Health Systems in Transition
Vol. 13 No. 4 2011

Portugal

Health system review

Pedro Pita Barros
Sara Ribeirinho Machado
Jorge de Almeida Simões

European Observatory on Health Systems and Policies

Sara Allin (Editor) and Elias Mossialos (Editor in chief) were responsible for this HiT

Editorial Board

Health Systems in Transition

Pedro Pita Barros, *Universidade Nova de Lisboa and Centre for Economic Policy Research, London*

Sara Ribeirinho Machado, *Boston University*

Jorge de Almeida Simões, *Universidade de Aveiro*

Portugal:

Health System Review 2011

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

Keywords:

DELIVERY OF HEALTH CARE

EVALUATION STUDIES

FINANCING, HEALTH

HEALTH CARE REFORM

HEALTH SYSTEM PLANS – organization and administration

PORTUGAL

Printed and bound in the United Kingdom.

Suggested citation:
Barros P, Machado S, Simões J. Portugal: Health system review. *Health Systems in Transition*, 2011, 13(4):1–156.

ISSN 1817-6127 Vol. 13 No. 4

Contents

Preface

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

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

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

Compiling the profiles 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, national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, the International Monetary Fund (IMF), the World Bank, and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

A standardized profile 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. The HiT profiles 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.

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

Acknowledgements

The HiT on Portugal was co-produced by the European Observatory on Health Systems and Policies and NOVA School of Business and Economics (Faculdade de Economia da Universidade Nova de Lisboa) which is a member of the network of National Lead Institutions (NLIs) that works with the Observatory on Country Monitoring.

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

NOVA School of Business and Economics is an academic unit of the Universidade Nova de Lisboa that develops research activities recognized at international level and supports policy decision-making in the health and social field in Portugal.

This edition was written by Pedro Pita Barros (Universidade Nova de Lisboa and Centre for Economic Policy Research, London), Sara Ribeirinho Machado (Boston University) and Jorge de Almeida Simões (Universidade de Aveiro). It was edited by Sara Allin (University of Toronto), working with the support of Sarah Thomson of the Observatory's team at the London School of Economics and Political Science. The basis for this edition was the previous HiT on Portugal which was published in 2007, written by Pedro Pita Barros and Jorge de Almeida Simões, and edited by Sara Allin and Elias Mossialos.

The Observatory, NOVA School of Business and Economics and the authors are grateful to Miguel Gouveia (Universidade Católica Portuguesa) for reviewing the report.

Special thanks go also to everyone at the Ministry of Health and its agencies for their assistance in providing information and for their invaluable comments on previous drafts of the manuscript and suggestions about plans and current policy options in the Portuguese health system.

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

The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Ireland, the Netherlands, Norway, Slovenia, Spain, Sweden and the Veneto Region of Italy, the European Commission, the European Investment Bank, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine. The Observatory team working on the HiTs is led by Josep Figueras, Director, Elias Mossialos, Martin McKee, Reinhard Busse and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Gabriele Pastorino. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Caroline White, Sophie Richmond (copy-editing), Pat Hinsley (typesetting) and Aki Hedigan (proofreading).

List of abbreviations

ACES	Groups of primary care centres
ACS	High Commissariat for Health
ACSS	Central Administration of the Health System
ADFA	Health subsystem for the Air Force
ADMA	Health subsystem for the Navy
ADME	Health subsystem for the Army
ADSE	Health subsystem for civil servants
ALOS	Average length of stay
APIFARMA	Association of Pharmaceutical Companies
ASST	Authority for Blood and Transplantation Services
CNS	National Health Council
CODU	Urgent Patients Orientation Centre
CODU-Mar	Urgent Patients Orientation Centre for situations occurring at sea
CRSul	Rehabilitation Centre at São Brás de Alportel
CT	Computerized (axial) tomography
DALE	Disability-adjusted life expectancy
DGH	Directorate-General of Health
DMFT	Decayed, missing or filled teeth
DRG	Diagnosis-related group
ERDF	European Regional Development Fund
EU	European Union
EU15	EU Member States before May 2004
EU25	EU Member States before January 2007
EU27	EU Member States after January 2007
FNAM	National Medical Federation
GDP	Gross domestic product
GP	General practitioner
GPEARI	High Commissioner for Health
HiT	Health Systems in Transition
HIV/AIDS	Human immunodeficiency virus/Acquired immunodeficiency syndrome

HRA	Health Regulatory Agency
HTA	Health technology assessment
IDT	National Institute of Drug Addiction
IGAS	General Inspectorate of Health-related Activities
IGIF	Institute for the Financial Administration of Health
INE	National Statistics Institute
INEM	National Institute for Medical Emergencies
INFARMED	National Authority of Medicines and Health Products
INSA	National Institute of Health Dr Ricardo Jorge
IPS	Portuguese Blood Institute
IQS	Institute for Quality
IT	Information technology
MRI	Magnetic resonance imaging
NHS	National Health Service
NUTS	Nomeclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
OMD	Medical Dentists Federation
ONSA	National Health Observatory
OOP	Out-of-pocket (payments)
OTC	Over-the-counter (pharmaceuticals)
PET	Positron emission tomography
PIDDAC	Central Administration's Investment and Development Plan
PPPs	Public–private partnerships
PT-ACS	Health subsystem for workers of Portugal Telecom
PYLL	Potential years of life lost
R&D	Research and development
RHA	Regional Health Administration
RNCCI	National Long-term Care Network
SAD GNR	Health subsystem for National Republican Guards
SAD PSP	Health subsystem for Police Agents
SAMS	Health subsystem for banking and associated insurance employees
SDR	Standardized death rate
SG	General Secretariat of Health
SIGIC	System for management of (waiting list) patients waiting for surgery
SIM	Independent Medical Union
SSMJ	Health subsystem for employees of the Ministry of Justice
TB	Tuberculosis
USF	Family health unit
VHI	Voluntary health insurance
WHO	World Health Organization
WPU	Weighted production units

List of tables and figures

Tables

Figures

Abstract

The Portuguese population enjoys good health and increasing life expectancy, though at lower levels than other western European countries. All residents in Portugal have access to health care provided by the National Health Service (NHS), financed mainly through taxation. Co-payments have been increasing over time, and the level of cost-sharing is highest for pharmaceutical products. Approximately one-fifth to a quarter of the population enjoys a second (or more) layer of health insurance coverage through health subsystems and voluntary health insurance (VHI). Health care delivery is based on both public and private providers. Public provision is predominant in primary care and hospital care, with a gatekeeping system in place for the former. Pharmaceutical products, diagnostic technologies and private practice by physicians constitute the bulk of private health care provision.

The Portuguese health system has not undergone any major changes on the financing side since the early 1990s, despite the steady growth of public health expenditure. On the other hand, many measures have been adopted to improve the performance of the health system, including public–private partnerships (PPPs) for new hospitals, a change in NHS hospital management structures, pharmaceutical reforms, the reorganization of primary care and the creation of long-term care networks. Some of these measures have faced opposition from the (local) population, namely those related to the closure of health care facilities. There is an overall awareness, and concern, about the rise in health care expenditure in Portugal. Most of the reforms that have come into effect have done so too recently to measure any effects at present (January 2011).

Executive summary

Portugal has been a constitutional democratic republic since 1974. The country has a relatively low level of urbanization with just over half of the population living in urban areas. The population is ageing. Recent projections show that the Portuguese population will most probably decline or stabilize between 2008 and 2060 due to the combination of an increase in the number of deaths and a decrease in the number of live births. Between 2000 and 2009, the Portuguese economy faced a period of very low and sometimes even negative growth.

Considerable health improvements can be seen in recent decades. The mortality rate has declined more than 0.8 percentage points since 1975. This trend reflects both improved access to an expanding health care network, thanks to continued political commitment, and economic growth, which led to improved living standards and increasing investment in health care. Despite the overall improvements, there are inequalities in health among the regions and between social groups. Since the mid 1980s, the main causes of death have been diseases of the circulatory system, cerebrovascular disease and malignant neoplasms. These are likely to remain the main causes of death of the Portuguese population for the coming decades. Relative to other European Union (EU; EU15) countries, however, there are high rates of avoidable mortality, and low levels of disability-adjusted life expectancy (DALE). Also Portugal has one of the highest prevalence of HIV infection in Europe.

The current organization of the health system can be traced back to 1946, when the first social security law was enacted: health care was provided for the employed population and their dependants through social security and sickness funds, financed by compulsory contributions from employees and employers. After the revolution of 1974, a process of health services restructuring began, which culminated in the establishment of the NHS – a universal, tax-financed system – in 1979. Currently the Portuguese health care system is characterized

by three coexisting, overlapping systems: the universal NHS; special public and private insurance schemes for certain professions (health subsystems), covering about one-fifth to a quarter of the population; and private VHI providing additional coverage for 10–20% of the population.

Planning and regulation take place largely at the central level in the Ministry of Health and its institutions. The High Commissariat for Health (ACS) is responsible for the design, implementation and evaluation of the National Health Plan (the National Health Plan 2011–2016 is currently in development). The management of the NHS takes place at the regional level. In each of the five regions, a health administration board that is accountable to the Ministry of Health is responsible for strategic management of population health, supervision and control of hospitals, management of primary care/NHS primary care centres and implementation of national health policy objectives. They are also responsible for contracting services with hospitals and private sector providers for NHS patients. Although in theory the regional health administrations (RHAs) have financial responsibilities, these are limited to primary care since hospital budgets are defined and allocated centrally. All hospitals belonging to the NHS are in the public sector, under the Ministry of Health jurisdiction. Private sector hospitals, both profit-making and non-profit-making, have their own management arrangements. In 2009, the Ministry of Health published the National Strategy for Quality in Health.

Like most European systems, the Portuguese health care system draws on a mix of public and private financing. The NHS, which provides universal coverage, is predominantly financed through general taxation. The health subsystems, which provide either comprehensive or partial health care coverage to between one-fifth and a quarter of the population, are financed mainly through employee and employer contributions (including state contributions as an employer). Private VHI covers between 10% and 20% of the population. Health care spending constituted almost 10% of the country's gross domestic product (GDP) in 2008. In recent years there has been a rapid rate of increase in public health expenditure, which relates in part to the country's political reluctance to impose cost-control measures. A large proportion of financing, about 30% of total expenditure, is private, mainly in the form of out-of-pocket (OOP) payments (both co-payments and direct payments by the patient), and to a lesser extent in the form of premiums to private insurance schemes and mutual institutions.

The Ministry of Health receives a global budget for the NHS from the Ministry of Finance, which is then allocated to the many institutions within the NHS. Public hospitals are funded through global budgets, but with an increasing

role of diagnosis-related groups (DRGs), and private insurers and health subsystems pay hospitals retrospectively based on DRGs. The Ministry of Health allocates funds to the health regions, on the basis of a combination of historical expenditure and capitation, which pay for primary care and special programmes.

In 2008, Portugal had 189 hospitals, 77 of which belong to the NHS, with a total capacity of 35 762 beds (INE, 2009f). Almost half of the private hospitals belong to profit-making organizations. Trends in hospital numbers have been similar to those in other European countries. There has been a significant decrease in the number of public hospitals over the decades, from 634 in 1970 to 77 in 2008 (INE, 2009f). This is possibly due to the mergers between public sector hospitals in the recent past. One of the government's current objectives is to increase capacity and value for money in the NHS by increasing private sector involvement in the building, maintenance and operation of health facilities under the so-called PPPs.

The number of physicians per 1000 population is currently above the EU27 average. The relative number of nurses in Portugal is well below that of other countries, which implies that Portugal has a ratio of nurses to physicians much lower than in most countries. Regarding pharmaceutical delivery, the overall distribution and density of pharmacies in the country seem to be balanced, and the number of pharmacists has been growing steadily.

A mix of public and private health service providers delivers Portuguese primary health care. These include primary care centres integrated in the NHS, private sector primary care providers (both non-profit-making and profit-making) and professionals or groups of professionals in a liberal system with which the NHS contracts or develops cooperation agreements. Secondary and tertiary care is mainly provided in hospitals. The recently formed National Long-term Care Network (RNCCI) combines teams providing long-term care, social support and palliative activity with its origins in communitarian services, covering hospitals, groups of primary care centres (ACES), local and district social security services and municipalities. The National Institute for Medical Emergencies (INEM) is the Ministry of Health organization responsible for the coordination and functioning of an integrated medical emergency system in continental Portugal, ensuring the rapid and appropriate delivery of emergency health care.

Pharmaceuticals that require prescription can only be sold in a pharmacy. It is mandatory to have a technical director with a degree in pharmaceutical sciences in each pharmacy. The location of pharmacies is highly regulated and there is a maximum number of pharmacies permitted in each community. Prescribed

drugs are subject to variable patient co-insurance based on effectiveness criteria, with full payment required for those pharmaceuticals deemed to have little or no clinical value.

The recent past has been characterized by the introduction of a number of reform initiatives. There are broadly five different areas of intervention, which have been under the spotlight: health promotion, long-term care, primary and ambulatory care, hospital management and inpatient care, and the pharmaceutical market. In 2006, the RNCCI for elderly and dependent patients was created. ACES were created in 2008 to allow for a better use of resources and management structures. Hospital care has been subject to two sorts of reforms. On the one hand, there has been a redefinition of the existing NHS supply of hospital services. On the other hand, changes have been made to the public hospital model, namely to management rules and the payment systems. A final area of reform to be discussed was the pharmaceutical market. Interventions have occurred both at the level of regulated prices and margins, and in ownership and entry rules.

Recent years have been rich in the number and scope of reforms initiated. A few have started again, developing in a new direction (e.g. the primary care reform). Others have been continued under different governments, while some have been only recently launched. However, the succession of several reforms is far from being coherent and from achieving cost-control objectives. It is expected that, in the near future, the system will be characterized mainly by the consolidation of current reforms.

The main source of funding of the NHS is general taxation. Financial resources directed towards health care have reached a high level relative to the country's wealth. Approximately 10% of GDP is devoted to health expenditure, which puts Portugal among the countries with the highest level of health spending within the EU27 and the OECD. The tradition since the mid 1990s has been one of steady and fast growth in public health expenditure, with private expenditure remaining relatively constant (i.e. growing in line with GDP). Human resources in Portugal have been characterized by a higher emphasis than most other countries on specialist hospital care, coupled with a relative scarcity of physicians, even though the number of physicians per capita is higher than the OECD average. More recent years have shown a movement towards correction of these imbalances. There is clearly room for further efficiency gains in the delivery of health care in Portugal. The role of health technology assessment (HTA) is currently limited to pharmaceutical products. If ensuring that good value for money is obtained in health care provision, a more systematic approach will have to be taken.

1. Introduction

This chapter describes the geographic, political and economic setting in which the Portuguese health system operates. Portugal has been a constitutional democratic republic since 1974. The country has a relatively low level of urbanization with just over half of the population living in urban areas. The population is ageing. Recent projections show that the Portuguese population will most probably decline or stabilize between 2008 and 2060 due to the decrease in the number of live births. Between 2000 and 2009, the Portuguese economy faced a period of very low and even negative growth.

This chapter also provides details of the health status of the population in order to understand the specific challenges the health system faces. Considerable health improvements can be seen in recent decades. The mortality rate declined more than 0.8 percentage points since 1975. This trend reflects both improved access to an expanding health care network, thanks to continued political commitment, and economic growth, which led to improved living standards and increasing investment in health care. Despite the overall improvements, there are inequalities in health among the regions and between social groups. Since the mid 1980s, the main causes of death have been diseases of the circulatory system, cerebrovascular disease and malignant neoplasms. These are likely to remain the main causes of death of the Portuguese population for the coming decades. Relative to other EU15 countries, however, there are high rates of avoidable mortality and low levels of DALE. Also Portugal is among the countries in Europe with the highest prevalence of HIV infection.

1.1 Geography and sociodemography

Portugal is part of the Iberian Peninsula in the south-west of Europe. The archipelagos of the Azores (nine islands) and Madeira (two main islands and a natural reserve of two uninhabited islands) in the Atlantic Ocean are also part

of Portugal. The mainland is 91 900 km² (960 km north to south and 220 km east to west), with 832 km of Atlantic coastline and a 1215 km inland border with Spain.

The River Tejo, which rises in the central Iberian Peninsula, divides the country into two distinct geographical areas. Rivers, valleys, forests and mountains characterize the northern and central regions. The highest range in continental Portugal is the Serra da Estrela, peaking at Torre (1993 m), while the Pico, in the Azores Islands, is the highest mountain overall at 2100 m. The south, apart from the rocky backdrop of the Algarve, is much flatter, drier and less populated.

Portugal has a temperate climate influenced by the Atlantic Ocean. As a result, the natural flora is varied, with species typical of both western Europe and the Mediterranean.

According to the latest estimates, the total resident population of Portugal is 10.6 million. This represents a 5% increase over the last decade. It also represents a 2.6% increase since the last census in 2001 (INE, 2001, 2009e). Population density is now 116.08 per square kilometre, similar to Slovakia, Hungary and France (United Nations, 2009).

Since the late 1990s, legal and illegal immigration from Brazil and central and eastern Europe, together with the more traditional immigration from Africa has raised new problems and challenges for the Portuguese health care system. According to current laws, immigrants have the same access to health care as Portuguese nationals. (The current law guiding immigration in Portugal is Law no. 23/2007, 4 July; before that, the legal framework for immigration was set by Law-Decree no. 34/2003, 25 February.) Since 2001 (Ministry of Health, *Despacho* 25360/2001), the services of the NHS cannot refuse treatment based on nationality, illegal immigrant status or lack of financial means to pay for care. Thus immigrants can demand care and expect to be treated. Under the current legal framework, and considering that Portugal's NHS is funded by general taxation, and that it provides universal health insurance coverage of residents, access by immigrants to health care appears to be wider than in other European countries (Fonseca et al., 2007). Despite the formal equality of access of immigrants relative to nationals, there may exist informal and/or socioeconomic barriers, in particular for undocumented immigrants. Fonseca et al. (2007) suggest that some of these barriers relate to a lack of knowledge of the health care system, language barriers and discrimination by health professionals. However, their analysis fails to distinguish whether immigrants differ in terms of health status and demand for health care from comparable

native Portuguese with similar incomes. Nevertheless, there appear to be some barriers to access primary care for illegal immigrants (Barros & Pereira, 2009; see also Dias, Severo & Barros, 2008; Dias et al., 2008).

According to 2008 estimates, the legal immigrant population represents 4.1% of the resident Portuguese population (INE/SEF-MAI, 2009). The majority of immigrants (52%) live in the Lisbon area. About 78% of immigrants are in the economically active age group (15–64 years of age), confirming the strong economic reasons for migrating to Portugal (INE, 2007). The number of immigrants from eastern European countries has increased since the mid 1990s. A distinctive feature of this group relative to other immigrants is their higher literacy rate. Some have a high level of professional qualifications. For example, between 2002 and 2005, the *Fundação Calouste Gulbenkian* promoted the professional recognition and adaptation of 105 physicians originating from eastern Europe who were working in construction or in low-end services (e.g. cleaning services). In 2008, the Ministry of Health approved the "Programme for the professional integration of immigrant physicians", a partnership with the *Fundação Calouste Gulbenkian* and the Jesuit Service for Refugees, for another 150 physicians.

While in 1970 only 38.8% of the population lived in urban areas, this rose to 42.8% in 1980, 47.9% in 1990, 54.4% by 2000, and 58.2% by 2006, according to the latest data available (Table 1.1). This is clearly below the average for the EU15, which was approximately 77% in 2005 (WHO Regional Office for Europe, 2010). The two main metropolitan areas are greater Lisbon (resident population 2.029 million in 2008) and greater Oporto (population 1.283 million in 2008). The migration of the population from the interior to the coastal cities has been a constant feature in mainland Portugal, but this migration increased after the 1974 revolution. Large suburban areas were built to accommodate the influx of internal and external immigrants. The rapid growth of these suburban neighbourhoods without an accompanying expansion of the public transport network has put great pressure on city centres from increased traffic.

