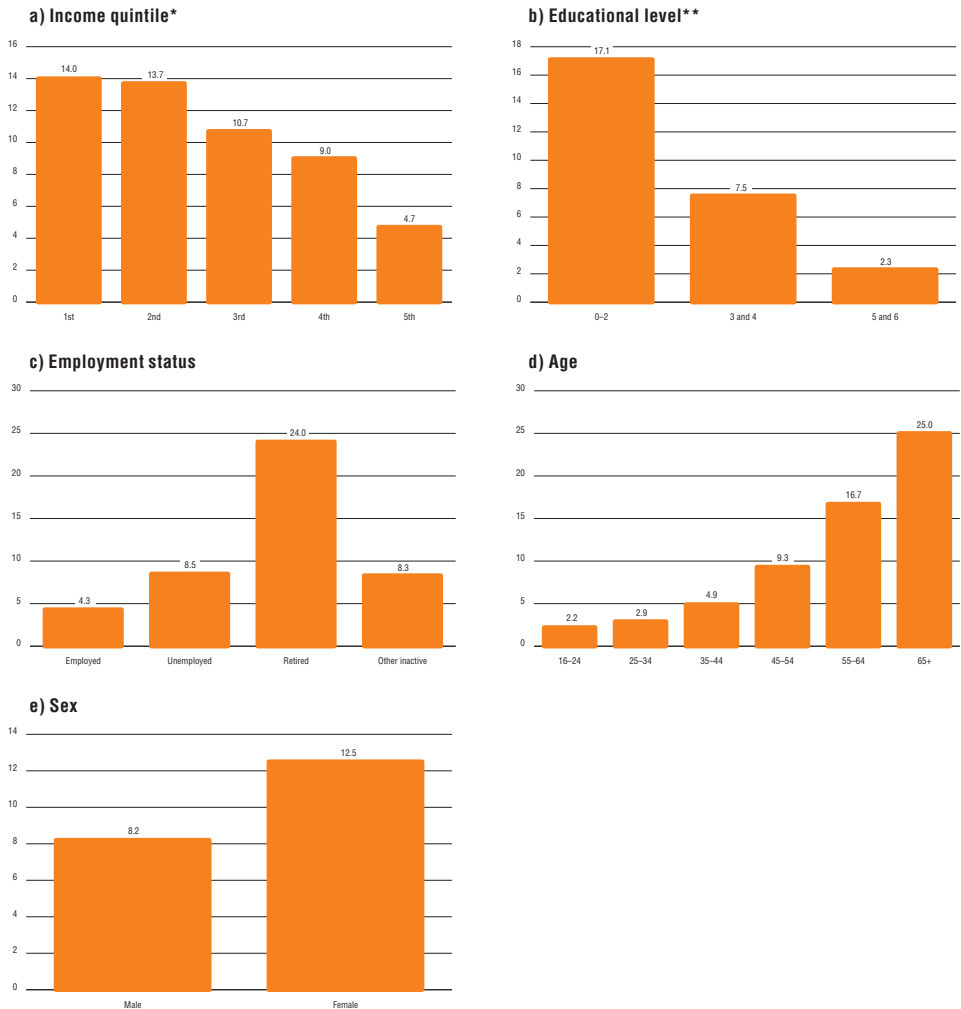
Rural–urban differences in access to health care are perceived to be a major problem in Romania and specific measures have been implemented to improve access to care. An overview of such measures in the area of primary care is provided in section 5.3. The impact of these initiatives has not been evaluated and routine statistics do not show changes in the rural–urban gap.

### Socioeconomic inequities in access

Self-reported unmet need varies by income, educational level, employment status, age and sex (see Fig. 7.1a–e). In 2012, the percentage of people reporting that they were not able to access specialist health care services when in need was highest among pensioners (27.7%), followed by the unemployed (13.2%), the self-employed (12.9%) and agricultural workers (10.7%) (National Institute of Statistics, 2014b).

**Fig. 7.1**

Self-reported unmet medical examination in Romania (%), 2013



Source: Eurostat, 2016.

Note: Unmet need is due to care being too expensive, too far to travel or a waiting list. \*People in the 1st income quintile are the poorest and those in the 5th income quintile are the richest; \*\*Education levels 0–2: pre-primary, primary and lower secondary education; levels 3 and 4: upper secondary and post-secondary non-tertiary education; levels 5 and 6: first and second stages of tertiary education.

Florescu and colleagues (2012), in a qualitative study within a research project co-funded by the EU, found that co-payments represented the main barrier to accessing health care for Romanian pensioners living in a city: “Pensions are very low, people cannot afford these payments, and they cannot cope with them” (Florescu, Pinția & Galaon, 2012, p.34). Study participants objected to co-payments because they already had limited access to some paid services, such as dental care.