The number of births has been declining steadily since 1970 (20.8 live births per 1000 population). In 1990, the crude birth rate for Portugal was 11.7 live births per 1000 population (Table 1.1), which was below the average of the EU15 – of 12.02 – for the first time since 1970 (WHO Regional Office for Europe, 2010). By 2008 the number of births per 1000 population declined to 9.8 (see Table 1.1).

The median age of the population has been steadily rising. From 31 years in 1986 it rose to 40 years of age in 2008. The dependency ratio fell from 0.59 in 1980 to 0.49 in 2008 (based on the relation of the population under 15 and over

Table 1.1
Population/demographic indicators, 1970 to latest available year

	1970	1980	1990	2000	2005	2009
Age dependency ratio (dependants to working-age population)	0.61	0.59	0.51	0.48	0.49	0.49
Birth rate, crude (per 1 000 people)	20.8	16.2	11.7	11.7	10.4	9.4
Death rate, crude (per 1 000 people)	10.7	9.7	10.3	10.3	10.2	9.8
Fertility rate, total (births per woman)	3.0	2.25	1.57	1.56	1.41	1.32
Population, ages 0–14 (% of total)	28.5	25.8	20.4	16.1	15.6	15.2
Population, ages 15–64 (% of total)	61.8	62.9	66.2	67.7	67.3	67.0
Population, ages 65 and above (% of total)	9.7	11.3	13.4	16.2	17.1	17.8
Population density (people per km^2)	94.37	106.18	108.49	111.18	114.66	113.90[a]
Population growth (annual %)	–0.35	1.05	–0.26	0.62	0.40	0.10
Population, female (% of total)	52.4	51.9	51.8	51.7	51.6	51.6
Population, total (000s)	8 681	9 766	9 983	10 223	10 549	10 633
Urban population (% of total)	38.8	42.8	47.9	54.4	57.6	58.2[b]
Proportion of single-person households (%)	–	–	4.0	5.5	–	–
Educational level – 9 years of school (%)	14.4	25.8	54.0	83.9	82.5	86.5[c]

Sources: Data from INE; United Nations, 2009; World Bank, 2009; CIA, 2011.
Notes: [a]2008; [b]2006; [c]2007.

65 years of age to the remainder of the population) (see Table 1.1). Demographic changes seem to have followed a global improvement in socioeconomic conditions similar to those in other countries in the past. Recent projections show that the Portuguese population will most probably decline or stabilize between 2034 and 2060 (INE, 2009h). The results point towards negative natural increases all through the projection period, and this trend is moderated only in the most optimistic scenario. This population decline is the result of the combination of an increase of the number of deaths and a decrease in the number of live births. The increase in the proportion of people over 65 years old and the decrease of the population under 15 years of age will result in a "double ageing" effect. A scenario approach to these estimates seems to confirm that positive net migration will not be enough to offset the demographic ageing, either in the total population or the working-age population (INE, 2009h).

1.2 Economic context

Between 2000 and 2009, the Portuguese economy faced a period of very low and even negative growth. In 2003, the country was in recession, and again in 2009. Since 2002, a number of macroeconomic disequilibria have existed, with the most visible effect being the increase in the government budget deficit, which surged to an all-time high of 6% of GDP in 2005, followed by 9.6% in 2009, as

well as a rise in unemployment levels. These numbers also reflect the effect of the global financial crisis of 2009. Table 1.2 shows the main macroeconomic indicators for the latest available year. Inflation settled around -0.8% in 2009, which means that the overall level of prices to the consumer decreased. In the same year, GDP decreased by 2.68%. In 2002, GDP per capita was €12 376, whereas in 2005 it had increased to €13 549 and then decreased to €12 421 in 2008. The country presents a high level of income inequality (Gini index: 38.5%). Unemployment levels have increased every year since 2002, from 6.1% in 2002 to 9.5% by the end of 2009.

The year 2006 was thought to be the beginning of a recovery that was expected to boost the Portuguese economy to reach average EU growth levels, but the main macroeconomic disequilibria, such as the government's budget deficit and unemployment, persisted and even worsened during 2008 and 2009. The main policy measures included a value added tax (VAT) increase in 2005 and again in 2009, several spending cuts and a global reform of civil services.

Table 1.2
Macroeconomic indicators, latest available year

		Year
GDP (constant LCU) (million €)	163 051.6	2009
GDP per capita, PPP (constant 2000 international $)	18 000	2004
GDP per capita (constant LCU)	12 421	2008
GDP, PPP (constant 2000 international $, in billions)	189	2004
GDP growth (last 10 years average %)	1.16	2009
GINI Index	38.5	2007
Overall general government balance, excluding temporary measures (%GDP)	–9.3	2009
Agriculture, value added (% of GDP)	3	2007
Industry, value added (% of GDP)	24	2007
Manufacturing, value added (% of GDP)	73	2007
Current account balance (% of GDP)	–7.6	2009
Labour force, total	5 582 700	2009
Unemployment, total (% of total labour force)	9.5	2009
Official exchange rate (US$, €, period average)	1.39	2009
Nominal short-run interest rate (%)	1.2	2009
Nominal long-run interest rate (%)	4.3	2009
Inflation rate	–0.8	2009

Sources: Government of the Republic of Portugal, 2009; World Bank, 2009; INE, 2009e; Portuguese Central Bank, 2009.
Notes: LCU: Local currency unit; PPP: Purchasing power parity.

1.3 Political context

Portugal has been a constitutional democratic republic since 1974. The main institutions of the state are the President of the Republic, the Parliament, the government and the courts. Both the President and the Parliament are elected by means of universal suffrage, through national elections.

The Parliament is made up of 230 members elected according to a system of proportional representation and the highest average method (Hondt method). The Prime Minister is appointed by the President on the basis of the election results and after consultation with the political parties. The President also appoints the other members of the government on the recommendation of the Prime Minister.

The administrative system comprises 5 regions (North, Centre, Lisbon, Alentejo and the Algarve), 18 districts and 2 autonomous regions (the Azores and Madeira). The districts are further divided into municipalities (*concelhos*), which have their own level of elected government and boroughs (*freguesias*). The islands have their own political and administrative structures. The President appoints a State Representative (*Representante do Estado*) to represent the republic in each of the autonomous regions, following a proposal by the national government.

In December 1999, China resumed sovereignty over the territory of Macao, which had been under Portuguese sovereignty since 1887. Angola, Mozambique, Guinea-Bissau, Cape Verde and São Tomé and Príncipe all became independent after the 1974 revolution, which ended 13 years of war in the African colonies.

The Socialist Party has been in government since the 2005 general elections, having been re-elected in 2009, and has a relative majority of seats in the Parliament.

The government centralizes policy-making in the health sector. Health policy-making often involves the government officially hearing the opinion of several organized interest groups. The latter have different forms and distinct roots. Some are professionally based (the Portuguese Medical Association – *Ordem dos Médicos*, the Portuguese Nurse Association – *Ordem dos Enfermeiros*, the Portuguese Pharmacists' Association – *Ordem dos Farmacêuticos*, to name three examples), others are traditional unions (medical doctors and nurses are again good examples), industry associations (*Associação Nacional de Farmácias* in the case of pharmacies, Association of Pharmaceutical Companies (APIFARMA) for pharmaceutical companies, and APOGEN for pharmaceutical generics producers are just three examples), and nongovernmental organizations, most noticeably patients' associations. Portugal is also a member of several international organizations, with implications for health and health policies

(the United Nations, EU, European Economic Area, World Trade Organization, North Atlantic Treaty Organization, European Free Trade Association, Council of Europe, etc.). The EU's directives on public health and the organization of the different groups of health professionals' policies largely determine national policies on those topics.

1.4 Health status

The report *Primary health care – now more than ever* (WHO & ACS, 2008) classifies Portugal as one of the top five countries in the world (the others are Chile, Malaysia, Thailand and Oman) that have made remarkable progress in reducing mortality rates. In Portugal, the mortality rate declined more than 0.8% since 1975. This trend reflects both improved access to an expanding health care network, thanks to continued political commitment, and economic growth, which made it possible to invest large amounts in the health care sector.

Portuguese life expectancy at birth doubled during the 20th century, both in women (40.0 years in 1920 to 79.7 years in 2000) and in men (35.8 years in 1920 to 72.6 years in 2000). This trend continued to the mid 1980s (see Table 1.3), and life expectancy in Portugal is converging to the EU average. In 2008, average life expectancy at birth in Portugal was 78.2 years, while the EU15 average was 80.4 years (WHO Regional Office for Europe, 2010). There is a significant difference between estimates of life expectancy for men and for women in Portugal: the 2008 figures were 81.4 years for women and 74.9 years for men (Table 1.3). As it will be made clear below, men usually die younger due to cerebrovascular diseases, ischaemic heart conditions, traffic accidents and malignant neoplasms.

Table 1.3

Mortality and health indicators, 1970–2008 (selected years)

	1970	1980	1990	2000	2007	2008
Life expectancy at birth, female (years)	70.3	74.6	77.6	80.3	81.6	81.4
Life expectancy at birth, male (years)	64.0	67.5	70.6	73.2	74.9	74.9
Life expectancy at birth, total (years)	67.1	71.2	74.1	76.8	78.3	78.2
Mortality rate (per 1 000 female adults)	10.1	9.0	9.6	9.5	9.2	9.3
Mortality rate (per 1 000 male adults)	11.5	10.6	11.1	11.1	10.4	10.4
Mortality rate, crude (per 1 000)	10.7	9.7	10.3	10.3	9.8	9.8
Infant deaths per 1 000 live births	55.5	24.3	10.9	5.5	3.4	3.3
Probability of dying before age 5 years (per 1 000 live births)	–	29.2	14.0	7.3	4.2	4.0

Sources: INE, 2009a, 2009b, 2009c, 2009e; WHO Regional Office for Europe, 2010.

Child health has improved since the early 1960s: the indicators of child health are currently near the average European level (Table 1.3). The infant mortality rate decreased fivefold between 1970 and 1990, and decreased from 10.9 per 1000 in 1990 to 3.3 per 1000 in 2008, below the EU15 average (3.84 per 1000 live births in 2007). The perinatal mortality rate dropped from 3810 deaths in 1980 to 746 in the year 2000 and further to 418 in 2008 (Table 1.4). From 1990 to 2008 the neonatal mortality rate decreased from 804 to 216 deaths. Although there has been a positive evolution of infant mortality indicators, there are still some regional disparities (see Table 1.5). The infant mortality rate is lower in the Centre region (2.6 per 1000 live births, Nomenclature of Territorial Units for Statistics (NUTS) II level) (INE, 2009f). The reduction in infant mortality to the point where the level in Portugal is lower than the EU27 average may reflect economic growth and social development (especially after accession to the European Communities in 1986). These trends may also stem from more than 30 years of policies, strategies, programmes and selective investments in perinatal, maternal and child care, in spite of political changes and discontinuities (see section 5.1). These measures include the creation of "Medical service to rural areas"; incentives to increase the number of gynaecologists, obstetricians and paediatricians based in District-level 1 hospitals; and the development of the

Table 1.4

Maternal and child health indicators, 1970–2009 (selected years)

	1970	1980	1990	2000	2008	2009
Perinatal mortality rate (per 1 000 live births)[a]	–	23.8	12.4	6.4	4.4	4.6
Neonatal mortality rate (per 1 000 live births)[a]	–	15.4	6.9	3.4	2.1	2.5
Fertility index[b]	3.0	2.3	1.6	1.6	1.4	1.4
Maternal death (per 100 000 live births)[c]	73.4	19.0	10.3	2.5	3.8	3.8
Adolescent pregnancy rates (age<20) (per 100 live births)[b]	–	–	–	–	4.2	4.2

Sources: [a] INE, 2009g; [b] INE, 2009a; [c] INE, 2009f, 2009g.

Table 1.5

Infant mortality rates (per 1 000 live births) by region, 2000–2008 (selected years)

	2000	2004	2005	2006	2007	2008
Continent	5.3	3.8	3.4	3.3	3.4	3.3
North	5.8	4.0	3.8	3.1	3.5	3.6
Centre	4.5	3.2	2.8	3.0	2.8	2.6
Lisbon	5.0	3.9	3.3	3.4	3.5	3.7
Alentejo	5.3	3.4	3.5	3.1	3.7	3.8
Algarve	5.5	4.2	3.6	5.0	3.9	3.2

Source: ACS–Ministry of Health, 2009.

National Immunization Programme, the articulation of different levels of care and the programme on the transport of neonates, among others (for an in-depth analysis of the evolution of Portuguese mortality indicators since 1979, see the chapter by Santana in Simões, 2009). The overall improvement in maternal and child health indicators is one of the success stories in the Portuguese health system since the mid 1970s.

Improvements in the health status of the Portuguese population are associated with increases in human, material and financial resources devoted to health care, as well as to a general improvement in socioeconomic conditions. Despite the overall improvement in living standards, there are inequalities among the regions and between social classes. These disparities are evident in the variation of some health indicators. For example, the average for crude malignant neoplasm mortality rates over the period 1999–2003 ranged between 1.9 per 1000 in the North region and 3.4 in lower Alentejo. Over the same period, the rates of infant mortality were 4.6 per 1000 in the Lisbon region and 6.9 in the Alentejo region. There are also disparities in the supply ratio of physicians (6.0 per 1000 in Lisbon and Oporto, whereas in lower Alentejo the 2004 figure was only 1.6) and nurses (6.0 per 1000 in Lisbon and Oporto, while in lower Alentejo in 2004 there were 2.4 nurses per 1000 inhabitants) to population (INE, 2004, 2005). Furthermore, the latest National Health Survey shows that the highest level of self-reported health status is found in the Lisbon and the Algarve regions, with the lowest found in the Centre and Alentejo regions.

The leading causes of death are shown in Table 1.6, and the standardized mortality rates in 2005–2008 are shown in Table 1.7. Since the mid 1980s, the main causes of death have been cardiovascular and cerebrovascular diseases and malignant neoplasms. These are likely to remain the main causes of death of the Portuguese population for the coming decades, according to the Directorate-General of Health (DGH) study (DGH, 2002). One should not underestimate the extremely high level of undefined causes of death, suggesting there might be weaknesses in data collection. A project is currently under way at DGH to address and improve reporting on causes of death. Diseases of the circulatory system, together with malignant neoplasms, accounted for over 50% of deaths in 2008, according to the latest figures provided by the National Statistics Institute (INE, *Instituto Nacional de Estatística*). The mortality rate of these diseases has been above the EU27 average over recent decades. In contrast, Portugal has one of the lowest mortality rates from cardiac ischaemic disease in the EU. The most frequent fatal tumours in 2008 were lung tumours, among both men and women.

Table 1.6

Main causes of death – percentage of total number of deaths, 1990–2009 (selected years)

	1990	1995	2000	2005	2006	2007	2008	2009
Diseases of the circulatory system	44.2	41.9	38.7	34.0	32.2	32.9	32.3	31.9
Malignant neoplasms	17.7	19.3	20.3	21.1	21.7	22.6	23.0	23.2
Diseases of the respiratory system	7.3	7.7	9.7	10.5	11.3	10.6	11.1	11.7
Diseases of the digestive system	4.5	4.4	3.9	4.3	4.2	4.4	4.4	4.4
Diabetes mellitus	2.6	3.0	3.0	4.3	3.7	4.2	4.1	4.4

Source: INE, 2009g.

Table 1.7

Main causes of death (standardized mortality rate[a] per 100 000 population), 2005–2008

	2005	2006	2007	2008
Diseases of the circulatory system	211.7	186.5	187.6	181.2
Cerebrovascular diseases	92.5	80.7	80.8	77.1
Ischaemic heart disease	52.6	46.1	46.8	44.0
Malignant neoplasms	155.7	149.7	154.6	155.4
Stomach	16.5	15.1	15.4	16.1
Lung	22.9	23.8	23.1	23.3
Breast	19.9	20.1	18.9	19.8
Prostate	23.3	23.4	22.8	23.1
Diseases of the respiratory system	64.3	63.9	58.9	60.4
Diseases of the digestive system	31.8	29.1	30.2	29.4
Diabetes mellitus	27.2	21.5	24.8	23.5
Land transport accidents	11.7	9.1	9.3	8.5
External cause of death[b]	35.7	35.2	33.2	33.2
Total	673.9	629.3	623.1	613.0

Source: INE, 2009g.
Notes: [a] The standardized mortality rate is computed for all ages based on the standardized European population; [b] Currently a DGH project is under way to improve information on causes of death, which should improve accuracy. Future data may show a detailed picture of the main causes of death in Portugal.

Another important indicator of health status is "avoidable mortality". According to 2005 data, men die from avoidable causes much more than women do, essentially due to cerebrovascular disease and malignant neoplasms (see chapter by Santana in Simões, 2009). Avoidable deaths decreased during recent decades, especially in the Centre region. A large share of premature mortality among men comes from traffic accidents (Ministry of Internal Affairs & Road Safety Authority, 2009). The mortality rate associated with motor vehicle accidents was 5.1 per 100 000 population in 2001, the highest in the EU15 (Santana, 2005). Excessive speed, dangerous manoeuvres and high blood

alcohol levels are the main causes of this problem and have been targeted with specific legislation and law-enforcement measures (see section 5.1). Nonetheless, the number of avoidable deaths is still high, especially in the south of the country. In their cross-country study of the causes of death that are amenable to health care, Nolte and McKee found that Portugal had the third highest rate of amenable mortality in 1997–1998 (next to Ireland and the United Kingdom) but the second highest rate in 2002–2003 (the highest was the United States) among 19 high-income countries (Nolte & McKee, 2008).

DALE levels in Portugal are worse than the average for the EU15, both for men and for women (Table 1.8). The trend over the period 1999–2002 has been similar to that observed in Spain and the United Kingdom. Men have a clearly lower DALE than women do. More recent data are not available.

Table 1.8
DALE (years), 1999–2002

	1999			2000			2001			2002		
Countries	**MF**	**M**	**F**	**MF**	**M**	**F**	**MF**	**M**	**F**	**MF**	**M**	**F**
Portugal	69	66	73	67	64	69	67	64	69	69	67	72
Spain	73	70	76	71	69	63	71	69	73	73	70	76
United Kingdom	72	70	74	69	68	70	70	68	70	71	69	72
EU15	72	–	–	70	–	–	70	–	–	72	–	–

Source: WHO Regional Office for Europe, 2010.

The number of both total and new tuberculosis (TB) cases has been decreasing over the last decade. In 2007, the incidence rate was down to 29.8 per 100 000 population, from 43.6 in 2000. However, when compared to the data from the EU15, it is still above average.

Portugal is among the countries with the highest prevalence of HIV infection in Europe (20.4 per 100 000 population in 2006), more than twice the highest rates observed in the other EU25 countries. The ACS (*Alto Comissariado para a Saúde*) (through the National Coordinator for HIV/AIDS) has identified a set of priority areas for intervention, such as epidemiological information, health education, national counselling and early detection centres, and national centres for administration of combined therapy and extra-hospital support activities (see section 5.1).

Data on immunization in Portugal are reliable and show the high coverage of the population (Table 1.9). Fig. 1.1 shows a level of measles vaccination coverage that is higher than the EU15 average but below the EU25 average.

Table 1.9
WHO Health for All immunization categories (percentage of children under 3 years), 2008

Category	%
Infants vaccinated against	
TB	98.3
Diphtheria	96.8
Tetanus	96.8
Pertussis	96.8
Poliomyelitis	96.9
Hepatitis B	96.8
Rubella	96.6
Children vaccinated against measles	96.6
Infants vaccinated against invasive disease due to haemophilius influenza type B	96.8

Source: WHO Regional Office for Europe, 2010.