Not being able to afford care was also the main reason for not accessing care given by the unemployed and self-employed. For specialist care, lack of financial means was the reason for not seeking care for 88.5% of the self-employed and 82.2% of the unemployed who did not seek care (National Institute of Statistics, 2014b).

Access to health care is also reported to be poor among the Roma population, with almost half the Roma population not having statutory health insurance cover (see section 1.1). The introduction of the national programme of health mediators in 2002 sought to improve access to care for the Roma but after 2008 the number of health mediators declined (see section 5.14). The programme is still supported by a range of projects (see section 5.14).

## **7.4 Health outcomes, health service outcomes and quality of care**

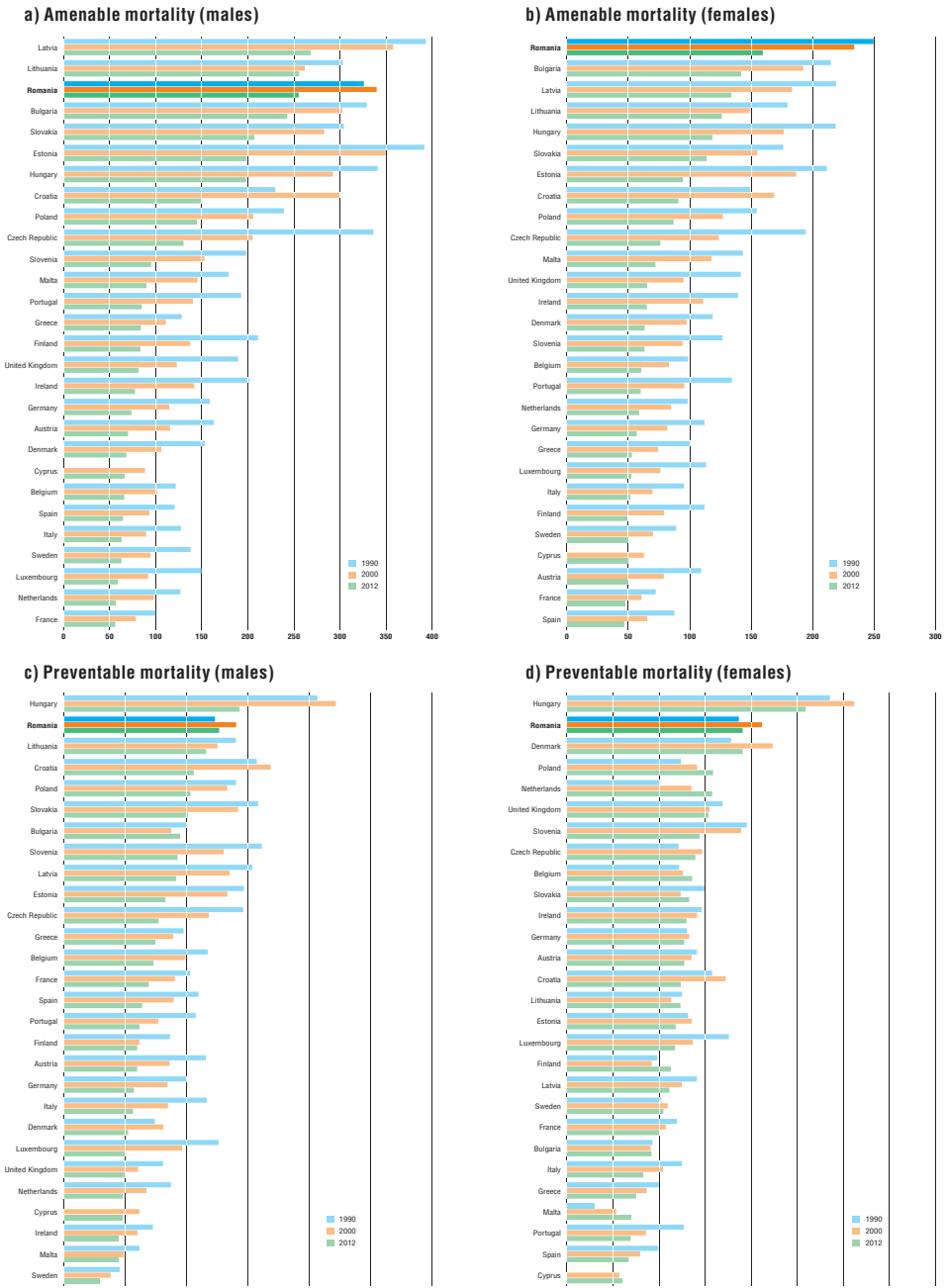
### **7.4.1 Population health**

Life expectancy at birth for the general population has increased over recent decades, especially since 1995, but it remains lower than the EU average (see section 1.4). In terms of healthy life years, Romania also performed somewhat worse than the EU average, at 57.9 years for women and 58.6 for men compared to 61.5 and 61.4, respectively (see section 1.4 and Eurostat, 2016).

There are no studies showing the association between the improvement in population health and risk factors (see section 1.4). While economic growth and some public health interventions, such as the national programmes on HIV/AIDS, TB and reproductive health, may be associated with a decreasing trend in maternal and infant mortality (see section 1.4), Romania underperforms compared to EU averages in terms of mortality that is considered amenable to timely and effective care (e.g. treatment, diagnostics) and that is preventable through wider public health policies (see Fig. 7.2a–d).

**Fig. 7.2**

Amenable and preventable mortality rates in EU countries, all causes, 1990–2012 (selected years)



Source: WHO, 2014.

Note: Sorted from highest to lowest values in 2012.

## 7.4.2 Health service outcomes and quality of care

### Quality of care

Data on the quality of health care services in Romania remain scarce. Available data show a decline in immunization levels, with, for example, vaccination rates against diphtheria–tetanus–pertussis and poliomyelitis falling from 99% in 2000 to 89% in 2011 (see section 1.4). Influenza vaccination rates in adults are also low: only 4.9% of the urban population and 2.9% of the rural population reported having been vaccinated against influenza in 2014. Declining immunization rates may point to a low quality of preventive care although it is difficult to be certain in the absence of studies that have evaluated services.

Overall, the quality assurance system in health care is still under development (see section 2.8.2). Data used in international comparisons of health care quality, such as hospital admissions for certain chronic conditions or in-hospital mortality rates, are not available in Romania. Data that are collected, such as rates of nosocomial infections in hospitals, are not reliable (see section 5.1).

### Appropriateness of care

The provision of health care services in Romania remains characterized by overuse of highly specialized inpatient care and underuse of primary and community care (see section 5.4). There is also evidence of inappropriate use of emergency care, which may be an indication of shortcomings in primary care, with many patients directly accessing related services in hospital or calling an ambulance, even for minor health problems; for example, in 2014, over 60% of cases in the Bucharest and Ilfov district were resolved by ambulance staff at the patient's home, meaning they did not require further treatment in hospital (see section 5.5). There is a tendency among patients to bypass their family medicine physician and to access specialists directly, while there is inadequate provision of ambulatory and community care services as well as of other forms of care such as rehabilitation care, for which there are long waiting times (section 5.7), LTC and palliative care, with only 5.4% of the needs for palliative care being covered (see section 5.10).

### Patient safety

Data on patient safety are not routinely collected by health care providers. Safety is a concern among Romanian patients and 67% of respondents to the 2013 Eurobarometer survey thought that patients were likely to be harmed by hospital care, compared to 53% in the EU on average, while 61% thought that patients were likely to be harmed by non-hospital care (compared to 50% in the

EU on average) (EC, 2014). However, according to the same survey, only 17% of Romanian respondents reported actually having experienced an adverse event when receiving health care compared to 27% in the EU on average.

### 7.4.3 Equity of outcomes

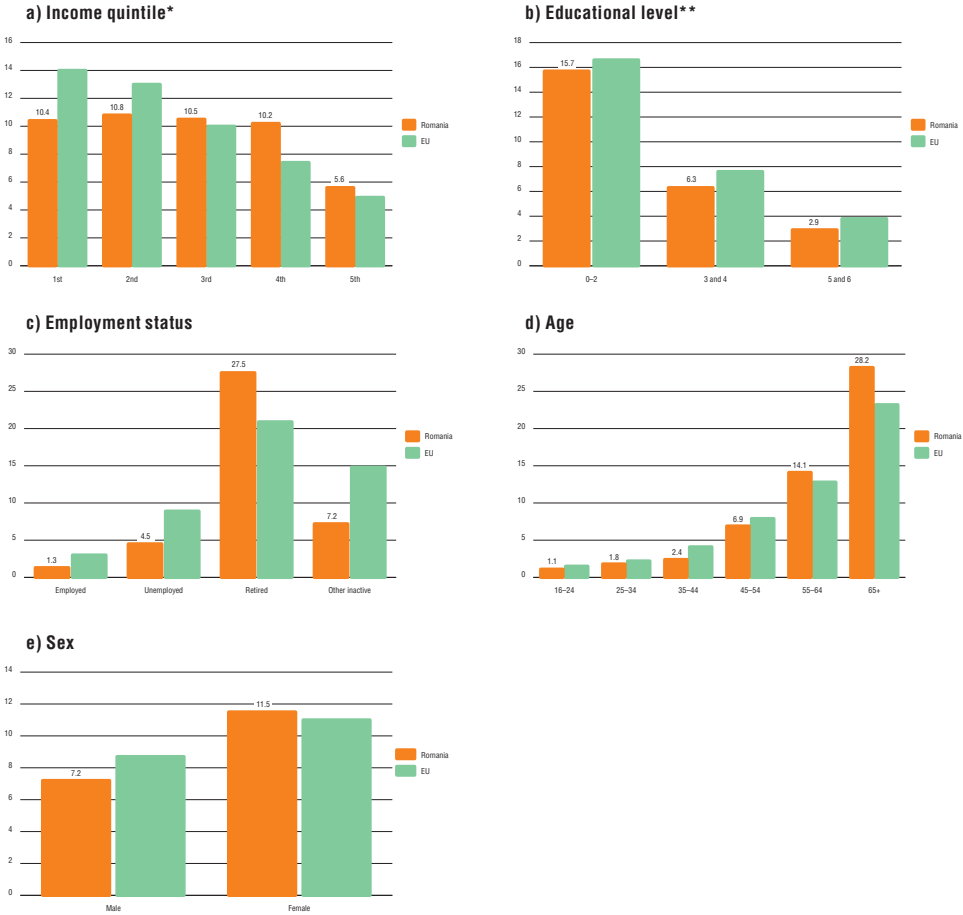
There are differences in health outcomes among socioeconomic and age groups, geographical areas and males versus females. However, evidence on these differences is somewhat patchy.