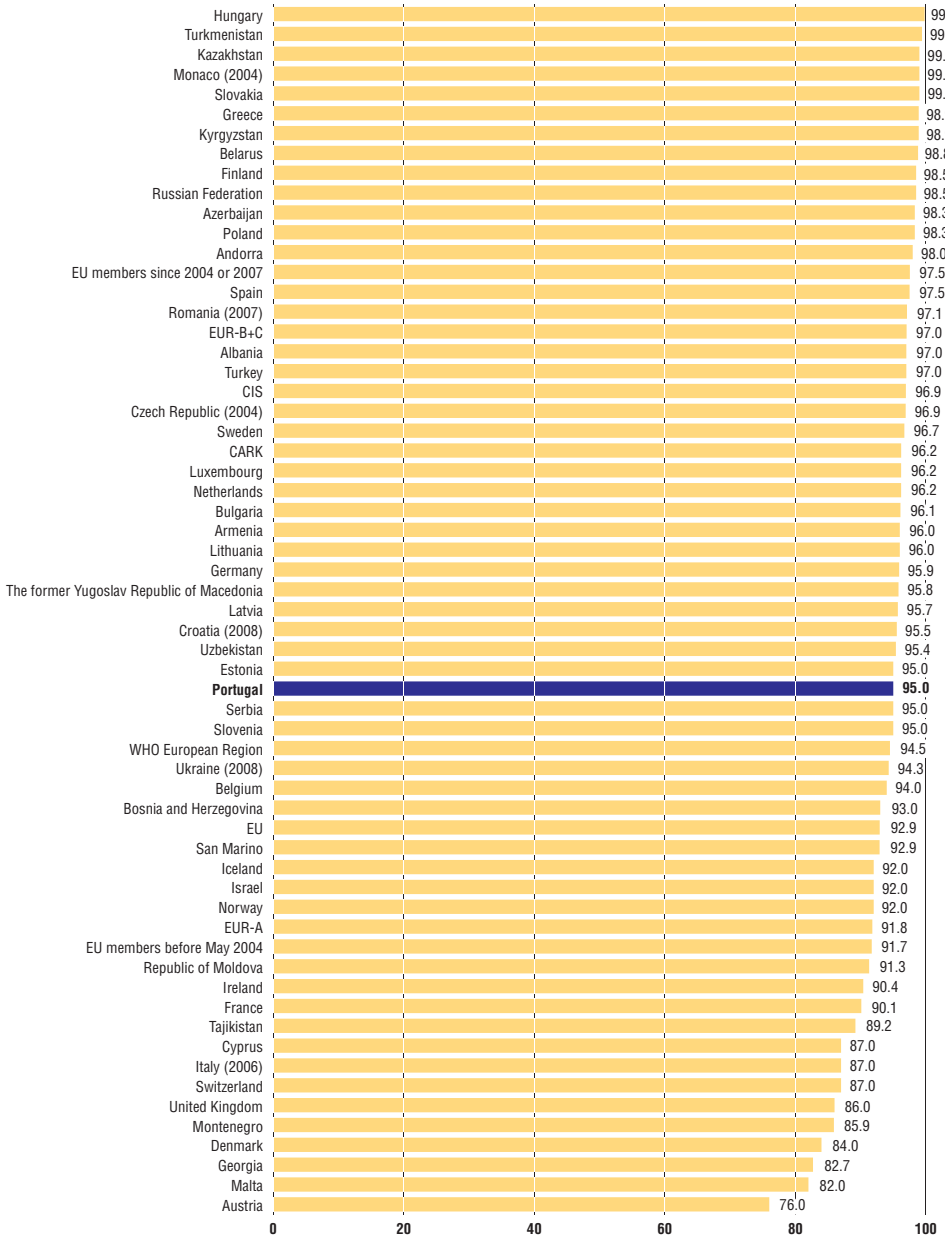
Over recent decades, the health status of the Portuguese population has improved. This is due to both more significant progress in 30% of the municipalities and the diminishing disparities among regions between 1991 and 2001 (Santana, 2005). Both effects are related to the social and health factors that affect health, as can be seen in Table 1.10. Between 2001 and 2006, some indicators have shown improvement. For example, tobacco consumption has decreased among male adults, possibly due to the legislation enacted in 2007 (Law no. 37/2007) that forbids smoking in most public places since 2008. However, almost all the other risk factors – obesity, alcohol consumption – have increased across all age groups. Oral health has also shown some improvements in the short period of time for which data are available (Table 1.11).

There is some concern over regional disparities, particularly between urban-coastal and rural-interior regions. The latter had, and still have, the worst health conditions. Rural regions are also the poorest in the country. Health inequalities are associated with economic and social factors, such as income, educational levels, living conditions, unemployment and health care (coverage, utilization rates, among others). The study led by Santana (2005) shows a wide range of health status among the Portuguese population, based on demographic, social and economic inequalities. Of the 275 municipalities analysed in 1991, 144 (52.3%) showed a health status below the mean and of these most were located in the countryside. By 2001, although there was an improvement in the overall health status, this regional inequality seemed to be unchanged (Santana, 2005).

Overall, over the last decades, Portuguese health indicators became more and more positive. Santana (in Simões, 2009) attributes this fact to two major factors: the promotion of healthy living conditions; and the increase in health

Fig. 1.1

Levels of immunization for measles in the WHO European Region (%), 2009 or latest available year



Source: WHO Regional Office for Europe, 2011.
Notes: CIS: Commonwealth of Independent States; CARK: Central Asian republics and Kazakhstan.

care access and quality. These factors are most likely due to the evolution of the primary and long-term care networks, as well as the recent enforcement of the National Health Plan. Chapter 9 presents the results of a prospective analysis of Portuguese health status.

Table 1.10

Major factors affecting health status, 2001 and 2006

	2001		2006	
	M	F	M	F
Youth				
Tobacco – % of individuals who smoke daily (15–24 years)	25.7	10.6	25.9	14.2
Alcohol – % of individuals who consumed alcohol in the last 12 months (15–24 years)	48.7	25.5	50.1	35.2
Weight – % of individuals with body mass index between 27 and 29.9 (18–24 years)	6.6	4.5	9.4	6.0
Obesity – % of individuals with body mass index ≥30 (18–24 years)	3.0	2.3	4.2	3.4
Adults				
Tobacco – % of smoking individuals (25–44 years)	45.6	17.3	37.6	17.5
Tobacco – % of smoking individuals (45–64 years)	26.8	4.5	25.5	8.4
Alcohol – % of individuals who consumed alcohol in the last 12 months (25–44 years)	86.0	54.1	82.0	54.0
Alcohol – % of individuals who consumed alcohol in the last 12 months (45–64 years)	87.8	48.6	89.2	57.6
Weight – % of individuals with body mass index between 27 and 29.9 (35–44 years)	22.1	16.3	19.8	14.4
Weight – % of individuals with body mass index between 27 and 29.9 (55–64 years)	25.5	22.1	25.4	25.3
Obesity – % of individuals with body mass index ≥30 (35–44 years)	11.3	11.6	12.8	12.7
Older adults				
Tobacco – % of smoking individuals (65–74 years)	14.4	0.9	12.1	1.3
Alcohol – % of individuals who consumed alcohol in the last 12 months (65–74 years)	78.6	38.7	81.7	43.7
Weight – % of individuals with body mass index between 27 and 29.9 (65–74 years)	26.3	21.6	26.4	22.3
Obesity – % of individuals with body mass index ≥30 (55–64 years)	16.2	20.3	22.0	24.3
Obesity – % of individuals with body mass index ≥30 (65–74 years)	14.5	19.5	19.6	23.5

Source: ACS–Ministry of Health, 2009.

Table 1.11

Oral health, 2002–2006

	2002/2003	2004/2005	2005/2006
Decayed, missing or filled teeth (DMFT) at age 12 (%)	3.0	1.5	1.5
Young people in need of dental treatment at age 12 (%)	18.0	43.0	44.0
6-year-old children with no dental decay (%)	33.0	50.0	51.0

Source: ACS–Ministry of Health, 2009.

2. Organization and governance

This chapter provides an overview of how the health system is organized, governed, planned and regulated, its main actors, their decision-making powers and patient empowerment. The more recent development of health services can be traced back to 1946 when the first social security law was enacted: health care was provided for the employed population and their dependants through social security and sickness funds, financed by compulsory contributions from employees and employers. After the revolution of 1974, a process of health services restructuring began, which culminated in the establishment of the NHS, a universal, tax-financed system, in 1979 (Barros & Simões, 2007).

Currently the Portuguese health care system is characterized by three coexisting, overlapping systems: the universal NHS; special public and private insurance schemes for certain professions (health subsystems), covering about a quarter of the population; and private VHI, with estimates of coverage ranging from 10% to 20% of the population.

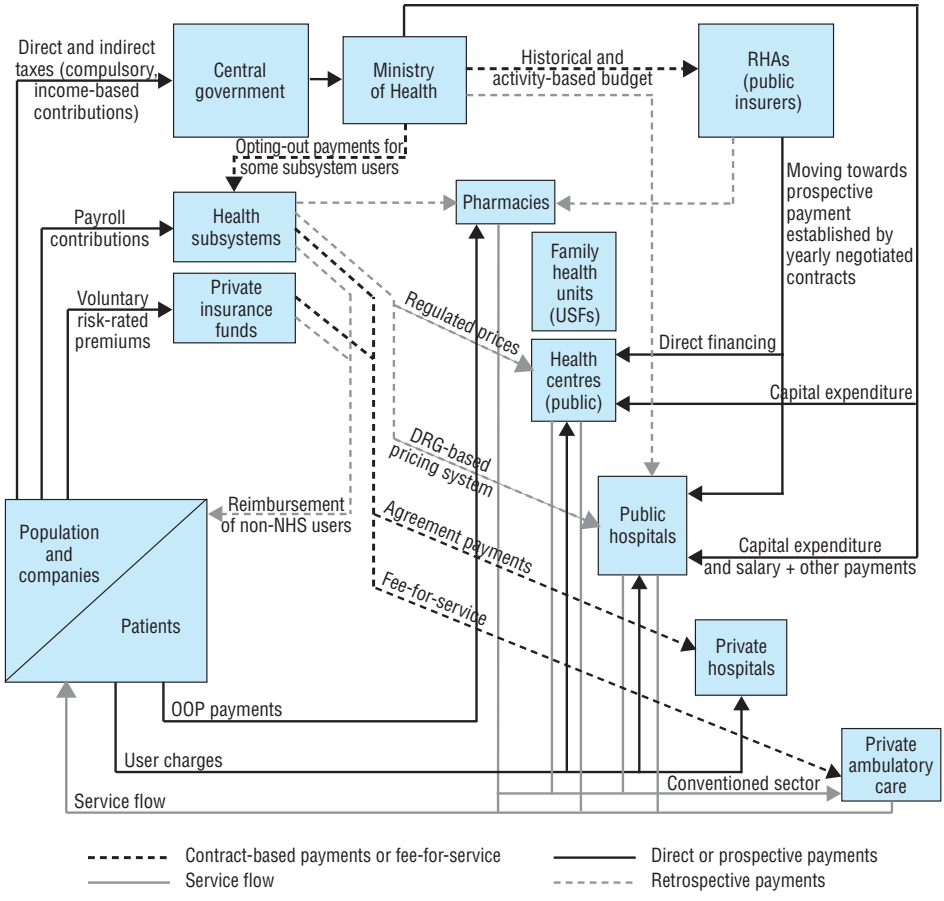
Planning and regulation take place largely at the central level in the Ministry of Health and its institutions. The ACS is responsible for the design, implementation and evaluation of the National Health Plan (the National Health Plan 2011–2016 is currently in development). The management of the NHS takes place at the regional level. In each of the five regions, a health administration board that is accountable to the Ministry of Health is responsible for strategic management of population health, supervision and control of hospitals, management of primary care/NHS primary care centres, and implementation of national health policy objectives. They are also responsible for contracting services with hospitals and private sector providers for NHS patients. Although in theory the RHAs have financial responsibilities, these are limited to primary care since hospital budgets are defined and allocated centrally. All hospitals belonging to the NHS are in the public sector, under

the Ministry of Health jurisdiction. Private sector hospitals, both non-profit-making and profit-making, have their own management arrangements. In 2009, the Ministry of Health published the National Strategy for Quality in Health (Ministry of Health, 2009).

2.1 Overview of the health system

The Portuguese health care system is characterized by three coexisting, overlapping systems: the NHS, special public and private insurance schemes for certain professions (health subsystems), and private VHI. Fig. 2.1 outlines the relationships between the various bodies, organizations and institutions that comprise the health care system.

Fig. 2.1
Overview chart of the health system



The health care delivery system in Portugal consists of a network of public and private health care providers; each of them is connected to the Ministry of Health and to the patients in its own way. The key relationships are shown in Fig. 2.1, with the Ministry of Health coordinating all health care provision and the financing of public health care delivery (Barros & Simões, 2007). Most of the population is entitled to choose between two health care insurers (or can use both): NHS and VHI. Part of the population, approximately 20–25% according to the most recent wave of the National Health Survey (2005/2006), is also covered by a health subsystem; therefore, individuals with this coverage have a third option for the choice of care. Coverage by a health subsystem is compulsory for certain beneficiaries, as it is occupation-based health insurance. Health care providers can be either public or private, with different agreements with respect to their financing flows, ranging from historically based budgets to purely prospective payments. OOP payments make up a significant portion of the financial flows.

2.2 Historical background

In order to understand Portugal's complex health care system, it is important to examine some of the main historical factors that have influenced its development. Table 2.1 summarizes the key reforms that have shaped the development of health care in Portugal over the past century. Prior to the 18th century, health care was provided for the poor only by the hospitals of religious charities called *Misericórdias* (see subsection *Misericórdias* in section 2.3), which are still first and foremost religiously affiliated institutions. During the 18th century, the state established a limited number of teaching hospitals and public hospitals to supplement this charitable provision. This was further extended in 1860 with the appointment of salaried municipal doctors who provided curative services to the poor. The development of public health services did not begin until 1901. The first public health legislation act in 1901 enabled the creation of a network of medical officers responsible for public health. A further public health law was introduced in 1945, which established public maternity and child welfare services. It was also under this law that the national programmes for TB, leprosy and mental health, which were already operating, were legally established (Barros & Simões, 2007).

The more recent development of health services can be traced back to 1946 when the first social security law was enacted. Health care provision at this time followed the Bismarckian model, which provided cover for the employed population and their dependants through social security and sickness funds.

Table 2.1

The health care system: historical background and recent reform trends – timeline

1901	The first act of public health legislation was published, whereby a network of medical officers responsible for public health was created. It followed the international trend set by several institutions, which tried to develop the basis of the public health movement. This is thought to be the root of "modern sanitarism" (Ricardo Jorge reform).
1940	The first (specific) Health Department within the Ministry of Internal Affairs was established.
1944	The Social Services Statute was published, comprising a "minimum state intervention" principle in the social arena.
1945	Public maternity and child welfare services were established. Vertically organized national institutes and programmes for TB, leprosy and mental health, which were already operating, were also legally established.
1946	The law was passed that laid the groundwork for hospital organization and the promotion of new hospital buildings, financed by government funds, but run by *Misericórdias*. Hospital regionalization was initiated. Hospitals were to reorganize into three levels, namely municipality, district and region, ensuring technical cooperation among them. A mandatory social health insurance system for a limited number of professions was created: the *Caixas de Previdência*.
1958	The Ministry of Health and Assistance was created.
1963	Statute of Health and Assistance, according to which the state is obliged to co-finance the installation and functioning of health facilities.
1968	The Hospitals Regulatory Act defined the nature and attributions of hospital care.
1971	The state was acknowledged to be responsible for health policy and implementation, for the integration of health activities, and for investment in disease prevention and health promotion. Citizens' right to health was also recognized. Primary care centres were created.
1974	The democratic revolution occurred on 25 April, which ended a long period of right-wing political dictatorship. As a result, health services administration was taken from private holders that had been financed mainly by public funds, aiming to give the whole population access to health care, irrespective of ability to pay.
1976	The Portuguese Constitution was approved, which embodied citizens' right to health care. It recognizes citizens' right to health care by "the creation of a universal, free-of-charge National Health System".
1979	The NHS Law created a universal health system, free at the point of use.
1982	The career of general practitioners (GPs)/family doctors was created.
1988	The Law on Hospital Management established guiding principles for NHS hospitals, including entrepreneurial management, decentralization of decision-making through intermediate responsibility centres and nomination of management boards by the government.
1989	The first pricing list based on DRGs was issued for third-party payers with respect to NHS hospital inpatient use by their beneficiaries. The Portuguese Constitution was reviewed, and now states that the "National Health Service is universal and tends to be free of charge, taking into account citizens' social and economic conditions".
1990	The Law on the Fundamental Principles of Health introduced new principles for the organization and functioning of the health system. Inter alia, an explicit role was assigned to the private profit-making and non-profit-making sectors through contracting with the NHS; the system's operation and management was decentralized to the regional level and user charges were introduced for ambulatory services. Private practice was allowed in public hospitals, under certain conditions related to the seniority and position of physicians as well as to the status of exclusive employment in the NHS. Private financing of health care was allowed, and incentives for private health insurance were given. The possibility of creating an alternative health insurance system was also approved.
1993	The Statute of the NHS was published in order to accommodate the changes introduced by the Law of Fundamental Principles of Health in 1990, namely the decentralization of the health system, the integration of primary care centres and hospitals in health units and the contracting out of NHS services. The new internal organization of the Ministry of Health was published. A Decree on the statutory regulation of private health entities was issued in order to ensure the accomplishment of quality standards. Five RHAs (*Administração Regional de Saúde*) were established.
1995	The first attempt at putting an NHS hospital under the management control of a private consortium was initiated with the launch of a public bid for proposals according to a set of predefined terms.

1997	Contracting agencies (initially named accompanying agencies) were created – one in each RHA – with the overall aim of providing the basis for the payment and provider split within the NHS. The contracting agencies should also promote means of citizens' participation in health decision-making.
1998	An experimental payment system for GPs working at primary care centres was introduced. The intention was to pay according to capitation and performance, instead of the traditional payment by fixed salary. Enrolment in this experimental system was voluntary. The National List of Health Equipment was published for the first time. A law on the principles of mental health policy was published, whereby community care is given priority over institutional care under different arrangements. The law also regulated the compulsory inpatient status of individuals with mental illness.
1999	The National Health Strategy and goals for the period 1998–2002, involving a broad range of social partners, was published as a revised version of an internal document issued in 1998. Legislation was passed creating local health systems and reforming primary care centres. Local health systems were integrated into frameworks for hospitals, primary care centres and other health care provider entities. Primary health care reform was based on financially autonomous primary care centres, with networks of primary health care teams. This legislation was not implemented. The Local Health Unit of Matosinhos became the first example of effective integration of local hospitals and related primary care centres into a unique provider entity. A law was approved in Parliament to fund a special programme to reduce waiting lists for surgical procedures at NHS hospitals. The contracting out of non-NHS entities was allowed only after internal capacity was fully used. Responsibility Centres in hospitals were set up as a means of establishing intermediate management levels and promoting decentralization of authority and of responsibility, in order to achieve higher levels of efficiency in the NHS.
2000	The use of an NHS Identity Card became mandatory.
2001	Regulations for the licensing and evaluation of private clinics and dentists' private practices were published.
2002	A framework for the implementation of PPPs for the building, maintenance and operation of health facilities was created, along with the identification of the basic principles and instruments. A new law on the management of hospitals was issued to enable the changeover of some institutions into public enterprises. A total of 34 hospitals, corresponding to approximately 40% of all NHS hospitals, were transformed into public enterprises. A Decree established NHS drugs prescription using the common international denomination (International Nonproprietary Name, INN) as obligatory, as well as the conditions under which prescribed brands can be substituted by generics when dispensing. Reference prices for pharmaceuticals were introduced to cap state co-payment levels.
2003	The Health Regulatory Agency (HRA) was created to ensure that citizens have access to health care and to guarantee competition among health care providers.
2004	The National Health Plan for 2004–2010 was approved.
2005	A law was passed allowing the selling of over-the-counter (OTC) products in other authorized establishments (i.e. outside pharmacies). The number of hospitals transformed into public enterprises was increased. A new legal statute was adopted to signal that there was no intention of privatization.
2006	Family health units (USFs) were created. The goal is to bring GPs closer to patients. The GP payment system depends on their performance and on the case-mix of their patients.
2007	The values of co-payments were updated. Co-payment was expanded to ambulatory surgery and hospital admission. The prices of pharmaceutical products decreased for the second consecutive year, by administrative ruling. A major restructuring of the Ministry of Health is under way.
2008	The *Charter of patients' rights to access health care* was published. An administrative ruling lowers the maximum price of generic drugs.
2009	The Ministry of Health approved the National Strategy on Quality in Health Care. Hospitals are allowed to host pharmacies (other than the hospital pharmaceutical department). The co-payment on inpatient admissions is abolished.
2010	The Ministry of Health set the new paediatric age at up to 18 years old. All the hospitals are forced to present a plan to reduce expenses, due to the economic crisis in the country. The shortage of physicians leads to the hiring of retired physicians by the Ministry of Health. The prescription of unit dose pharmaceuticals is approved. The Ministry of Health nominates the Group for the Primary Health Care Reform, together with the new governance model for the reform.