A 2014 population health survey on self-perceived health among those aged over 15 years found the proportion of respondents with less than good health to be highest among those with low educational attainment, at 35.5%, and among older people (75+) (85.8%) (National Institute of Statistics, 2015b) (see also Figs. 7.3a–e).

In 2014, self-perceived health in the adult population was poorer in urban areas (26.8% reported having less than good health) compared to rural areas (24.9%) and among people living in Bucharest–Ilfov (31.4%), the south (27.8%) and the south-east (27.5%) of the country (National Institute of Statistics, 2015b). Mortality levels are lower in urban areas compared to rural areas (13.9% and 9.4%, respectively, in 2014) (NIPH, 2015e). The highest mortality rates are observed in the districts in south Romania, where self-reported health status is lower than in other parts of the country. There is also a gap between urban and rural areas with regards to infant mortality – 6.5% in urban areas and 11.5% in rural ones (see section 1.4). Geographical differences are also observed for standardized mortality rates for cardiovascular diseases – differences between districts ranged from 339.3 to 582.9 deaths per 100 000 population in 2014. These differences may be associated with a range of socioeconomic factors, including differences in income, education, housing, lifestyle, access to health care facilities, etc. (NIPH, 2015a). Rural–urban differences can also be found in the incidence of diabetes, with more cases occurring in the urban areas (47.4% vs. 40%). The prevalence of high blood pressure and cerebrovascular diseases is higher in the districts of west and south Romania. Differences in prevalence are also registered for other diseases, e.g. tumours are more frequent in the west of Romania while digestive diseases are more prevalent in the east (Domnariu et al., 2014).

Self-perceived health in the population over 15 years old is worse among women (in 2014, 29.9% reported having satisfactory, bad or very bad health in 2014 compared to 21.8% among men) (National Institute of Statistics, 2015b). However, the mortality rate in males is higher than in females – 12.2 per

**Fig. 7.3**  
Self-perceived health in Romania and the EU (%), 2013



Source: Eurostat, 2016.

Notes: Perception of own health status as being bad and very bad. \*People in the 1st income quintile are the poorest and those in the 5th income quintile are the richest; \*\*Education levels 0-2: pre-primary, primary and lower secondary education; levels 3 and 4: upper secondary and post-secondary non-tertiary education; levels 5 and 6: first and second stages of tertiary education.

100 000 in 2014 for males and 10.6 for females. Gender imbalances are more pronounced for certain causes of mortality, such as TB: in 2014, the mortality rate for TB was 6.5 per 100 000 for males compared to 1.8 for females in urban areas and 10.0 for males compared to 2.7 for females in rural areas. Deaths from causes amenable to health care during 1996–2008 (the latest study available) were substantially higher among men than women (Karanikolos & McKee, 2011). For men, rates fell by 2.06% per year between 1996 and 2002, and by 3% between 2002 and 2008. For women, the corresponding figures were 2.12% and 3.92%. Gender differences can also be seen in the morbidity data; for example, the incidence of diabetes registered by family medicine physicians



was higher in males than in females between 2007 and 2009 (43.18 cases per 100 000 inhabitants in 2007 for males vs. 30.13 for females), but from 2010 to 2014, the incidence of diabetes was higher for females (46.67 vs. 41.15 cases per 100 000 inhabitants in 2014) (National Centre for Health Statistics and Information, 2015).

## 7.5 Health system efficiency

### 7.5.1 Allocative efficiency

The methods used for resource allocation in the health care sector, for example, between different types of health care services or between current and investment expenditure, are unclear. Decisions on resource allocation are not based on evidence about effectiveness or cost–effectiveness, and such information is usually not available (see section 2.7.1). Overall, there is little effort to use available data more systematically to inform decision-making and, as a result, scarce resources are often used in ways that do not necessarily support the goals of the health system. One example of suboptimal resource allocation is the continued reliance on acute hospital care while primary care and community services remain underdeveloped (see Chapter 5). There are also examples of costly equipment being procured that is not used, because of lack of staff or lack of funds for installation or consumables (Digi24, 2012).

### 7.5.2 Technical efficiency

#### Hospital care

There has been improvement in some indicators of hospital use over the years, with, for example, the average length of hospital stay steadily falling and converging to the EU average (see section 4.1.2), along with an increase in the share of day cases (see section 5.4.1). However, there remains considerable scope for further improvement, as the share of day surgery remains low compared to other countries, e.g. for cataract surgery (see section 5.4.1).

#### Pharmaceutical care

Apart from generic prescribing there are currently no specific measures in place aimed at improving the cost–effectiveness of prescribing (see section 2.8.4). A defined pharmaceutical policy with clear and agreed objectives is lacking and regulation of the pharmaceutical market has so far been more reactive and ad hoc than part of an overarching long-term policy. There is concern about the underuse of generics in Romania, which has been attributed to the claw-back

tax, the price-setting procedures and a lack of incentives encouraging the use of generics (see section 2.8.4). There are also concerns that the lower prices of some medicines in Romania compared to other EU countries may lead to parallel exports, which may threaten access to certain medicines. There is some anecdotal evidence that access to certain new treatments is difficult, with costs being the main obstacle. Furthermore, the list of reimbursed drugs was not updated between 2008 and 2015, which means that patients did not have access to new treatments in that period.

### **Human resources**

Apart from some policies aimed at attracting physicians to rural areas (see section 5.3) and some measures to halt migration of health care workers abroad (see section 4.2.2), there have been no policies intended to change the mix of skills or improve planning of human resources in the health care sector (see section 2.8.3).

## **7.6 Transparency and accountability**

### **Transparency**

Health policies follow the political agenda of the party in power (see sections 2.3 and 6.1). They may also include objectives promoted by the EU or international donors and commitments to the funding agencies, such as the IMF. Other actors, such as professional organizations, trade unions, employer and provider organizations, patient groups and NGOs usually have little influence on policies, although the voice of the public has been increasingly heard in policy-making (see sections 2.9.5 and 6.1). Law 52/2003 on Decisional Transparency in Public Administration obliges public administration at all levels to submit for public debate or consultation all decisions before they come into force (Official Gazette, 2013). This can be viewed as the most important means for enhancing transparency. Assessment and evaluation of policies are rarely performed (see sections 2.3 and 6.1).

Patients in Romania are less involved in health policy decision-making than their western European counterparts, but participation has increased in recent years. The number of patient organizations has risen and they have become more effective in making their voices heard. Patients' associations increasingly take part in various initiatives, such as EU-financed projects (see section 2.9.5). They were also consulted during the development of the Framework Contract (see section 2.8.1).

While patients' rights to different types of information are assured by legislation, there is no formal evidence on how well-informed patients are about their rights and if the available information is useful (see section 2.9.1).

Informal payments are firmly rooted in Romanian culture and are highly prevalent (see section 3.4.3). In 2015, Romania ranked 58th on the world corruption perception index, after Poland (30th), the Czech Republic (37th), Hungary and Slovakia (50th, jointly) (Transparency International, 2016). However, recent political developments may indicate that the importance of improving transparency is being increasingly recognized. The new Strategy acknowledges the need for greater transparency in decision-making and for the involvement of citizens (Ministry of Health, 2014).

### **Accountability**

Health policy priorities are set by the government in the government programme, which is approved at the beginning of the political mandate following elections. The key multiannual planning document in the health care sector is the National Health Strategy, which was first launched in 2004, mainly as a prerequisite for a World Bank loan. Its implementation or impact have not been monitored or evaluated. In the same way, the Ministry of Health developed its Health Strategy 2014–2020 as an ex-ante condition to accessing EU structural funds. It was developed in a more participatory way than the 2004 strategy, with public debates and a dialogue with the civil society (Ministry of Health, 2014).

Performance of the health system is mostly not assessed. The current information systems do not allow for identifying health priorities, the rapid evaluation of needs or for providing feedback to decision-makers (see section 2.7.1). Performance is partly assessed through international surveys and studies or locally financed projects.



## 8. Conclusions

Since the early 1990s, the Romanian health care system has undergone a major transformation, having replaced the Semashko model with a social health insurance system. The legacies of the former model of health care organization and provision are still visible in the financial imbalances and chronic underfunding of the system, overreliance on hospital care, underdevelopment and underuse of other types of care, and the lack of comprehensive regulations and strategies in many important areas.