This social welfare system was financed by compulsory contributions from employees and employers, and provided outpatient curative services, free at the point of use. Cover was limited to industrial workers in the first instance, with other sectors of the workforce and their dependants added through extensions to the system in 1959, 1965 and 1971 (Barros & Simões, 2007).

Until 1971, the government did not assume responsibility for providing health care services to the population. Health care provision therefore consisted of many small independent and uncoordinated subsystems that were used in order to accomplish any kind of health policy objective. By 1971, the right to health of the citizens was recognized. This laid the groundwork for certain measures to be taken after the 1974 revolution. Charity and private institutions are no longer the "owners" of health care delivery to the population. Among the measures taken in 1971 were those regarding disease prevention and health promotion. These were issues of great concern in the international community, as can be seen by the resolutions taken in Alma-Ata, seven years later. Despite the efforts made prior to 1979, the following major problems still existed (for more information on the evolution of the Portuguese health system, see Simões, 2004):

- asymmetric geographical distribution of health facilities and human resources;
- poor sanitation;
- population coverage not being universal (although there is no precise estimate of coverage);
- centralized decision-making;
- no coordination among existing facilities and providers, and little evaluation;
- multiple sources of financing and a disparity in benefits among population groups;
- discrepancy between legislation and policy, and the actual provision of health services; and
- low remuneration of health professionals.

The move towards greater public provision of health care and a commitment to universality was embodied in the legislation passed in 1971. This law, although never fully implemented, gave priority to prevention over cure and sought to integrate health policy in the context of wider social policies, that is, to include protection of the family and disabled people and other health-related social welfare activities.

After the revolution of 1974, a process of health services restructuring began, which culminated in the establishment of the NHS in 1979. First, in 1974, district and central hospitals owned by the religious charities were taken over by the government. Local hospitals followed in 1975 and were integrated with existing health services. Finally, in 1977, the government assumed ownership of and responsibility for 2000 medical units or health posts situated throughout the country. These had previously been operated under the social welfare system for the exclusive use of social welfare beneficiaries and their families. The principle of citizens' right to health was embodied in the Portuguese Constitution as early as 1976 and was to be delivered through "a universal, comprehensive and free-of-charge National Health Service". After the Constitution's revision (1989), the "free of charge" was changed to "approximately free of charge", a term that has been subject to a discussion about its exact meaning (essentially, detailing the legal meaning of the term to make clear that the Constitution did not preclude the existence of co-payments in the NHS). The law enabling the implementation of this principle was not passed until 1979. The 1979 law establishing the NHS laid down the principles of centralized control, but with decentralized management. Central, regional and local bodies were established to this end. The law brought together public health services and the health services provided by the social welfare system, leaving the general social security system to provide cash benefits and other social services (e.g. for older people and children) (Barros & Simões, 2007).

In sum, by 1979, the following features of the health system were established: legislation had been introduced to establish the right of all citizens to health protection; a guaranteed right to universal free health care through the NHS; access to the NHS for all citizens regardless of economic and social background; integrated health care, including health promotion, disease surveillance and prevention; and a tax-financed system of coverage in the form of the NHS. (Only when health care could not be provided through the NHS would outside services be covered.)

Before 1979 and the establishment of the NHS, the Portuguese state had traditionally left the responsibility for paying for health care to the individual patient and her/his family. However, several institutions had an active role in health care provision. Some of the largest companies in the country developed protection mechanisms, which later on gave rise to subsystems. Care of the poor was the responsibility of charity hospitals and care outside of hospital remained the responsibility of the Department of Social Welfare. The state only took full responsibility for the costs of health care for civil servants. Otherwise

the state provided limited preventive care, maternal and child health care, and had some interventions in the control of infectious diseases and mental health (Barros & Simões, 2007).

Despite the development, with the NHS, of a unified publicly financed and provided health care system and the incorporation of most of the health facilities previously operated by the social welfare system and religious charities, some aspects of the pre-NHS system persisted. In particular, the health subsystems (from the Portuguese *subsistemas*) continued to cover a variety of public and private employees. These schemes offered greater choice of provider than would be available under the NHS and a higher reimbursement level when patients resort to private providers. Consequently, the trade unions, which ran and managed some of the funds, forcefully defended them on behalf of their members. In the autonomous regions of Azores and Madeira, health policy followed the same general constitutional principles of the NHS, but was implemented locally by regional governments who retained full flexibility.

In addition, private provision has always been available, mainly in ambulatory care (although some in hospital care as well). Physicians' and dentists' private offices (evolving over time into small clinics), laboratory tests, radiology and imaging, and pharmaceutical products are the main areas of private provision.

It is possible to identify several stages in the Portuguese health policy since 1979. In the early 1980s, the debate was centred on developing an alternative to the recently created NHS. Between 1985 and 1995, health policy has tried to foster market mechanisms, particularly in the provision of health care. Between 1995 and 2002, the Portuguese health care system evolved into what one could call an even more public NHS through a number of policies that drifted away from the market-driven health care provision. The main reforms concerned contracting of health care, the organization and governance of the public health care services and the payment of professionals. From 2002 to 2005, the NHS became a mixed system, based on the interaction between the public and the private sector, integrating primary, secondary and long-term care (Barros & Simões, 2007). Between 2005 and 2009, Portuguese health policy aimed to combine the universal coverage provided by the NHS and the promotion of efficiency.

At the end of the first decade of the 21st century, health in Portugal faced a number of challenges:

- a major increase in health expenditure and difficulties with cost control;
- technology and innovation in medical practice, with its impact on the growth of expenditures;

- the increasing role of information technology (IT) in health promotion and health care delivery, so as to make them effective tools to bring the population in remote locations closer to health care services;
- an ageing population, with the associated pressures on continued and long-term care, among others; and
- difficulty in reducing mortality due to traffic accidents and lifestyle-related diseases (despite the marked improvement in the last couple of years, there is still room for further reductions; see Simões, 2009 for more details on the evolution of the NHS since 1979).

The discussion of how these problems are being addressed through further reforms is included in the following chapters of this report. The relevant legislation and reforms are discussed in detail in Chapter 6.

2.3 Organizational overview

This section describes the administrative structure of the NHS.

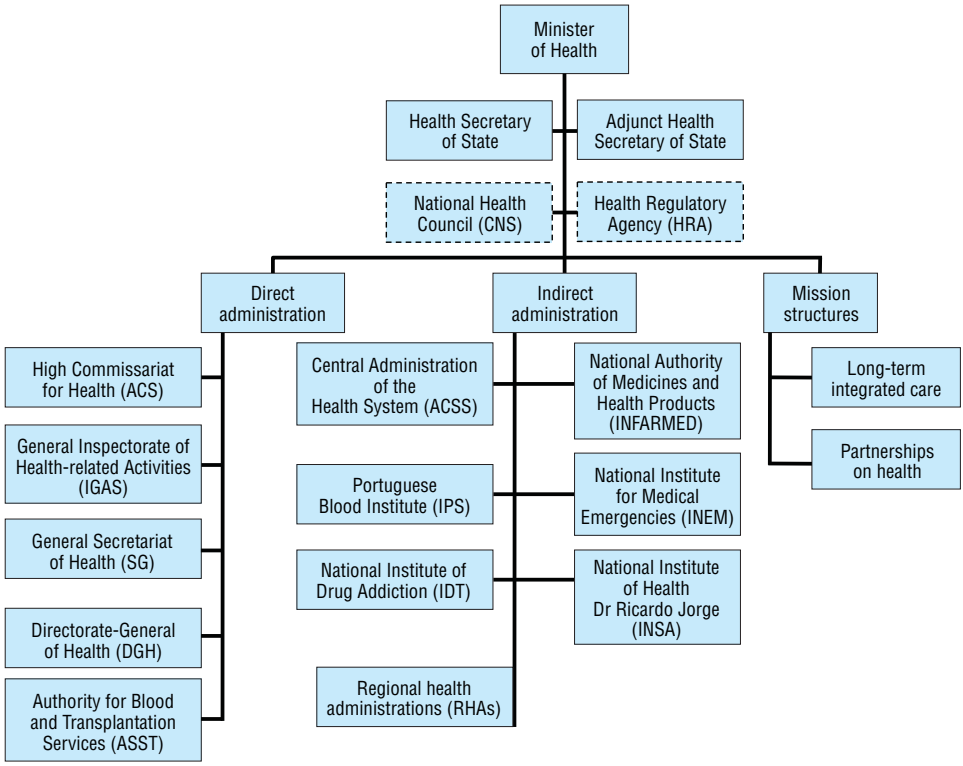
2.3.1 Ministry of Health

The central government, through the Ministry of Health, is responsible for developing health policy and overseeing and evaluating its implementation. Fig. 2.2 outlines the organization of the Ministry of Health. Its core function is the regulation, planning and management of the NHS. It is also responsible for the regulation, auditing and inspection of private health services providers, whether they are integrated into the NHS or not.

The policy-making process takes place within government offices with little or no information being released publicly. Enactment of government rulings often goes to institutional partners for consultation, though no public account of draft legislation and comments and opinions expressed about it are available. Usually, there is no detailed evaluation plan or ex-post assessment of policy measures. The implementation of the policies is a task for the RHAs. The Ministry of Health performs some assessment and audit, as well as the Court of Auditors and the General Inspectorate of Health-related Activities (IGAS), but the process of policy evaluation is far from systematic.

Many of the planning, regulation and management functions are in the hands of the Minister of Health. The Secretaries of State have responsibility for the first level of coordination, under delegation of the Minister of Health.

Fig. 2.2
Organizational chart of the Ministry of Health



Note: Dotted lines represent some degree of independence from the Ministry of Health.

The Ministry of Health is made up of several institutions: some of them under direct government (*Estado*) administration; some integrated under indirect government administration; some having public enterprise status; an HRA and a consultative body. The HRA is formally independent in its actions and decisions, though its budget comes mostly from the Ministry of Health.

The following central services are under the state's direct administration, which means that they are run by the Ministry of Health (in terms of their hierarchic relation).

- **The High Commissariat for Health (ACS)**

  The ACS provides technical support on policy development and strategic planning in the health sector; it assures international relations coordination; it assesses policy execution, planning instruments and

results; and it elaborates, coordinates and evaluates the National Health Plan, as well as all the macro-statistics related to the National Health Plan indicators and targets.

- **The General Inspectorate of Health-related Activities (IGAS, *Inspecção-Geral das Actividades em Saúde*)**

  The IGAS performs the disciplinary and audit function for the NHS, and audits NHS institutions and services.

- **The General Secretariat of Health (SG, *Secretariado-Geral da Saúde*)**

  The SG provides technical and administrative support to the other sections of the Ministry, coordinates their work and provides assistance to staff within various government offices. The SG gives support to other institutions, services and bodies not integrated within the NHS, concerning internal resources, legal advice, information and public relations.

- **The Directorate-General of Health (DGH, *Direcção-Geral da Saúde*)**

  The DGH plans, regulates, directs, coordinates and supervises all health promotion, disease prevention and health care activities, institutions and services, whether or not they are integrated into the NHS. The DGH is also responsible for public health programmes, quality and epidemiological surveillance, health statistics and studies.

- **The Authority for Blood and Transplantation Services (ASST, *Autoridade para os Serviços de Sangue e Transplantação*)**

  The ASST guarantees quality and safety regarding donation, analysis, processing, storing and distribution of human blood and blood components, as well as human organs, tissues and cells.

The following central services are under the state's indirect administration, including public institutes or state-owned companies.

- **Central Administration of the Health System (ACSS, *Administração Central do Sistema de Saúde*)**

  The ACSS is in charge of the management of financial and human resources, facilities and equipment, systems and IT of the NHS. It is also responsible for the definition of policy, regulation and planning of health, along with the RHAs, namely in the area of health service contracting.

- **The National Authority of Medicines and Health Products (INFARMED, *Autoridade Nacional do Medicamento e Produtos de Saúde*)**

  INFARMED regulates and supervises the pharmaceuticals and health products sector, following the highest standards of public health protection (see section 5.6). It aims to ensure that all health care professionals and patients have access to safe, efficient and quality pharmaceuticals and other health products.

- **The National Institute for Medical Emergencies (INEM, *Instituto Nacional de Emergência Médica*)**

  The INEM delineates, participates in and assesses the activities and performance of the Integrated System of Medical Emergency, guaranteeing immediate assistance to injured or severely ill patients (see section 5.5).

- **Portuguese Blood Institute (IPS, *Instituto Português do Sangue*)**

  The IPS regulates, at a national level, the pharmaceuticals related to transfusions and guarantees there is a stock of secure blood and blood components available when needed.

- **National Institute of Drug Addiction (IDT, *Instituto da Droga e da Toxicodepência*)**

  The IDT promotes the reduction of both legal and illegal drugs consumption, as well as the prevention and treatment of drug addictions.

- **National Institute of Health Dr Ricardo Jorge (INSA, *Instituto Nacional de Saúde Dr Ricardo Jorge*)**

  This Institute is a state laboratory, the aim of which is to increase gains in the public health sector, along with health monitoring and epidemiological surveillance, either in the field of laboratory or genetic medicine. It is responsible for conducting, coordinating and promoting health research at the Ministry of Health. It also has the objective of producing evidence for policy and action in public health.

- **Regional health administrations (RHAs)**

  The NHS, although centrally financed by the Ministry of Health, has had a strong regional structure since 1993 comprising five health administrations: North, Centre, Lisbon and Vale do Tejo, Alentejo and

the Algarve. In each region a health administration board, accountable to the Minister of Health, manages the NHS. The management responsibilities of these boards are a mix of strategic management of population health, supervision and control of hospitals, and centralized direct management responsibilities for primary care/NHS primary care centres.

The RHAs are responsible for the regional implementation of national health policy objectives and coordinating all levels of health care. They work in accordance with principles and directives issued in regional plans and by the Ministry of Health. Their main responsibilities are the development of strategic guidelines; coordination of all aspects of health care provision; supervision of management of hospitals and primary health care; establishment of agreements and protocols with private bodies; and liaison with government bodies, *Misericórdias*, other private non-profit-making bodies, and municipal councils. They are also in charge of the development of a long-term care network.

There are other bodies related to health care that do not belong to the Ministry's administration, either directly or indirectly.

- **National Health Council (CNS, *Conselho Nacional de Saúde*)**

  The CNS is the consultative body for the Ministry of Health. It is responsible for issuing recommendations and advice on measures to enforce the implementation of health policy objectives. This Council has never actually been put to work, despite its legal existence.

- **Health Regulatory Agency (HRA)**

  The Health Regulatory Agency is an independent body responsible for the competition policy and economic regulation of the health care sector (see section 2.7).

- **Task forces (*Unidades de Missão*)**

  The task forces (or missions) are responsible for the design, follow-up and analysis of a specific health policy problem/sector. Currently, the Ministry has designated a Mission for Long-term Integrated Care and a Mission for Partnerships in Health. The Mission for Primary Health Care has recently been dismissed, after contributing to the recent reform of primary health care, which has been implemented.

2.3.2 Ministry of Finance

The creation of new posts within the NHS, whether hospital-based or not, requires the approval of the Ministry of Finance. The government has to approve the projects presented by the Ministry of Finance, based on a proposal by the Ministry of Health for these new posts to be included within the state budget (which includes the NHS budget). The state budget is discussed and approved afterwards in Parliament (see section 3.3.3 *Pooling of funds* for more information about this process). The Ministry of Finance also sets the budget for public subsystems.

2.3.3 Ministry of Labour and Social Solidarity

This Ministry is responsible for social benefits such as pensions, unemployment benefits and disability benefits. In 2000, 10.3% of GDP was allocated to social security. In 2008, this percentage rose to 17.6% (Ministry of Labour and Social Solidarity and INE/Portuguese Central Bank, 2009 – figures available at Pordata, see section 9.4). The Ministry's collaboration with the Ministry of Health has improved in recent years. Joint projects include a review of certification for absence from work, a programme to improve coordination between health and social care services and an initiative to improve continuity of long-term care for older people and people with disabilities. The relations between the two ministries in the long-term care network are described in section 3.6.3 *Other sources of financing.*

2.3.4 Ministry of Science and Higher Education

The Ministry of Science and Higher Education is responsible for undergraduate medical education and for academic degrees. Specialty postgraduate training in medicine, however, is the joint responsibility of the Medical Association (*Ordem dos Médicos*) and the Ministry of Health.

2.3.5 Local government

Below the RHAs are the municipalities. For the purposes of health care provision, boundaries are based on geographical proximity rather than administrative areas, so the definitions for the purposes of the Ministry of Health are not exactly coterminous with administrative boundaries.

A number of initiatives are being undertaken in cooperation with the municipalities, such as promoting greater traffic and pedestrian safety and encouraging physical exercise. Nutrition is also being promoted in close

cooperation with the media, the educational system, sports organizations and local authorities. Overall, however, the role of municipalities in the Portuguese health system is rather marginal. There is no formal evidence on the subject, but it is possible to make a conjecture that the involvement of the municipalities in health promotion and improvement programmes has not expanded beyond a few specific projects, namely in child oral health, environmental health and healthy behaviours.

2.3.6 Health subsystems

Almost three decades after the inception of the NHS in Portugal, the historical remnants of the pre-NHS social welfare system still persist in the form of health insurance schemes for which membership is based on professional or occupational category. These are often referred to as health "subsystems" (*subsistemas*). In addition to the health insurance coverage provided by the NHS, approximately 25% of the population is covered by the health subsystems or VHI. More precisely, approximately 16% of the population are covered by a health subsystem, approximately 10% are covered by VHI and less than 2% have cumulative coverage from both VHI and health subsystems (INSA, 2007). Health care is provided either directly or by contract with private or public providers (and in some cases by a combination of both). Access is generally limited to members of a specific profession and their families.

In 2005, the main subsystems operating in the public sector were consolidated into one subsystem, the ADSE (*Assistência a Doença dos Servidores do Estado*), for civil servants. Therefore, the benefits are now standardized across the health subsystems. Before 2005 the separate subsystems included:

- SSMJ (*Serviços Sociais do Ministério da Justiça*) for employees of the Ministry of Justice;
- ADMA (*Assistência na Doença aos Militares da Armada*) for the Navy;
- ADME (*Assistência na Doença aos Militares do Exercito*) for the Army;
- ADFA (*Assistência na Doença aos Militares da Forca Aérea*) for the Air Force;
- SAD PSP (*Assistência na Doença da Polícia de Segurança Pública*) for Police Agents; and
- SAD GNR (*Serviços de Assistência à Doença à GNR*) for National Republican Guards.

In the private sector, the major health subsystems include that of Portugal Telecom (PT-ACS, *Associação de Cuidados de Saúde*) for the employees of the historic telecommunications operator and for postal service employees, and a health subsystem for banking and associated insurance employees (SAMS, *Serviços de Assistência Médico-Social*), set up by their respective unions on a regional basis. There are also a few additional smaller funds. Most health subsystems are members of the National Association of Health Subsystems. Some of the funds are associated with and run by trade unions and managed by boards of elected members. PT-ACS was the first fund to sign an opting-out contract with the Ministry of Health. Put simply, this contract consists in defining an amount of money the PT-ACS receives from the Ministry; the counterpart is not being able to benefit from the almost free-of-charge rates within the NHS, since the members of PT-ACS are no longer covered by the NHS. The firm cancelled the contract, effective from January 2007, mainly for financial reasons.