The need to achieve financial stability has so far dominated the reform agenda (see Chapter 6) and this goal is yet to be achieved. Only a quarter of the population effectively contribute to the social health insurance system, which means that the health care budget remains constrained and attempts to increase the pool of people who pay into the system have so far been unsuccessful. The financial crisis of 2008 further impacted the ability to secure sufficient public health care funding. Yet, although expenditure on the Romanian health system remains low compared to other EU countries, per capita health care expenditure saw a five-fold increase between 1995 and 2013 (see section 3.1) and the large majority of the population (86.1% in 2014) is covered and entitled to a broad range of benefits. Health outcomes have also improved in many areas (see section 1.4), albeit with differences between different population groups and between rural and urban areas.

Although the number of hospital beds decreased in recent years, health care provision remains over-reliant on inpatient care, with the number of consultations in primary and ambulatory care per person per year in Romania among the lowest in the EU (see section 4.1.2). This situation is exacerbated by lack of access to quality primary care, in particular in rural areas, requiring patients to use ambulance or hospital services, with many bypassing the primary care system, where available, altogether.

A related challenge is a shortage of health workers, with the number of physicians and nurses per population in Romania being among the lowest when compared to other EU Member States. Yet, a clear and comprehensive health workforce strategy is still lacking and only ad hoc measures have been taken to improve the retention of health workers in the sector and to reduce the rate of migration to other EU countries.

Effective mechanisms for assuring the quality of health care are not yet in place, but the establishment of the National Authority for Quality Management in Health Care in 2015 is expected to develop measures to enhance the quality of care. Other areas that require systematic attention include the integration of health care services and sectors, the development of community care, the introduction of incentives to strengthen and develop prevention and promotion services, and increasing the use of evidence in decision-making at all levels of care.

Given the complexity and multitude of problems, the task that Romanian health policy-makers face remains challenging. According to the latest (2015) report of the European Commission, “the Romanian health care system is characterized by poor results of treatment, poor financial and geographical accessibility, low funding and inefficient use of resources. There is high reliance on inpatient services and the system suffers from the extensive inefficient hospital network, the weak and fragmented referral networks, and the low proportion of spending directed to primary health care. In addition, the widespread use of informal payments in the public health care system further reduces the accessibility, efficiency and quality of the system” (EC, 2015b, p.5).

While health care reforms have been stepped up (EC, 2015b), recent and ongoing health care reforms have been perceived by both patients and health care professionals as being fragmented and poorly coordinated, with a focus on achieving financial balance at the expense of long-term goals and demonstrating a lack of continuity. A major challenge remains ensuring stability in governance – since 1989 there have been 26 ministers of health and 17 presidents of the NHIH. There is also a need for concerted effort in addressing corruption in health care (and other) sectors (see section 1.3).

It is expected that in the coming years the new National Strategy for Health will be implemented in a better way and with better outcomes compared to former strategies, and that the use of funds available from the EU and their impact on the performance of the health system will be increased.

## 9. Appendices

### 9.1 References

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## 9.2 Useful web sites

Coalition of Patients with Chronic Diseases Organizations from Romania (Coaliția Organizațiilor Pacienților cu Afecțiuni Cronice din România):  
<http://www.copac.ro>

European Health Insurance Card:  
<http://www.ceass.ro/index.php?lang=en>

International Organization for Migration Office in Romania:  
<http://www.oim.ro/en>

Institute of Pneumoftiziology "Marius Nasta" (Institutul de Pneumoftiziologie "Marius Nasta"):  
<http://www.marius-nasta.ro>

Ministry of Health (Ministerul Sănătății):  
<http://www.ms.gov.ro>

Ministry of Labour, Family, Social Protection and Elderly (Ministerul Muncii, Familiei, Protecției Sociale și Persoanelor Vârstnice):  
<http://www.mmuncii.ro/j33/index.php/ro>

Mobile Emergency Service for Resuscitation and Extrication (Serviciul Mobil de Urgență, Reanimare și Descarcerare):  
<http://www.smurd.ro>

National Agency for Quality Management in Health Care (Autoritatea Națională de Management al Calității în Sănătate):  
<http://anmcs.gov.ro/web/ro>



National Agency for Medicines and Medical Devices:

<http://www.anm.ro/anmdm/en>

National Health Insurance House:

<http://www.cnas.ro/default/index/index/lang/EN>

National Institute for Infectious Diseases “Prof. Dr. Matei Balș”

(Institutul Național de Boli Infecțioase “Prof. Dr. Matei Balș”):

<http://www.mateibals.ro>

National Institute of Public Health (Institutul Național de Sănătate Publică):

<http://www.insp.gov.ro>

National Institute for Research and Development in Microbiology and Immunology “Cantacuzino” (Institutul Național de Cercetare-Dezvoltare pentru Microbiologie și Imunologie „Cantacuzino”):

<http://www.cantacuzino.ro/ro>

National Institute of Statistics (Institutul National de Statistica):

<http://www.insse.ro/cms/en>

National School of Public Health Management and Professional Development (Școala Națională de Sănătate Publică, Management și Perfecționare în Domeniul Sanitar București):

<http://www.snspms.ro>

Order of Biochemists, Biologists and Chemists in Romanian Health System (Ordinul Biochimicștilor, Biologilor și Chimicștilor in Sistemul Sanitar din România):

<http://obbcssr.ro>

Order of Nurses, Midwives and Medical Assistants in Romania (Ordinul Asistenților Medicali Generaliști, Moașelor și Asistenților Medicali din România):

<http://en.oamr.ro>

Romanian Association of International Producers of Generic Drugs (Asociația Română a Producătorilor Internaționali de Medicamente Generice):

<http://arpim.ro>

Romanian College of Dentists (Colegiul Medicilor Dentiști din România):

<http://www.cmdr.ro>

Romanian College of Pharmacists (Colegiul Farmaciștilor din România):

<http://www.colegfarm.ro>

Romanian College of Physicians (Colegiul Medicilor din România):

<http://www.cmr.ro>

Romanian National Society of Family Medicine (Societatea Națională de Medicina Familiei):

<http://www.snmf.ro/en/home.htm>

### 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 2013 edition, the Health for All database started to take account of the enlarged EU of 28 Member States.

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

A typical HiT consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights, complaints procedures, public participation and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers are paid.
4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which information technology systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.
5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health services for specific populations.
6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment based on the stated objectives of the health system, financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarizes remaining challenges and future prospects.
9. Appendices: includes references, useful web sites and legislation.

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

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

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

## 9.4 The review process

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

## 9.5 About the authors

**Cristian Vlădescu** is Professor of Public Health and Management at the “Victor Babes” University of Medicine and Pharmacy in Timisoara. Professor Vlădescu has postgraduate degrees in politics and administration (Bucharest University), and comparative analysis of health systems (New York University) and he obtained a Master’s degree in Health Services Management at Nuffield Institute for Health, Leeds University. He also has a PhD in Sociology and a PhD in

Public Health. His main areas of expertise are health policy and planning, and comparative analysis of health systems. He has participated as an expert in numerous projects on health reform and health policy development in Romania and abroad (for WHO, the World Bank, the European Council, UNICEF, etc.) and he has over 100 published papers. He was President of the National Health Insurance Fund, Secretary of State and Director General in the Ministry of Public Health, Counsellor for the Health Commission of the Deputy Chamber of the Romanian Parliament, and Chairman of the Presidential Commission for Health.

**Silvia Gabriela Scîntee** is Deputy General Director at the School of Public Health, Management and Professional Development. She has a Master's degree in Health Services Management from the London School of Hygiene & Tropical Medicine and a PhD in Public Health from the University of Medicine and Pharmacy "Carol Davila" Bucharest. Dr. Scîntee has extensive knowledge on the Romanian health care system as she worked as a Public Health Consultant at the Institute of Public Health Bucharest (1992–2005) and was Deputy General Director of the Romanian National Health Insurance House (2005–2007). She also has working experience at international level, having been engaged in different assignments for WHO and the European Commission, and having worked as an international expert for several consultancy firms and international organizations (HLSP-UK, EHG-Denmark, UNICEF/USAID, WB), gaining an excellent understanding of different health systems (Azerbaijan, Egypt, Serbia, Tajikistan, Bulgaria, Moldova, Slovakia, Turkmenistan, Uzbekistan). Dr Scîntee has almost 20 years' teaching experience and has been actively engaged in European scientific networks on public health and health policy development.

**Victor Olsavszky** is a specialist physician in public health and health care management. He is WHO Representative and Head of Country Office in Bosnia and Herzegovina. A former Head of the WHO Country Office in Romania, he has been working for more than 20 years in the domain of public health, and also in governmental structures as General Director in the Ministry of Health of Romania. In the past 18 years, he has offered technical consultancy to the government and to the Ministry of Health. Among his WHO-based activities, Dr Victor Olsavszky has been involved in the organization and development of workshops dedicated to those working in social and health areas. Dr Olsavszky also has teaching experience at postgraduate level in a range of topics, including some aspects of human rights problems related to social protection and health insurance activities. He has gained work experience in many different countries, including Brazil, Belarus, Ukraine, Moldova, Turkey and Azerbaijan. His main interests lie in public health politics.

**Cristina Hernández-Quevedo** is Technical Officer/Research Fellow at the European Observatory on Health Systems and Policies (WHO), LSE Health, London. She edits and co-writes HiT country profiles and works on a range of Observatory studies. She holds a PhD in Economics and MSc in Health Economics from the University of York, United Kingdom. Research interests include: inequalities in health and lifestyle factors, equity in access to health and social care services and socioeconomic determinants of health. She has published articles on these topics in internationally recognized scientific journals.