The Ministry of Finance controls the largest health subsystem, ADSE, which was mandatory for all civil servants. Currently, newly hired civil servants may choose to stay out of ADSE. It covers almost 10% of the population (with 1.3 million enrolled beneficiaries). Private health care providers mainly fulfil a supplementary role to the NHS rather than providing a global alternative to it. Private sector activity continues to prosper, despite the establishment of the NHS, and now mainly provides diagnostic, therapeutic and dental services as well as some ambulatory consultations, rehabilitation and psychiatric care services. The key agents are private practitioners, *Misericórdias*, and private hospitals and clinics. The majority of specialist consultations take place in the private sector, whereas the public sector provides the overwhelming majority of GP consultations. According to the most recently available data obtained from the 4th National Health Survey (INSA, 2007), the private sector accounts for 31% of all medical consultations in ambulatory care. Most primary care centres only have GPs, who act as gatekeepers to access specialists. Almost all appointments with specialists in the NHS have to be carried out in the outpatient departments of hospitals. Patients with less severe conditions and/or with the necessary financial means may opt for private practice specialists in ambulatory care, which explains their role and market share.

2.3.7 Misericórdias

Misericórdias are independent non-profit-making institutions with a charitable background. The Lisbon *Misericórdia* is an exception, because it is a public enterprise with a board that is nominated jointly by the Ministry of Health and

the Ministry of Labour and Social Solidarity rather than elected by members. These institutions currently operate very few hospitals (a total of 15 hospitals distributed all over the country, but concentrated in the North, where there are 10), despite their historical role as one of the main providers of health care. Most of the institutions are now focused on the provision of long-term care, as together they constitute the largest provider in the RNCCI, both in terms of units and capacity.

2.3.8 Private health insurance companies

On the financing side, the main private actors are the private health insurance companies. VHI was introduced in 1978 (see section 3.5). Initially, only group policies were offered, but individual policies have also been available since 1982. Approximately 10% of the population was covered by VHI in 2006 (INSA, 2007). There is a mechanism of double coverage in place, hence increasing the number of mostly specialized medical appointments. People can even benefit from triple (or more) coverage, that is, from the NHS, a health subsystem from their job, VHI and having coverage from another health subsystem as an extension of their spouse's coverage. It is not uncommon for beneficiaries of health subsystems to sign up to VHI as well. Based on the 4th National Health Survey (INSA, 2007), access to either VHI or health subsystems coverage is associated with better self-reported health status, and with higher usage of services. Subsystem beneficiaries are also probably more educated and have more income than the average member of the population at large.

2.3.9 Professional associations and unions

There are three main representative organizations for doctors: the *Ordem dos Médicos* (Medical Association) and two main unions, the National Medical Federation (FNAM, *Federação Nacional dos Médicos*) and the Independent Medical Union (SIM, *Sindicato Independente dos Médicos*). Membership of the *Ordem dos Médicos* is mandatory for practising physicians. Its functions include:

- accreditation and granting of licences to practise;
- accreditation and certification of specialist training; and
- application of the disciplinary code, with powers to warn and punish doctors.

As for the unions, their main role is to advocate for physicians' rights as employees, mostly concerning wages and employment issues.

Equivalent bodies also exist for pharmacists (*Ordem dos Farmacêuticos*, founded in 1972; the first Pharmacists' Union was created in 1837, as *Sociedade Farmacêutica Lusitana*), for dentists (Medical Dentists Federation (OMD, *Ordem dos Médicos Dentistas*, founded in 1991), for nurses (*Ordem dos Enfermeiros*, founded in 1998) and psychologists (*Ordem dos Psicólogos*, founded in 2008).

The National Association of Pharmacies covers almost 95% of pharmacies, although membership is optional. It has a powerful corporate role and operates as a fund, handling the majority of pharmaceutical payments between the NHS and the associated pharmacies. Its mission includes modernization of the facilities and organizational models; continuous education and training of pharmacists; dissemination of information on state-of-the-art practices in pharmaceuticals management and dispensing; implementation of a global computerized information system for the pharmacies; and collaboration with the state in projects and campaigns in the public health domain.

2.3.10 Patient groups

Organizations specifically advocating for patients are active disease-based advocacy groups, such as those devoted to diabetes, cancer, haemophilia and HIV/AIDS. These groups are specifically interested in the patients and families who are affected by these diseases, promoting the allocation of resources for the care and treatment of patients in those particular disease groups, as well as charity and awareness campaigns (see section 2.8.5 *Patient participation*).

2.4 Decentralization and centralization

Decentralization is formally a key word of the NHS constitutional framework. The Law on the Fundamental Principles of Health (1990) states that the NHS is managed at the regional level, with responsibility for the health status of the corresponding population, the coordination of health services provision at all levels and the allocation of financial resources according to the population needs. This is in line with the reform trends in many European countries, which have regarded decentralization as an effective means to improve service delivery, to better allocate resources according to need, to involve the community in health decision-making and to reduce inequities in health. In practice, however, responsibility for planning and resource allocation in the Portuguese health care system has remained highly centralized, even after the current five RHAs were established in 1993. The Minister of Health appoints RHAs. In theory, the creation of the RHAs conferred financial responsibility: each RHA was

to be given a budget from which to provide health care services for a defined population. In practice, however, RHAs' autonomy over budget setting and spending has been limited to primary care, since hospital budgets continued to be defined and allocated by the central authority. It is also the case that the Minister of Health appoints hospital administration boards.

At the hospital level, the delegation of responsibility down the line of management, allowing lower-level managers greater power to deploy resources more efficiently, was the rationale for the creation of "responsibility centres". These centres were meant to group hospital services and units of an adequate management dimension under criteria of homogeneity of production and complementarities of objectives, with the aim of coordinating medical specialties better, containing costs and strengthening competition. To date, there are currently very few responsibility centres, as their creation never gained momentum. The more general reforms on hospital management led to a de facto neglect of these types of centres. No more responsibility centres have been created, nor have the existing ones been eliminated.

Despite this, the creation of "*Hospitais EPE*" (see section 3.7.1 *Paying for health services*) from 2005 (which replaced and expanded, in terms of hospitals included, the move towards more entrepreneurial status) and the recent primary health care reform (see section 5.3) point to a high level of responsibility at the institutional level. The RHAs' and other ministry authorities' role is more to supervise policy implementation and assess results.

Successful decentralization depends on the social and cultural environment, in addition to laws and regulations. The historically centralized nature of the Portuguese health care system will be changed only when the reform initiatives last long enough to guarantee ideological certainty in the implementation of the changes that are needed.

2.5 Planning

The ACS is responsible for the design, implementation and follow-up of the National Health Plan (see section 2.3). The Plan involves a large number of players, including policy-makers, academics, health professionals and members from the civil society; it also sets the main guidelines, strategy and objectives for the whole country, for a given period of time. The National Health Plan 2004–2010 is in its final stage, and the National Health Plan 2011–2016 is being discussed at the time of writing.

A separate central investment plan governs capital outlays within the NHS. Capital investment has traditionally been the responsibility of the DGH. However, a functional revision of the Institute for the Financial Administration of Health (IGIF, *Instituto para a gestão financeira da saúde*) in 2000 extended its responsibility to that area. In 2007, under the civil service general reform, a new body (the ACSS) was created and it took over the duties of the IGIF. Most of the investment is provided internally by the Portuguese state budget through the Central Administration's Investment and Development Plan (PIDDAC, *Programa de Investimentos e Despesas de Desenvolvimento da Administração Central*). There has also been joint funding of hospital and health centre developments with the EU through the European Regional Development Fund (ERDF).

Legislation in 1988 gave the Ministry of Health total control over the procurement and installation of high-technology equipment both within the NHS and in the private sector. The legal guidelines for installing expensive equipment (big-ticket technologies), which established ratios of equipment per inhabitant, were abolished in 1995. However, the principle of prior authorization by the Ministry of Health for equipment within the NHS was retained. In 1998, a national list of health equipment was published (Ministry of Health, 1998), describing the distribution of specific items of equipment and services throughout the country, regional variations in equipment, the amount of equipment in public and private facilities, and the age of equipment. It was not primarily intended as a tool for determining the distribution of equipment, but rather it aimed to enable planners and hospitals to identify areas where there were gaps in service provision. In 2008 and 2010, the National Coordination for Neoplasms updated the list of radiotherapy equipment (available at the Ministry of Health web site; see section 9.4).

In 2001, the Ministry of Health issued formal guidelines for the development of regional master plans for NHS hospital and primary care facilities. The intention was to turn the regional master plans into core instruments for the harmonious and integrated development of NHS infrastructures at the national level. However, few developments have been made in order to accomplish the stated objectives. The planning of health care personnel is described in section 2.7.3 *Registration/licensing and planning of health care personnel*.

2.6 Health information management

2.6.1 Information systems

Several information systems are run by the National Health Observatory (ONSA, *Observatório Nacional de Saúde*): the National Health Survey, the Sentinel Network of GPs, the National Register of birth defects, and the home and leisure accidents surveillance system. Reports on the health of the population have been produced by the DGH since 1997 (see section 5.1). The WebSIG (see section 9.4) developed by the ACS is an important tool to follow the evolution of the National Health Plan indicators (ACS–Ministry of Health, 2009; DGH–Ministry of Health, 2009).

The introduction of a Patient Identity Card in Portugal in 1995 followed an international trend in that direction that emerged within the EU. The main advantage of a Patient Identity Card is to identify clearly the entity that is financially responsible for the care provided to each patient on the one hand, and to identify exemptions from co-payments that legally exist on the other. The main impetus for the creation of the Patient Identity Card originated in the early 1990s, but it was slow to roll out. The card is free of charge to citizens. The RHAs are responsible for issuing the card. Despite the slow roll-out, in a short period of time there were more cards than people, meaning that too many cards have been issued. A new (and broader) Citizen Card was introduced in 2008, gathering all the individual's information (identity, tax, social security and health) in a single card. The role of IT in health care is discussed further in section 4.1.4 *IT*.

Two of the main institutes under the jurisdiction of the Ministry of Health have specific areas devoted to research and development (R&D). In 2004, INFARMED formed an R&D office, in an attempt to build up a connection between industry, university and the Institute itself. The government regards R&D in the national pharmaceutical industry as an important sector for the Portuguese economy. Bial, a pharmaceutical manufacturer that plays a key role in the industry, introduced its first patented product into the market in 2009, at the end of a 15-year research effort. The office also aims to establish international partnerships in the R&D field. The INSA has several R&D centres and laboratories. Their focus is on infectious and genetic diseases, nutrition and food safety, chronic diseases, environment and health determinants. Traditionally, health research financing has been carried out by the Ministry of Health and through the Portuguese Science Foundation (*Fundação para a Ciência e a Tecnologia*).

2.6.2 HTA

Portugal does not have a tradition of HTA, with the exception of pharmaceutical products as detailed below. As noted above, since 1988 the Ministry of Health has authorized the procurement and installation of expensive medical technologies in the public and private sectors. In 1995, new legislation lifted the restrictions on computerized (axial) tomography (CT) and magnetic resonance imaging (MRI) scanners. There are currently no effective methods for regulating the distribution of health equipment in the private sector. Most expensive medical equipment (67%) is located in the private sector, which is more flexible and innovative and therefore outstrips the public sector in the acquisition of high-technology equipment. Hospitals contract with private clinics for the use of equipment, providing a strong incentive for this provision pattern to continue.

INFARMED is responsible for regulating HTA for pharmaceuticals and medical devices. It does so according to specific published guidelines on new pharmaceuticals' economic evaluation (INFARMED, 1998), and according to the Law-Decree no. 145/2009 for what concerns medical devices. This document establishes rules about R&D, manufacturing, sales, entry, surveillance and advertising. Currently, there is no economic evaluation applied to medical devices.

The latest guidelines on pharmaceutical evaluation were brought out in 1998 (the economic evaluation guidelines were made public in December 1998, and were published in *Despacho* no. 19064/99 of 9 September 1999). Economic evaluation of pharmaceuticals was initially only mandatory for ambulatory care, even though occasionally other drugs were also the subjects of an HTA. Since 2006 economic evaluation has also become mandatory for drugs used or prescribed in hospitals. INFARMED is extending its responsibility from ambulatory to hospital care. See section 5.6 for more information on HTA for pharmaceuticals.

2.7 Regulation

The Portuguese Constitution stipulates that the economic and social organization of the country must be guided, coordinated and disciplined by a national plan. The national plan must ensure, for example, the harmonious development of the different sectors and regions, the efficient use of productive resources, and the equitable allocation of resources among the population and between regions.

As the NHS does not have its own central independent administration, the Ministry of Health carries out most of the planning, regulation and management functions. The main aspects of the NHS are centralized in the ACSS. There are central, regional and sector planning bodies. Central planning for health is mainly carried out by the DGH, based on plans submitted by the RHA boards. The High Commissioner for Health (GPEARI) has authority over the RHAs. Consequently, a general framework within the National Health Plan has been created to avoid regions pursuing national policies at their own pace, as has happened in the past.

A formal national health strategy and health care policy with quantified objectives and targets were defined for the first time in 1998, for the period 1998–2002. A revised version of this policy document was produced in 1999 involving a broader range of social partners and stakeholders. It was made public by the Ministry of Health under the title *Health: a commitment*. In fact, this structuring tool was a true commitment of the administration to the citizens. In 2002, the GPEARI produced a national report on health gains revising the achievements and pitfalls of the strategy for the period 1998–2002 (DGH, 2002).

A new National Health Plan has been designed and implemented throughout the country since 2004 (DGH, 2004). The National Health Plan 2004–2010 is in its final stage; a thorough evaluation is under way, coordinated by the GPEARI. It comprised strategic guidelines and objectives with relation to a minimum set of health system activities to be put into effect by the Ministry of Health. In 2004, the Plan set three main strategic goals:

- to improve health status at every stage of the life-cycle, reducing the burden of disease;
- to ensure that citizens are at the centre of the changes to be implemented, reorganizing health care provision; and
- to ensure that the Plan has sufficient human and physical resources for it to be implemented, as well as defining appropriate assessment and auditing mechanisms.

The DGH has been responsible for the Plan's design and execution (see section 2.3 and section 5.1).

With respect to regulatory management mechanisms, the Portuguese system might be viewed as highly normative, with extensive legislative provisions. There are, for example, numerous and sometimes very restrictive controls over

pharmaceutical goods, high-technology equipment, and the education, training and registration of health personnel (see section 4.2.3 *Training of health care personnel*). The defined rules and procedures, however, are not always adhered to or enforced, leading to what might be called a "management regulation deficit" of the statutory health system. Recognition that entrepreneurial initiatives require adequate measures to control what may otherwise be decisions made purely in the interests of the managers, rather than in the interests of the Ministry, is making the issue of management regulation a matter for discussion.

INFARMED, established in 1993, was reorganized in 1999 to meet the new and reinforced EU regulations in the area of pharmaceuticals. It is responsible for the regulation of pharmaceuticals and medical equipment, and supported by the Pharmaceutical Inspection Service, the Pharmacosurveillance Service and the Official Laboratory for Pharmaceutical Quality Control. A full description of their respective functions is given in section 5.6.

The Court of Auditors, an independent body that conducts periodic external auditing of NHS performance, has in recent years produced some critical reports. These reports have looked at the overall public health expenditure as well as giving a comparison across three hospitals. Since the year 2000, a few major auditing reports have been drawn up. In 2003, the financial status of the NHS was audited (Court of Auditors, 2003). By 2005, it was the turn of the Internal Control System of the NHS to be examined (Court of Auditors, 2005). A 2006 report (Court of Auditors, 2006) evaluated the management scheme of the *Sector empresarial do Estado* (state-owned companies), with relation to the period 2001–2004. In 2007, the Regional Health Service of the Madeira Archipelago was audited (Court of Auditors, 2007). These analyses have highlighted major organizational and financial problems and have made recommendations.

The HRA was created in 2003 to regulate and supervise health care providers' activity. Its aims were to guarantee enough competition between providers and to protect the citizens' rights to universal health care coverage. Its competences included the regulation and supervision of all activity and health care delivery of all providers, with respect to access, quality and safety, as well as patients' rights. In 2009, the organizational structure of the HRA was reformed. The main changes included the nomination of an Advisory Board; the redefinition of the attributes of the HRA, which now include economic regulation; and a more precise definition of the sanctions to be applied by the HRA.

A recent example of the HRA's work is the study conducted on emergency room health care provision. The report concludes that most of the private provision of emergency health care is not suitable to patients needs; moreover,

many of these departments do not conform to basic legal requirements (ERS, 2010). In 2009, the HRA received more complaints from consumers than in the previous year. This is possibly due to the online system that is now available on the official web site. Other reports include studies on the licensing of providers (ERS, 2007) and on the conventions regime of the NHS (see section 2.7.1 *Regulation and governance of third-party payers*).

2.7.1 Regulation and governance of third-party payers

RHAs play an essential role in the contracting of health care providers to work with the NHS. They are responsible for setting up (and paying for) conventions ('conventions' refers to the contracting of private sector providers to provide NHS patients with specific health care services) and *contratos programa* (contracts) with the hospitals (based on cost history, utilization and complexity variables; see section 3.7.1 *Paying for health services*). RHAs are also in charge of negotiating and signing public–private partnership contracts. These follow the procedure used in the contract that established the first public hospital under private management, signed between the private operators and an RHA.

The HRA conducted an assessment of the conventions contracted by the NHS (through RHAs). This is a way of making use of the HRA's powers. These conventions are responsible for almost 10% of the total costs of the NHS, which makes it a key issue with respect to cost-containment. The law regulating conventions was changed in 1998. The law specifies that there should be a known set of general contractual clauses (following an approach known as "any willing provider") for each type of convention. These changes have not entered into force; such general contractual clauses have only been drawn up for surgery, dialysis and a system for the management of (waiting list) patients waiting for surgery (SIGIC, *Sistema de Gestão dos Utentes Inscritos para Cirurgia*). This raises several problems, such as lack of competition, market foreclosure, higher costs and prices, and lower service quality for patients.

Health subsystems manage the provision of their own contracted health care providers among NHS and private sector services. The opting-out option can be put into effect by an agreement between the subsystem and the RHA.

Several insurance companies provide VHI. Médis and Multicare are the companies with the largest market shares (see section 3.5 for further information). Private insurers are free to choose their providers. In fact, providers have to apply in order to be accepted as an "official provider" of a specific system. The way they work is different from both NHS and health subsystems health care provision. There are quite a few rules to conform to in order to be accepted as

a client of the insurer. Insurance companies are under the jurisdiction of the Portuguese Insurance Institute, the Portuguese Competition Authority and the HRA, but are not directly under the Ministry of Health supervision.

2.7.2 Regulation and governance of providers

All hospitals belonging to the NHS are in the public sector, under the Ministry of Health jurisdiction, as described in section 3.7.1 *Paying for health services*. Private sector hospitals, both non-profit-making and profit-making, have their own management arrangements.

Since 2003, the majority of NHS hospitals have been given status similar to those of a public-interest company (in what may be termed "autonomous public hospitals", whereby the government retains ultimate ownership but gives some autonomy to hospital management – "*Hospitais EPE*"). This represents an attempt to introduce a more corporate structure into hospital management, with the expected effects on efficiency and cost-containment. The hospitals not yet transformed are now under pressure to provide better services to their patients, as their performance can be compared to that of the hospitals that have already been converted.

All hospitals are financed through contracts (*contratos programa*), but "*Hospitais EPE*" have many decision-making powers with relation to capital, staff and negotiation of input prices, which are not present in the traditional NHS-run hospitals. Among the new management rules, "*Hospitais EPE*" may hire staff under individual labour contracts (instead of collective agreements) and may set the performance-related payment schedules of professionals. The use of incentive schemes is seen as a way to counteract the existing rule of "equal pay/least possible effort". This change generated competitive pressures in the labour market, more precisely in the demand for physicians in the most sought-after specialties, leading to wage escalation. Several hospitals are also getting together to block-purchase pharmaceutical products and other clinical consumables, taking advantage of the bargaining power resulting from larger acquisition volumes.