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## The Health Systems in Transition reviews

### A series of the European Observatory on Health Systems and Policies

The Health Systems in Transition (HiT) country reviews provide an analytical description of each health system and of reform initiatives in progress or under development. They aim to provide relevant comparative information to support policy-makers and analysts in the development of health systems and reforms in the countries of the WHO European Region and beyond. The HiT reviews are building blocks that can be used:

- to learn in detail about different approaches to the financing, organization and delivery of health services;
- to describe accurately the process, content and implementation of health reform programmes;
- to highlight common challenges and areas that require more in-depth analysis; and
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in countries of the WHO European Region.

### How to obtain a HiT

All HiTs are available as PDF files at [www.healthobservatory.eu](http://www.healthobservatory.eu), where you can also join our listserve for monthly updates of the activities of the European Observatory on Health Systems and Policies, including new HiTs, books in our co-published series with Open University Press, Policy briefs, Policy summaries and the *Eurohealth* journal.

If you would like to order a paper copy of a HiT, please write to:

[info@obs.euro.who.int](mailto:info@obs.euro.who.int)

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## HiT country reviews published to date:

- Albania (1999, 2002<sup>ag</sup>)**  
**Andorra (2004)**  
**Armenia (2001<sup>g</sup>, 2006, 2013)**  
**Australia (2002, 2006)**  
**Austria (2001<sup>e</sup>, 2006<sup>e</sup>, 2013<sup>e</sup>)**  
**Azerbaijan (2004<sup>g</sup>, 2010<sup>g</sup>)**  
**Belarus (2008<sup>g</sup>, 2013)**  
**Belgium (2000, 2007, 2010)**  
**Bosnia and Herzegovina (2002<sup>g</sup>)**  
**Bulgaria (1999, 2003<sup>b</sup>, 2007<sup>g</sup>, 2012)**  
**Canada (2005, 2013<sup>c</sup>)**  
**Croatia (1999, 2006, 2014)**  
**Cyprus (2004, 2012)**  
**Czech Republic (2000, 2005<sup>g</sup>, 2009, 2015)**  
**Denmark (2001, 2007<sup>g</sup>, 2012)**  
**Estonia (2000, 2004<sup>gj</sup>, 2008, 2013)**  
**Finland (2002, 2008)**  
**France (2004<sup>cg</sup>, 2010, 2015)**  
**Georgia (2002<sup>dg</sup>, 2009)**  
**Germany (2000<sup>e</sup>, 2004<sup>eg</sup>, 2014<sup>e</sup>)**  
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**Hungary (1999, 2004, 2011)**  
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**Kazakhstan (1999<sup>g</sup>, 2007<sup>g</sup>, 2012)**  
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**Portugal (1999, 2004, 2007, 2011)**  
**Republic of Korea (2009\*)**  
**Republic of Moldova (2002<sup>g</sup>, 2008<sup>g</sup>, 2012)**  
**Romania (2000<sup>f</sup>, 2008)**  
**Russian Federation (2003<sup>g</sup>, 2011<sup>g</sup>)**  
**Slovakia (2000, 2004, 2011)**  
**Slovenia (2002, 2009, 2016)**  
**Spain (2000<sup>h</sup>, 2006, 2010)**  
**Sweden (2001, 2005, 2012)**  
**Switzerland (2000, 2015)**  
**Tajikistan (2000, 2010<sup>g</sup>, 2016)**  
**The former Yugoslav Republic of Macedonia (2000, 2006)**  
**Turkey (2002<sup>gi</sup>, 2011<sup>i</sup>)**  
**Turkmenistan (2000)**  
**Ukraine (2004<sup>g</sup>, 2010<sup>g</sup>, 2015)**  
**United Kingdom of Great Britain and Northern Ireland (1999<sup>g</sup>, 2015)**  
**United Kingdom (England) (2011)**  
**United Kingdom (Northern Ireland) (2012)**  
**United Kingdom (Scotland) (2012)**  
**United Kingdom (Wales) (2012)**  
**United States of America (2013)**  
**Uzbekistan (2001<sup>g</sup>, 2007<sup>g</sup>, 2014<sup>g</sup>)**  
**Veneto Region, Italy (2012)**

### Key

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

<sup>a</sup> Albanian

<sup>b</sup> Bulgarian

<sup>j</sup> Estonian

<sup>c</sup> French

<sup>d</sup> Georgian

<sup>e</sup> German

<sup>k</sup> Polish

<sup>f</sup> Romanian

<sup>g</sup> Russian

<sup>h</sup> Spanish

<sup>i</sup> Turkish

\* More recent versions are available from the Asia Pacific Observatory.



The European Observatory on Health Systems and Policies is a partnership, hosted by the WHO Regional Office for Europe, which includes the Governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Sweden, Switzerland, the United Kingdom and the Veneto Region of Italy; the European Commission; 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 European Observatory has a secretariat in Brussels and it has hubs in London (at LSE and LSH TM) and at the Technical University of Berlin.

HiTs are in-depth profiles of health systems and policies, produced using a standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.