In 2007, the HRA published recommendations based on a study about the licensing of private health care providers (ERS, 2007). Many licensing laws exist, one for each kind of practice. For example, rehabilitation and physical medicine have completely separate licensing arrangements from clinical pathological laboratories. Since it was found that the present group of laws concerning the licensing of private hospitals and health care facilities is very broad and enables the coexistence of licensed and unlicensed health care

providers, it was recommended this issue be subject to a legislative review that should specify the general rules for all facilities of this kind and define the technical specifications for each specialty.

With relation to the organization of services, there is usually a strict gatekeeping process performed by primary care physicians. Access to laboratory tests and screening tests (MRI, CT scans, etc.) is limited if it falls outside of routine procedures.

The main responsibility for regulation of policy objectives and national quality standards lies at the central level with the DGH. Under this body, a functionally separate institute for quality was created in 1999. Its scope covered the development of policies, strategies and procedures that support professionals and provider organizations in the continuous improvement of quality for the delivery of health care. It also promoted methods of health institution certification and the continuous education of professionals. Progress in this area has been achieved with the MoniQuor organizational quality model applied to primary care centres and use of the King's Fund Certification Process (a partnership of the Institute for Quality (IQS, *Instituto da Qualidade em Saúde*) and the King's Fund in London, United Kingdom), now under way in more than one-third of NHS hospitals.[1]

The MoniQuor model, which aims to monitor the quality of organization at the primary care centre level, was put into action in 1998, but has evolved into a cross-analysis process: each primary care centre supervises another one, and is supervised by a third one. The IQS was integrated into the DGH after the restructuring of the Ministry of Health associated with the general reform in civil service organization.

The HRA plays an important role in the assessment of quality of care. It is able to monitor and audit quality of providers, and adherence to legislation.

In 2009, the Ministry published the National Strategy for Quality in Health, an initiative in line with the objectives of the National Health Plan 2004–2010, with a five-year timeline. The strategy defines seven priorities:

- organizational and clinical practice quality
- information to the patient

[1] The Health Quality Service is a health accreditation service in the United Kingdom and the rest of Europe. It works together with international health care organizations to improve the quality of patient care through consultancy services and the development of health care standards and assessment processes. See http://www.chks.co.uk/index.php?primarycare for details on the accreditation in primary care, as an example of its activity.

- patients' safety
- quality and accreditation of health care providers
- disease management and innovation
- international patient mobility management
- evaluation and follow-up of patients' complaints and suggestions.

The DGH also created a voluntary National Accreditation Programme for Quality in Health.

Medical negligence is overseen by the Medical Association (see section 2.8.4 *Complaints procedures*).

2.7.3 Registration/licensing and planning of health care personnel

Most NHS staff are civil servants and all new posts have to be approved by the Ministry of Finance. An increasing number of workers are under individual contracts, which do not confer upon them the same rights as those workers with civil servant status. In addition, it is clear that rules for civil servants are becoming closer to those of private labour relations. A *numerus clausus* was introduced in 1977, limiting the number of places available in medical schools in response to the excess of doctors created after the revolution in 1974. These restrictions on medical education and other health professional careers, namely nursing, have made it necessary to recruit professionals from other countries. However, this has been reversed in recent years both with the creation of new medical schools and large increases in the existing school intakes.

The striking lack of nursing personnel, the scarcity of doctors in some regions and specialties (e.g. GPs), and the imbalance in numbers of primary care clinicians versus hospital specialists are some of the visible signs of the weakness of public health policy in the field of human resources. Moreover, the retirement in the near future of many physicians will create a shortage, as the *numerus clausus* policy applied in the past did not ensure a sufficient intake to replace them.

A Resolution of the Council of Ministers in December 1998 pointed out some solutions to this human resource problem:

- the founding of health sciences departments in existing universities;
- the creation of new graduate programmes in medicine in the northern region of the country;

- the improvement of existing conditions for current graduates in medicine and dentistry;
- the reorganization of the nursing and technological public schools network;
- a gradual increase in the number of student admissions; and
- the creation of various partnerships between the Ministry of Health and the Ministry of Science and Graduate Education.

As part of this process, two more universities (Universidade do Minho and Universidade da Beira Interior) started to offer degrees in medicine in 2001, increasing the number of medical doctors trained. There is also a new medical school within the Universidade do Algarve (since 2008) and the Universidade de Aveiro Medical School was established in 2010. Simultaneously, several private schools have started to offer degrees in nursing and paramedic training.

A strategic plan for health personnel education and training was another relevant output of the 1998 Resolution. A working document was presented in December 2001, with a detailed needs assessment considering the average European staffing levels. In general terms, the document drew attention to regional asymmetries in the distribution of doctors (the absolute numbers are within the European averages, however) and the need to increase the number permitted by the *numerus clausus*. The chronic understaffing of nurses in primary and long-term care is also addressed, setting the European average as the target for NHS nurse staffing by 2010.

In 2010, the Ministry of Health gave incentives for recently retired physicians to come back to the NHS to overcome the shortage in physician supply. Although in the current situation the main problem is more associated with distribution (geographic and by specialty) and productivity than with supply, absolute numbers will become an issue in the future if current trends of retirement prevail.

Although there is a shortage of GPs (and physicians in general), there are strict limitations in terms of internship places, which depend on the reported capacity of national health care facilities (NHS primary care centres and hospitals). In fact, from 2004 to 2008 there was an increase in the number of physicians working for the Portuguese NHS (4.2%). The NHS has been recruiting health professionals from abroad, mainly from Spain, although a specific census to analyse this has not been conducted. Despite the existence of an active constraint on the number of training places, during that same period there was an increase of 49% in intern admissions and an increase of 42% in

the number of interns in training programmes for GPs and family medicine, which shows the effort that is being made to address the limitations in primary care. From a global point of view, intern admissions increased by 111% and the actual number of interns in training increased by 57%. It is widely recognized that a shortage of GPs exists and that this situation is likely to worsen in the future, as current GPs start to enter retirement. Recent decisions of the Ministry of Health regarding training vacancies indicate a willingness to deal with this issue. Section 4.2.3 describes the training of health care personnel.

The Law-Decree no. 279/2009 establishes the new juridical regime of private health care units. The new model aims to guarantee high quality standards in private health care delivery, as well as to simplify the process of licensing new units. The HRA is responsible for ensuring that providers follow all the regulations and procedures regarding quality certification.

2.7.4 Regulation and governance of pharmaceutical care

A series of changes in recent years have modified, and in many cases, relaxed, the regulation of pharmaceuticals in Portugal. These are described in more detail in section 5.6, but can be summarized as follows: the ownership of pharmacies is no longer restricted to pharmacists (since 2007); the price of OTC medications is no longer fixed and they can be sold outside pharmacies (since 2005); and retail pharmacies can operate in hospitals (since 2006). Since 2007 there has been no change to the strong regulation of pharmacy locations and the maximum number of pharmacists that are permitted in each community (*Portaria* 1430/2007). Administrative prices of pharmaceutical products are now maximum prices, with pharmacies being able to provide discounts on prices to patients.

Since 1990, several legislative changes have resulted from the implementation of European Commission Directives, such as that to guarantee the quality and safety of pharmaceuticals. In addition, public information and education programmes on the rational use of pharmaceuticals were developed and cost-containment policies were adopted. INFARMED was established in 1993. Since 1994, its remit has been widened to cover not only pharmaceuticals but also medical equipment and other medical products. INFARMED is responsible for approving all pharmaceuticals to be reimbursed by the NHS and for suggesting co-payment levels to the Secretary of State. It has introduced some cost–effectiveness measures into the pharmaceutical assessment procedures, and it can request cost–effectiveness studies to justify the reimbursement of new pharmaceuticals. In 1999, the government issued official guidelines about

how best to carry out cost–effectiveness studies. This initiative decisively increased the utilization of efficiency criteria in reimbursement decisions concerning pharmaceuticals.

The guarantee system for the quality and safety of pharmaceuticals is a complex one and is not limited to the industrial process. Owing to the unique features of the pharmaceutical market, decisions are not made under normal market conditions. Pharmaceutical production is controlled by a strong system of regulation. INFARMED's responsibilities include:

- to contribute to the national health policy, namely in the definition and use of pharmaceuticals, medical devices and cosmetics;
- to regulate, evaluate, authorize, discipline, audit and verify as the National Reference Laboratory, and to ensure the surveillance and control of R&D, production, distribution, sales and consumption of pharmaceuticals, devices and cosmetics;
- to ensure the fulfilment of the regulations on clinical trials on pharmaceuticals, as well as good clinical practice;
- to guarantee the quality, efficacy and cost–effectiveness of pharmaceuticals, devices and cosmetics;
- to screen consumption and use of pharmaceuticals; and
- to ensure the adequate integration and participation in the Network of Pharmaceuticals, Devices and Cosmetics Authorities in the EU and in the official Quality Laboratories network.

In recent years there have been a number of regulatory reforms directed towards improving the cost-effective consumption of pharmaceuticals (these are described in detail in section 5.6). To promote the use of generic drugs, the price of generic drugs was lowered and pharmacists were permitted to substitute generic equivalents for brand name drugs. Reference pricing for pharmaceutical reimbursement was also introduced in 2003. Moreover, as of March 2007, the government enacted new rulings related to the way prices of new pharmaceutical products are determined and established maximum (not fixed) prices.

2.7.5 Regulation and governance of medical devices

Medical devices are regulated by Law-Decree no. 145/2009, which determines that the INFARMED is the entity responsible for the surveillance of all medical devices. The document adopts the EU Directive no. 2007/47/CE to Portuguese legislation.

2.7.6 Regulation of capital investment

Capital investments in health are determined at the central level by the Ministry of Health, namely by the ACSS. The geographical distribution of health care facilities is often a point of contention, although it is unclear to the external observer how considerations of an equitable geographical distribution are balanced with the demands from local representatives of the population. One of the mechanisms that the government has used to improve NHS capacity and value for money has been through an increased use of private entities to build, maintain and operate health facilities, under the so-called PPPs. More information on capital investments, along with details on the use of PPPs for investment, can be found in section 4.1.2. *Capital stock and investments*.

2.8 Patient empowerment

Patient empowerment is one of the five main issues of the Ottawa Charter for Health Promotion (WHO, 1986). The Ottawa Charter was the outcome of an international conference held in 1986, which focused on "the move towards a new public health" and the main pathways to achieve this.

The National Health Plan has (also) focused on empowerment, adopting the viewpoint of personal skills development. This section focuses on information for patients, patient choice, patient rights, patient safety and compensation, complaints procedures, and patient participation and satisfaction.

2.8.1 Patient information

Information and knowledge are by now key components of the decision-making process. A well-informed citizen is able to make better choices when dealing with health care services provision. The "information cycle" begins with the individual, who produces some data to be taken into the system, which in turn returns an answer, suitable to the individual's needs. S/he is then able to make the optimal choice of health care services utilization, saving both time and resources for him or her and the system. The Internet and call centres are the most common resources used to fulfil this aim.

All Ministry of Health institutions have their own web site, with areas designed specifically to inform patients. These sites include information on available services and reports on quality of care. Internet coverage of the population is quite extensive, particularly in the coastal areas, which enables

citizens to keep in touch with the latest news and information. Portal da Saúde (Health Portal, 2011a) is one of the best examples of the link between the Ministry of Health and citizens (see section 4.1.4 *IT*).

Another feature of the IT system is the NHS call centre *Saúde 24*, one of the few PPPs agreed by the Ministry of Health. It started operating on 25 April 2007.

2.8.2 Patient choice

Patients in the NHS must register with a GP and can choose only among the available providers within a geographical area based on their residence. Secondary care is subject to a gatekeeping process, with strict rules for referral both in outpatient appointments and emergency room episodes. Choice of provider is greater for those covered by a health subsystem or VHI.

The concept of health citizenship is not particularly widespread in Portugal. The state tends to be regarded as responsible for population health status and health care delivery, which reduces responsibility in relation to patients' choice. While legal documents do refer to the possibility of patients having choices in health care, the mechanisms needed for citizens to acknowledge their possibilities are not developed. The first attempt was made in 2008, with the "dental voucher" specifically designed for dental care, where the public sector is residual. Pregnant women have access to three "dental vouchers", which give them the right to schedule a dentist appointment. The elderly are entitled to two of these vouchers per year. They were the first groups to benefit from this measure, and since then it has been expanded to children with DMFT in permanent teeth, when referred by their primary care physician.

2.8.3 Patient rights

A Patient's Charter (*Carta dos Direitos e Deveres dos Doentes*) from 1997 provides for the official protection of patients in the NHS. The Charter brings together the main legal aspects concerning patients' rights and obligations. The focus on the patient is the distinctive feature of this Charter, which highlights:

- the right of the patient to respect for their human dignity, as well as for their cultural, philosophical and religious beliefs;
- the right of the patient to be informed of her/his health status and to a second opinion;
- the right of the patient to accept or refuse any procedure, either for treatment, research or teaching purposes;

- the right of the patient to the privacy of her/his own records, and access to the clinical data regarding her/his treatment and clinical history;
- the patient's responsibility to look after her/his own health status, and to provide all necessary information to health care personnel in order to be provided with the most appropriate treatment;
- the patient's obligation to follow all the health care delivery system's rules; and
- the patient's duty to actively avoid any unnecessary expense under the NHS.

There have not been any studies assessing the effectiveness of the implementation or impact of the Charter. (For a more official summary of patient rights and duties, see Ministry of Health & Ministry of Labour and Social Solidarity, 2005.) The latest publication of the *Charter of the patient's right to access NHS health care* was in 2007, and there is a new document being drafted. This Charter defines the maximum waiting times for access to health care; it is updated annually and published on the Ministry of Health's web site and at all NHS facilities. However, these documents have not had a significant practical relevance until now.

2.8.4 Complaints procedures

There are formal mechanisms for patients to make complaints. In every public medical institution there is an office where patients can complain about any aspect of the NHS (called the Users' Office). All complaints are dealt with through the Users' Office and in case of medical negligence, may be referred to the Medical Association and to the Portuguese judicial system. However, patients are free to write directly to the regional coordinators or to the Minister of Health, or to pursue their case through the courts. This is, of course, expensive and few people do so. The majority of the complaints relate to organizational issues such as waiting times or service amenities rather than technical matters regarding specific treatments or interventions. It is often the case that the Ministry of Health investigates citizens' complaints and high-profile reports by the media. It is also the case that, as some services improve and become more responsive to patients' needs, complaints increase because the effectiveness of a complaint is seen as having increased.

The Medical Association is responsible for medical negligence procedures, as far as its own status and disciplinary regulations are concerned (criminal action is not under its jurisdiction). Regional disciplinary councils are in charge of the analysis of infractions by physicians. Punishment ranges from a suspension to

expulsion from the profession. There has been no mention of possible changes to the current system. Moreover, there are no figures available on the number of complaints or punitive measures.

2.8.5 Public participation

Various initiatives are being undertaken to encourage citizens' participation in health, to increase patients' trust in the health system, to encourage the population to take responsibility for their own health and to obtain better quality and more appropriate care for users of the health system. Examples of programmes that have been developed and widely publicized are malignant neoplasm screening centres, blood and bone marrow donation campaigns and a national campaign to promote surveillance of heart conditions. (See the web site of the DGH, listed in section 9.4, for further information.)

Until recently, public participation was largely confined to the legislative framework and to intentions announced in official documents. It only occurred, to a limited extent, in hospitals' consultation bodies and through representatives of municipalities. The voice of patients was essentially only heard through lobbying by patients' associations. With the advent of social media, patients' participation has the potential to be much more interactive. The Ministry of Health has developed several means of communication with citizens and patients using micro web sites, Twitter and Facebook accounts, connected to patients' associations.

Nonetheless, the recent study by Cabral and Silva (2009) indicates that the population is becoming more active in maintaining their health, which is reflected in both the higher number of routine outpatient appointments and the increased compliance with preventive actions prescribed by the family doctor.

There is some information available regarding patient satisfaction with the health system. Under the *Saúde XXI* programme, a research team conducted a survey on patient satisfaction with primary care health services, within the framework of EUROPEP (an internationally standardized instrument to evaluate general/family practice). One conclusion is that the Portuguese people are quite happy with primary care services provision. Over 70% of the respondents were very satisfied with their physician and their involvement in the decision-making process regarding their own health. Over 63% appreciated the medical examination carried out by the GP, as well as the attention they received. However, some issues arise about the organization of services, as more than 55% of the respondents identified excessive waiting times and difficulty communicating with the GP. Overall, however, communication and relationship

with the doctor during the visit tends to be rated more highly than accessibility (i.e. being able to make an appointment). (See Ferreira, Raposo & Godinho, 2005, for more information.)

The most recent study on patients' satisfaction, by Cabral and Silva (2009), concluded that patients' satisfaction with primary and acute care increased during the last decade, except for waiting times. Surgical waiting times should be a priority for policy-makers, according to this survey. The subjective evaluation of the health care system also improved, measured by mothers' satisfaction with the health care provided to their children. Satisfaction varies across the country, with more reported problems with the provision of health care in the Lisbon region than the rest of the country.

2.8.6 Patients and cross-border care

Patients are only entitled to payment by the NHS for care provided outside of Portugal with medical approval obtained in advance from an NHS doctor. Citizens' rights related to cross-border health care are no different from those prevailing in the EU. Recently, the Ministry of Health increased cooperation with Spain, allowing childbirth by Spanish residents living close to the border to be covered by the Portuguese NHS.

EU regulations state that all EU citizens have the right to be treated abroad in other EU countries for unforeseen cases. Health authorities in all EU countries can issue European Health Insurance Cards that are free to their citizens (usually a matter for social security offices). This seems to work well in practice.

Planned care is another matter. A patient needs to go through a very complicated and lengthy process to obtain an authorization form, an E112. The GP and then hospital specialists have to certify in a report that the necessary treatment cannot be found within the country. The report is then the subject of an evaluation by a technical committee from the DGH. Finally, it is also necessary to have a positive decision from the Director. If the decision is positive, the hospital where the clinical staff co-sponsored the report has to pay for the costs incurred during the treatment, the stay of patient and any accompanying health care personnel, transportation and so on. (DGH, 2005). It is easy to see that this situation is extremely rare, as the barriers are almost insurmountable. (For the position of the Portuguese government on cross-border health care, see Ministry of Health, 2007c.)

3. Financing

This chapter considers how much is spent on health and the distribution of health spending across different service areas. It describes the different sources of revenue for health, focusing on how revenue is collected, pooled, allocated within the health system and used to purchase health services and pay providers. It also describes health coverage, for example, who is covered by the statutory system, which services are covered by the statutory benefits package, the extent of user charges and other OOP payments, and the role played by VHI.

Like most European systems, the Portuguese health care system draws on a mix of public and private financing. The NHS, which provides universal coverage, is predominantly financed through general taxation. The health subsystems, which provide either comprehensive or partial health care coverage to between a fifth and a quarter of the population, are financed mainly through employee and employer contributions (including state contributions as an employer). Private VHI covers between 10% and 20% of the population. Health care spending constituted almost 10% of the country's GDP in 2008. In recent years there has been a rapid rate of increase in public health expenditure, which relates in part to the country's political reluctance to impose cost-control measures. A large proportion of financing, about 30% of total expenditure, is private, mainly in the form of OOP payments (both co-payments and direct payments by the patient), and to a lesser extent in the form of premiums to private insurance schemes and mutual institutions.

The Ministry of Health receives a global budget for the NHS from the Ministry of Finance, which is then allocated to the many institutions within the NHS. Public hospitals are funded through global budgets, but with an increasing role for DRGs; private insurers and health subsystems pay hospitals

retrospectively based on DRGs. The Ministry of Health allocates funds to the health regions on the basis of a combination of historical expenditure and capitation; these funds pay for primary care and special programmes.

3.1 Health expenditure

Table 3.1 shows the percentage of total health expenditure financed through public and private sources. Public expenditure, which comes mainly from taxation (over 90%), includes funding of direct care provision within the NHS and subsidies to the health subsystems for public sector employees. Private expenditure mainly includes OOP payments and VHI. (See Fig. 3.1 for a broad picture of the financial flows.)

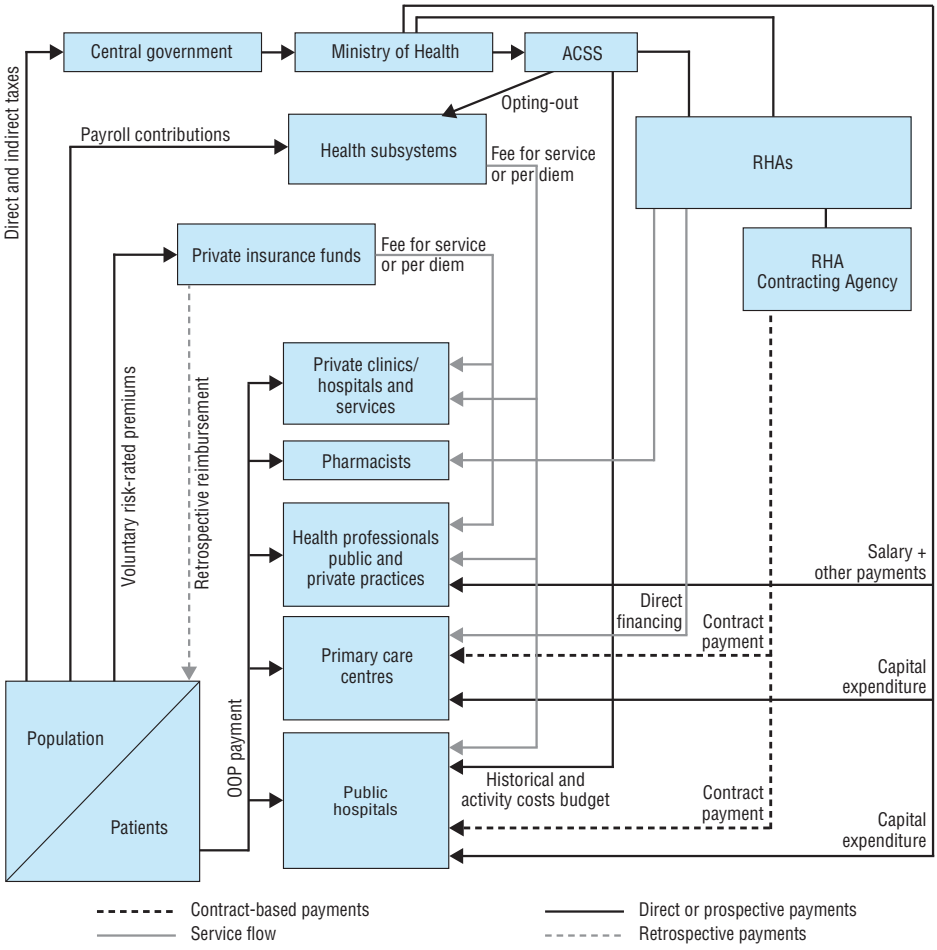
Table 3.1
Trends in health expenditure, 2000 to latest available year

	2000	2005	2006	2007	2008
Total health expenditure in € per capita	1 012.0	1 367.4	1 394.6	1 440.5	–
Total health expenditure as % of GDP	8.5	9.7	9.5	9.4	–
Public expenditure on health as % of total health expenditure	72.9	71.4	71.2	69.8	–
Private expenditure on health as % of total health expenditure	27.1	28.6	28.8	30.2	–
Mean annual real growth rate in GDP (base: 2000)	3.95	0.94	1.40	1.87	–0.02
Total government spending as % of GDP	41.9	45.1	46.3	45.8	46.1
Government health spending as % of total government spending	12.7	10.5	9.95	6.87	7.06
Government health spending as % of GDP	4.3	6.3	5.9	5.5	5.5
OOP payments as % of total health expenditure	23.2	23.9	23.1	–	–

Sources: INE, 2010; Ministry of Finance & Ministry of Internal Affairs, 2000–2008.
Note: Data are also available at http://www.pordata.pt/.

OOP payments in Portugal are estimated to be among the highest in Europe. They accounted for approximately 23.1% of total health expenditure in 2006 and have been slightly above 23% since 2000 (see section 3.4). Following the conclusions of international studies (see Wagstaff et al., 1999), one may state that, overall, the theoretically progressive redistributive income tax system in Portugal turns out to be slightly regressive in health care financing due to a high share of OOP payments along with a heavy reliance on indirect taxes. Indirect taxes on goods and services account for 26.8% of total government revenue in 2008. The existence of a generous (by international standards) system of tax benefits to private health spending adds to this regressivity of health care funding. In other words, health expenditure falls relatively more heavily on low-income

Fig. 3.1
Financial flows

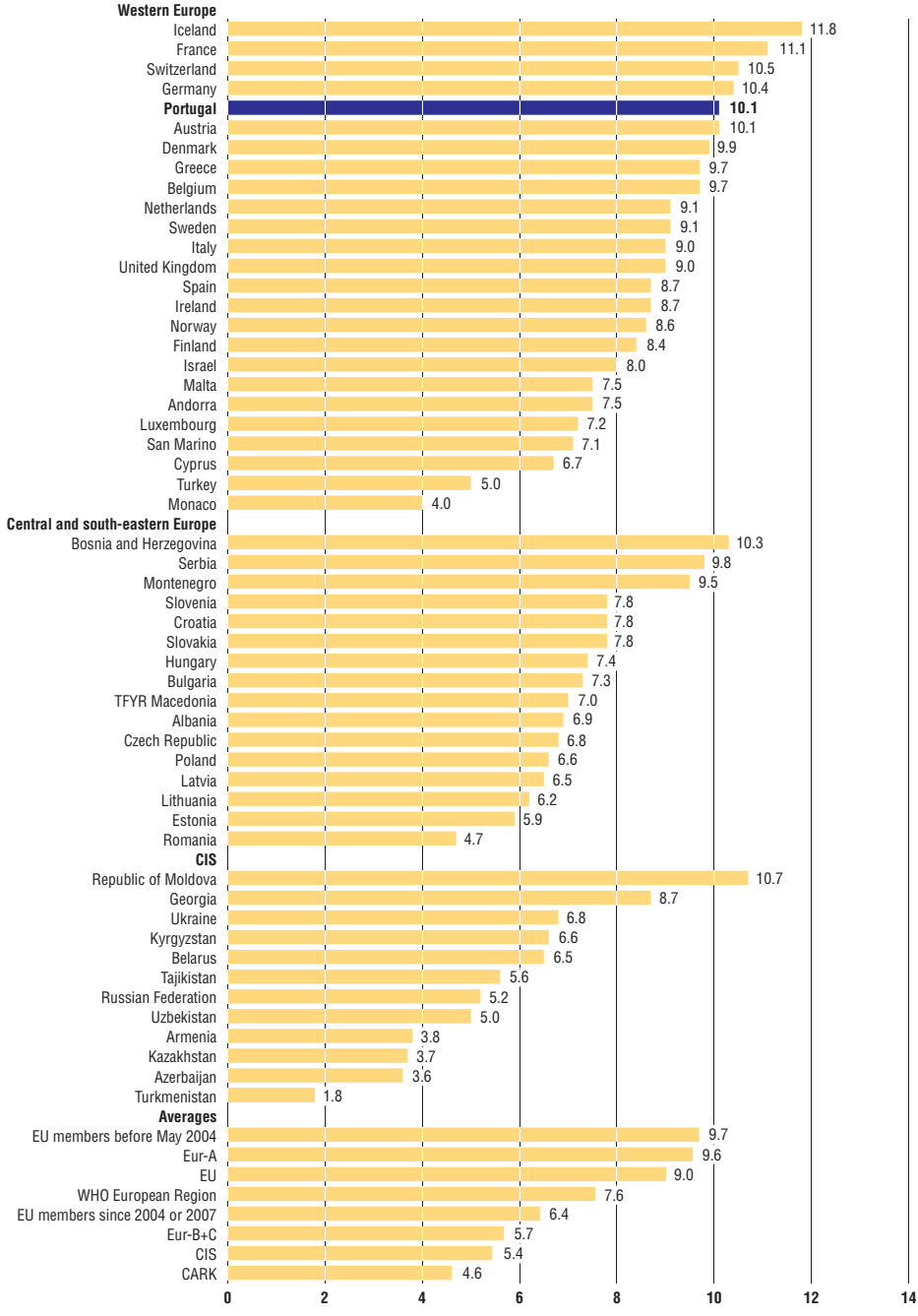


households. These contributors are less able to obtain a higher percentage refund from the tax system than the high-income households (6% versus 27%, when analysing the lower and upper groups of the income distribution).

Data presented here originate from the recently published National Health Accounts (INE, 2010), constructed in accordance with WHO/OECD principles and from the WHO Health for All Database (WHO Regional Office for Europe, 2010). Total health care expenditure in Portugal has risen steadily from as little as 3% in 1970 to almost 10% of GDP in 2005. In 2008, health spending made up 10% of GDP in Portugal, above the EU27 average of 9% (see Fig. 3.2). Portugal now spends more than both Italy and Spain in terms of proportion of

Fig. 3.2

Health expenditure as a share (%) of GDP in the WHO European Region, 2008

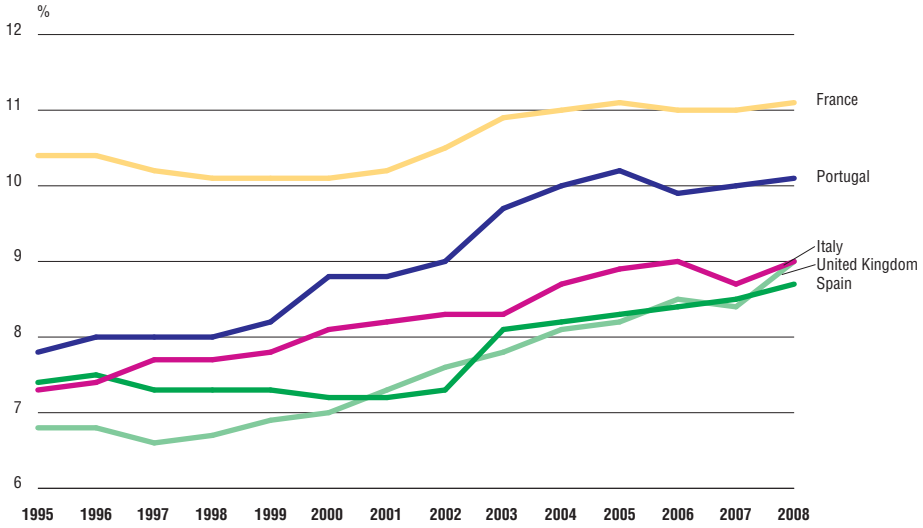


Source: WHO Regional Office for Europe, 2011.
Notes: CIS: Commonwealth of Independent States; CARK: Central Asian republics and Kazakhstan.

GDP (Fig. 3.3), despite having spent considerably less than they did in 1970. Portugal spends above US$ 2000 per capita, which is slightly below the EU27 average (Fig. 3.4), despite spending almost the highest amount on health care as a proportion of GDP.

Fig. 3.3

Trends in health expenditure as a share (%) of GDP in Portugal and selected countries, 1995–2008

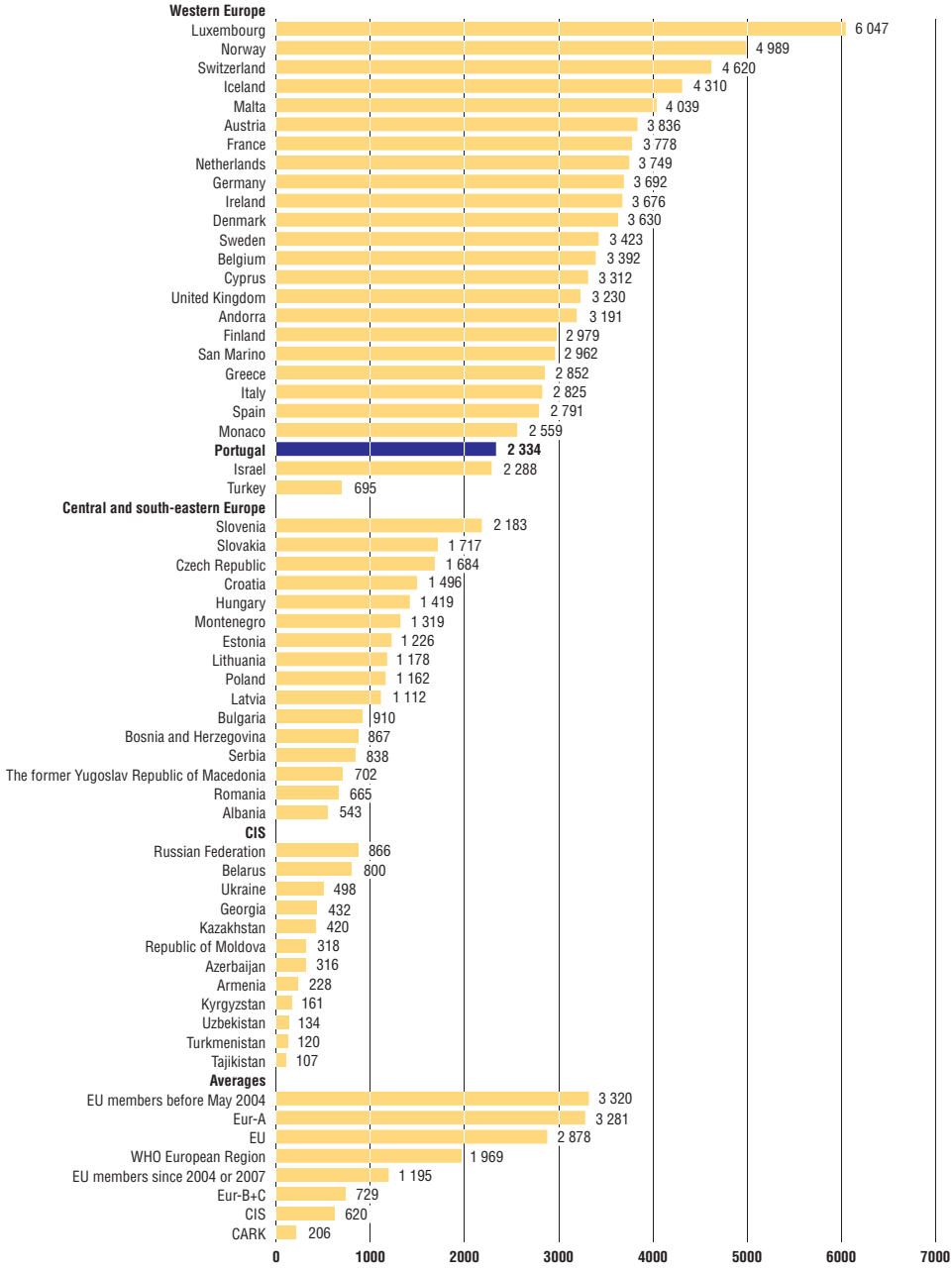


Source: WHO Regional Office for Europe, 2011.

As shown in Table 3.1 (p. 52), the amount spent on health care has increased in both absolute and relative terms. Growth rates of total health expenditure seem to be slowing down, as well as GDP rates, though they still show a steady and strong growth pattern, and the proportion of total health expenditure over GDP has also increased. The growth in total health expenditure was more pronounced in public health expenditure, which steadily increased its share of expenses. Despite the increase, public sources of spending as a proportion of total health expenditure are the lowest among the EU27 countries (Fig. 3.5). It appears that Portugal has not contained health expenditure growth as successfully as other southern European countries. One plausible explanation lies in the country's political reluctance to impose cost-control measures after it was assumed that investment was needed in order to build up new facilities and to promote the expansion of NHS coverage (Dixon & Mossialos, 2000).

Fig. 3.4

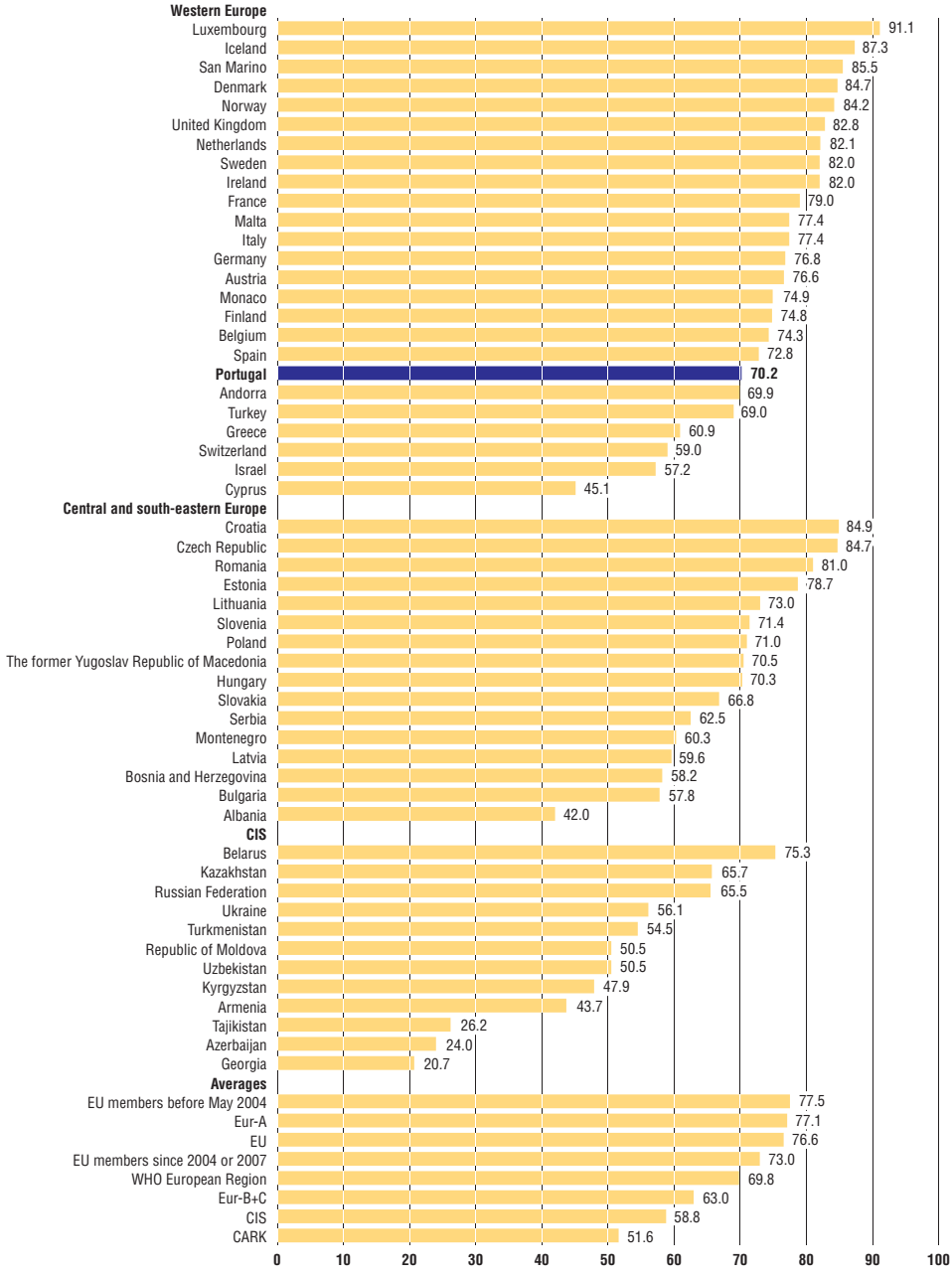
Health expenditure in US$ PPP per capita in the WHO European Region, 2008



Source: WHO Regional Office for Europe, 2011.
Notes: PPP: Purchasing power parity; CIS: Commonwealth of Independent States; CARK: Central Asian republics and Kazakhstan.

Fig. 3.5

Public sector health expenditure as a share (%) of total health expenditure in the WHO European Region, 2008



Source: WHO Regional Office for Europe, 2011.
Notes: CIS: Commonwealth of Independent States; CARK: Central Asian republics and Kazakhstan.

Another factor that has likely been a contributor to the fast growth of public health expenditure was the previous recurrent government underfunding of the NHS. The initial budget for the NHS has often been below its expenditure at the end of the previous year by a substantial amount. The difference between these two values has undermined the credibility of budgets as a management tool and provided room for uncontrolled growth of spending through a build-up of debts to suppliers (most notably pharmaceutical companies and other clinical consumables producers), as it was clear that initial budget values had only a very small chance of being respected. To illustrate the relevance of this issue, it is worth pointing out that in the past 10 years (2000–2009), there were five government budget reinforcements or exceptional measures for debt regularization (in the years 2001, 2002, 2004 and 2005).

Data on health expenditure by health sector, for example, primary care, inpatient care and dental care, are not available. For more information on pharmaceutical expenditure, see section 5.6.

3.2 Sources of revenue and financial flows

The NHS is predominantly financed through general taxation. In addition to the NHS, which provides universal coverage for a comprehensive set of services, citizens can benefit from extra layers of insurance coverage. These extra layers have three main sources: public health subsystems, private health subsystems and private VHI (contracted through the employer or on an individual basis) (see section 3.5). The health subsystems, which provide either comprehensive or partial health care coverage to between one-fifth and a quarter of the population, are financed mainly through employee and employer contributions (including state contributions as an employer). Private VHI covers about 20% of the population. A summary of the financing flows in the Portuguese health system is depicted in Fig. 3.1 (p. 53).

Private health expenditure has witnessed some growth in recent years, though at a slower rate than public health expenditure. A large proportion of financing, about 30% of total expenditure, is private, mainly in the form of OOP payments (both co-payments and direct payments by the patient), and to a lesser extent in the form of premiums to private insurance schemes and mutual institutions. Table 3.2 reports on the main private sources of financing in the period 2000–2010, distinguishing between OOP payments, non-profit-making institutions serving families, VHI and other private sources.

Table 3.2
Funding mix for the health system (%), 2000–2008 (selected years)

	2000	2005	2006	2007	2008
Public funding	68.8	68.9	66.9	66.6	65.6
Private funding	31.2	31.1	33.1	33.4	34.4
of which					
Non-profit-making institutions serving families	0.5	0.4	0.4	0.3	0.3
VHI	11.3	14.2	14.4	14.0	15.0
OOP payments	86.4	84.1	83.9	83.9	83.4
Other private funding	1.8	1.4	1.3	1.3	1.4

Sources: INE, 2010; Ministry of Finance & Ministry of Internal Affairs (2000–2008).
Note: Data are also available at http://www.pordata.pt/.

3.3 Overview of the statutory financing system

3.3.1 Coverage

Coverage breadth: who is covered?
The NHS covers all residents in the country; it is universal, comprehensive and almost free at the point of use (in accordance with the Portuguese Constitution, Article 64). The universal and comprehensive nature of the NHS was defined at its creation in 1979, and has been retained since then. There are gaps in provision due to geographical imbalances, with some areas unable to provide certain specialist services, as hospitals in the interior region do not provide for all medical specialties. However, the high levels of investment in regional facilities outside Lisbon and Oporto in recent years will probably make these new well-equipped environments more attractive to doctors and other health professionals.

Coverage scope: what is covered?
The NHS predominantly provides direct acute hospital care, general practice, and mother and child care. Specialist and dental consultations, diagnostic services, renal dialysis and physiotherapy treatments are more commonly provided in the private sector (but with public funding to a considerable extent). Diagnostic services, renal dialysis and physiotherapy treatments are typically carried out under contractual arrangements with the NHS. Most dental care is paid for out of pocket, as are many specialist consultations in private ambulatory care. Theoretically, no services are explicitly excluded from NHS coverage. However, throughout Portugal, the NHS does not cover dental care, that is, it is neither provided nor funded by the NHS. According to the Health

Interview Surveys of 1998/1999 and 2005/2006, approximately 92% of dental consultations were in the private sector (Ministry of Health, 2000; INSA, 2007). Also, approximately 60% of specialist consultations take place in the private sector (e.g. cardiology). The role of private specialists has increased during the last decade (Cabral & Silva, 2009). This results from both NHS shortages (with long waiting times) and a tradition, from before the creation of the NHS, of direct access to physicians' private offices. Overall the coverage in the NHS is comprehensive in scope.

Coverage depth: how much of the benefit cost is covered?
As described in section 3.4.1 *Cost-sharing*, user charges are in place for most NHS services. The depth of coverage is lowest for pharmaceuticals. The other places where user charges are most visible to the population are the use of emergency services, and visits to GPs and specialists.

With regard to economic evaluation and consequent provision of coverage for pharmaceutical expenses, in Portugal, as in other countries, pharmaceutical products face an economic hurdle before they are included under NHS coverage. Each recent pharmaceutical available for sale in pharmacies is subject to an economic evaluation (guidelines for this were enacted in 1998). In 2006, the government extended the same guiding principles of economic evaluation to new pharmaceuticals introduced into hospital consumption (see section 5.6). No major changes to NHS coverage are expected. Pharmaceutical products are likely to remain the only area in which, in the near future, HTA will be performed on a regular and systematic basis, and this may be extended to medical devices, according to the EU's Directive on medical devices (see section 2.6.2 *HTA*).

3.3.2 Collection

General government budget
A budget for total NHS expenditure is established within the annual government budget. Traditionally, this has been a soft budget. Actual health expenditure usually exceeded the budget limits by a wide margin, requiring supplementary budgets to be approved. Apart from direct transfers from the state budget, the NHS raises its own revenue, mostly generated by hospitals. This includes payments received from patients for special services such as private rooms, payments from beneficiaries of health subsystems and private insurers (especially relevant for road traffic and workplace accident victims), payments received for the hiring of premises and equipment, income from investment, donations, fines and flat-rate admission charges. In total these supplementary payments account for approximately 13.4% of the overall public hospital budget

(in 2004, the official statistics for the NHS report its own revenue solely from public hospitals). Since 2006, total government spending has been kept within the initial budget. It remains to be confirmed in the coming years whether this is a change in the trend or just a one-off occasion and a very unusual period.

Taxation

The NHS is mainly financed by general taxes. Tax revenue also funds the employer contributions for state and public sector employees. The main tax fund source is indirect taxes, which account for approximately 60% of total tax revenue. Tobacco consumption taxes represent more than 6% of this amount. Taxes on income are another source of tax revenue, comprising 39% of total tax revenue. There is sizeable tax expenditure on health both in the individual income tax and in the corporate tax.

3.3.3 Pooling of funds

The Ministry of Finance, based on historical spending and the plans put forward by the Ministry of Health, sets the NHS budget annually, within an overall framework of political priority setting across the different sectors. Capital and current expenditure are separated, with the Ministry of Health retaining control for all capital expenditure. The ACSS, which is the department responsible for financial management within the Ministry of Health, prepares estimates detailing the resources required to support planned activities. The estimate of total expenditure for the current year is adjusted by the expected increase in the level of consumption, salary levels and the rate of inflation. The Ministry of Finance, based on macroeconomic considerations, ultimately determines the global budget for health.

The Ministry of Health receives a global budget for the NHS, which is then allocated to the many institutions within the NHS (hospitals; health regions, which then allocate funds to primary care centres; and special programmes). The Ministry of Health allocates a budget to each RHA for the provision of health care to a geographically defined population. In practice, however, RHA autonomy over the way in which the budget is spent has been limited to primary care, since hospital budgets are still defined and allocated at the central level.

The RHA budget for primary health care was set in 2003 on the basis of a combination of historical expenditure and capitation. This approach was introduced in 1998 and the budget computation has been progressively skewed towards a relative increase of the capitation component. Each RHA budget reached a balance of 40% for historical values and 60% for capitation. In order to provide an adjustment for health care needs, the capitation component was

adjusted by demography (age and gender) and also by a disease burden index computed according to the regional prevalence of selected health problems, namely four chronic conditions: hypertension, diabetes, stress and arthritis. Weights, based on pharmaceutical expenditure for each disease and region, were computed to create a disease burden index. The demographic index was based on the intensity of primary care visits per cell of age and gender (for further details, see Barros, 2005: chapter 17).

Since 2003, historical values have been predominantly used for initial budgets. An exception to this included a 5% increase in 2005 for one of the health regions (although not the poorest). The "exceptional" budget reinforcement in 2005 also included an amount for payment of debts accumulated by the NHS (which amounted to approximately 35% of the budget). Between 2006 and 2008, budgets were equal to the previous year. In 2009, the increase in 2.5% of the NHS budget was carried through to hospitals' budgets. For 2010, a new methodology, based on estimation of health care needs, was developed and applied.

There is evidence that more spending in a hospital (with a deficit well above the allocated budget) in a year results in more funds allocated in the next year, even after controlling for the increases in activity of the hospital and for more resources used. This has created a clear incentive for overspending. At the least, this decreases the incentive for good management practices.

3.3.4 Purchasing and purchaser–provider relations

Reform proposals initiated in 1996 intended to increase the purchasing role of the RHAs in order to move the system gradually from an integrated model towards a contract model of health care (see section 3.7.1 *Paying for health services*). The core instruments of this contracting culture would be the regional contracting agencies at each RHA. Their role is to identify the health needs of geographically defined populations and prospectively negotiate activity programmes and budgets with the provider institutions, with a view to integrating primary and hospital care to meet those needs.

Since 2003, the hospital payment system has evolved towards a contract-based approach (see section 3.7.1 *Paying for health services*). In that year, roughly half of the hospital sector was given corporate-like status, which has now been extended to more hospitals. The contract approach is currently applied also to purely public hospitals. Contracts are set for one year and stipulate the overall payment and expected production level of the hospital (by broad lines of activity).

3.4 OOP payments

In recent years, there has been increasing use of cost-sharing in health care with the aim of making consumers more cost aware.

3.4.1 Cost-sharing

Cost-sharing is a part of both the NHS and private financing arrangements. All three forms of cost-sharing are present in the NHS; the most common are co-payments (or user charges), defined as a fixed amount charged for a service; these exist in most public health care services. User charges exist for consultations (primary care and hospital outpatient visits), emergency visits, home visits, diagnostic tests and therapeutic procedures (Table 3.3). In April 2007, user charges for hospital admission episodes were introduced (€5 per day, with a maximum of 10 days' charges) and there were also user charges of €10 per outpatient surgery episode. These user charges were removed in 2009; the decision was based on the lack of economic significance of these co-payments.

Table 3.3
User charges for health services

Health service	Type of user charge	Exemptions and/or reduced rates
GP visit	Co-payment	Social security beneficiaries and certain patient groups are exempt from these user charges Patients over 65 years old were exempt from 50% of the inpatient user charge
Primary care	Co-payment	
Outpatient specialist visit	Co-payment	
Outpatient prescription drugs	Co-insurance, varies depending on therapeutic value	
Inpatient stay	(Co-payment removed in 2009)	
Dental care		
Medical devices		
Emergency visit	Co-payment	

Note: There is no cap on OOP payments.

The values set for co-payments are typically small when compared to the cost of the service. For example, the co-payment for emergency department cases in central hospitals (the ones with the highest technology level) is €8.75, while the average cost of an episode is €143.50 (according to the values published by the government). There is no annual ceiling on co-payments.

Co-insurance, in which the user pays a fraction of the cost of the service, is in place for pharmaceutical products covered by the NHS and for other health insurance arrangements (subsystems and VHI). The co-insurance

on pharmaceuticals varies depending on the therapeutic value of the drug. Pensioners pay a reduced rate and chronically ill patients are exempt from the cost of some courses of medication. More detail about the level of co-insurance for pharmaceuticals is given in section 5.6. Indirect methods of cost-sharing are also present, namely reference pricing for pharmaceutical products. Finally, deductibles are present in some commercial health insurance contracts.

Cost-sharing is a highly debated issue in Portugal. Despite it being a contentious manoeuvre, the government was able to increase co-payments in 2006 and introduce user charges for hospital admission episodes in 2007. However, by 2009 these user charges were abolished. Historically, governments have been able to increase co-payments because opposition has never been strong enough to prevent this. Although there have been recent increases, cost-sharing in public provision of care represents a relatively small amount (approximately 1%) of total health expenditure. Cost-sharing is, however, quite significant for pharmaceutical products.

The different cost-sharing instruments have different objectives. The (stated) objective for co-payments is to contain and regulate demand for public services (the standard argument of moral hazard control). This is visible, for example, in the smaller value paid by patients if they choose to go to primary care centres instead of going to hospital emergency departments for care. On the other hand, the role of co-insurance with regard to pharmaceutical products is not only to influence demand but also to shift the financial burden to the users, given its relatively high value. Moreover, to induce higher usage of generic products, a reduced rate of co-insurance was in place from 2000 to 2006 (see section 5.6).

The total value of co-payments in NHS hospitals is approximately 0.7% of total NHS expenditure, while those charged in primary care amount to 0.28%. (This value is an underestimation, as no information was available for some cases.) The above cost-sharing arrangements are accompanied by mechanisms designed to protect vulnerable groups of the population. Exemptions from co-payments are generous and include pregnant women, children under 12 years of age, pensioners on low income, persons responsible for disabled young people, and socially and economically disadvantaged populations.

3.4.2 Direct payments

OOP payments (including cost-sharing and direct payments for private sector services) have consistently accounted for approximately 23.1% of total health expenditure in 2006 (see Table 3.1, p. 52). Pharmacies (dispensing chemists),

outpatient care centres and offices of physicians, hospitals and nursing and residential care facilities represent approximately 90% of a household's OOP payments on health care. Most dental care is paid for out of pocket, as are many specialist consultations in private ambulatory care.

There is no detailed information on the role and magnitude of informal payments. The general perception is that they play a minor role, if any. The patient pays transportation costs, except in special circumstances such as long-distance travelling, in which case costs are subsidized. Emergency care transportation, on the other hand, is provided free of charge by the INEM (see section 5.5).

3.5 VHI

3.5.1 Market role and size

Most private insurance provides limited coverage, as all "insurance products" assume a supplementary nature relative to the NHS coverage. Approximately 20% of the population has taken out some form of VHI. About half of the policies are group insurance provided by the employer, and half are individual policies (51.7% in 2008; Instituto de Seguros de Portugal, 2009). In 2008, the health insurance sector growth increased to 9.6%, which is higher than the growth rate in 2007 (8.2%); this growth was fostered by the increase in group insurance.

3.5.2 Market structure

There were 19 insurers selling VHI in 2007 (Thomson & Mossialos, 2009). The majority of VHI policies in Portugal are valid for only one year and consequently companies have the power to cancel and/or refuse to renew the contract. In addition, policies tend to be selective and lack comprehensiveness: as age is strongly associated with increased health care costs, many companies will try to exclude anyone over 65 or 70 years old. The characteristics of those with VHI in Portugal include: ages between 20 and 54, urban residence, medium to high income, and employment in medium to large companies (Thomson & Mossialos, 2009).

Since commercial private insurance is provided in a free market, there is considerable diversity of products and of contractual conditions. The growth of the private insurance market is facilitated by the tax credit associated with

private health insurance premiums. The tax benefits for OOP expenses in general consist of a tax credit rate of 30%, but the upper limit for the tax credit is lower, at €156 for a married couple.

Corporate insurance policies are more generous because corporate tax laws are more liberal, in the sense that fiscal deductions are more generous to corporate health insurance contracts than for individual health insurance policies. Even so, few firms currently provide private group health insurance. It seems likely, however, that any further growth in the market will be in group and employer insurance policies. The main reasons for a potential growth in the private insurance market include the current tax incentives encouraging high earners and companies to take out VHI, the social status that VHI confers on subscribers since it is an indicator of high income, and difficulty in accessing the NHS and dissatisfaction with its services.

Over time the VHI market has become more concentrated, which reflects an increased concentration in the banking and insurance sectors more broadly (Thomson & Mossialos, 2009). In 2006, three largest insurers constituted 80% of the market, as defined by the proportion of total premium income.

3.5.3 Market conduct

Private insurers set premiums based on risk, as measured mainly by age but to a lesser extent by health status. There are also limits to coverage in the form of a benefits ceiling, as well as cost-sharing requirements (balance billing, co-insurance and co-payments) (Thomson & Mossialos, 2009).

There is no explicit selection of insured people, in the sense that no systematic denial of particular risk groups has been identified. However, age-based exclusions are common. Most likely, selection effects occur through definition of coverage and services made available. One such case is the BPI Medical proposal, with coverage tailored to the life-cycle position of (potential) insured people: having children below 12 years for one policy, and above 12 years for another one.

The private health insurance schemes mostly pay health care for their subscribers through retrospective reimbursement based on fee-for-service. The average claims ratio (the ratio of benefits paid to premium income) was quite high in Portugal relative to other countries (88%), which suggests that private insurance is not a relatively profitable business in Portugal. The costs of management and administration in the private insurance market are relatively low, at 15% of premium income (Thomson & Mossialos, 2009).

3.5.4 Public policy

The private insurance market is regulated by the Portuguese Insurance Institute, the Consumers' Institute and the Portuguese Competition Authority (Thomson & Mossialos, 2009). There are no regulations in place to improve access to the market, as can be found in other European countries.

At present there are tax incentives for VHI aimed at both individuals and groups. A tax reform in 1988 made most health expenditure, including co-payments and payments to private doctors, deductible from taxable personal income. The value of this implicit government subsidy associated with VHI, that is the value of the fiscal benefit deriving from private health insurance, has been estimated at €24 million, a relatively small proportion of total government spending. Incentives are skewed in favour of OOP expenditure, benefiting from generous (by international standards) fiscal treatment.

3.6 Other financing

3.6.1 Parallel health systems

Health subsystems

The health subsystems, which pre-date the establishment of the NHS, account for approximately 9.24% of total health expenditure. They are normally financed through employer and employee contributions, with the largest portion paid by the employer. Most beneficiaries of public sector health subsystems, such as those covering civil servants (ADSE), contribute 1.5% of their (gross) salary (up from the historical 1% contribution rate). However, these contributions represent a minor share of the funding of public health subsystems, as the government, through the state budget, contributes close to 90% of total funds.

Private subsystems also receive mandatory contributions in a way that closely matches the practice of public health subsystems. However, in the private subsystems, contributions vary. In the subsystem for Portuguese Telecom workers (PT-ACS), the contribution of each employee was approximately 1.7% of the wage for 2007, and it increased to 1.9% in 2008 and 2.1% in 2009. These contributions can be included in income tax computations as equivalent to social security contributions, benefiting from a tax exemption. Most of these private subsystems (and the more important ones) have been associated with large companies that, after nationalization in the aftermath of the 1974 revolution, have undergone privatization in the 1980s and 1990s (including sectors such

as banking, telecommunications, air transport and energy). Recent trends suggest that private subsystems are becoming more like commercial private health insurance. In private subsystems, such as those of private enterprises, the contribution that is wage-related can vary, and can even be symbolic or non-existent. Generally, the benefits received under subsystem coverage exceed those provided within the NHS. The employer and employee contributions are often insufficient to cover the full costs of care and, consequently, a significant proportion of costs is shifted onto the NHS. Traditionally, most subscribers to these funds do not declare their membership when receiving treatment within the NHS, thus exempting the funds from responsibility for the full costs of their members' care. The mandatory use of the Patient Identity Card (which was introduced in 1995, and became mandatory in 2000) is progressively avoiding such duplications of coverage since it clarifies where financial responsibility for the patient lies (see section 2.6.1 *Information systems*).

The relationship between the NHS and the subsystems was explicitly addressed by the publication of Decree-Law 401/98, of 17 December 1998. A scheme of systemically controlled "opting-out" was devised, by which the financial responsibility for personal care in the NHS could be transferred to public or private entities by means of a contribution to be established in a contract with the Ministry of Health. Three agreements have been made between the Ministry of Health and certain subsystems (PT-ACS and SAMS, the subsystem for banking and insurance employees). The state transfers annually to those entities a certain amount for each beneficiary and, in turn, the corresponding subsystem pays the full price of NHS hospital services and ceases to benefit from NHS co-payments in drug dispensing. The benefits of the improved articulation between the NHS and the subsystems are unquestionable.

Effective from January 2007, two of the "opting-out" agreements have been cancelled by the initiative of the health subsystems. The reasons for the decision are not clear as of January 2011. Publicly, there was divergence between the health subsystems and the NHS on the number of beneficiaries that were included in the "opting-out" agreement and on the value of the capitation transfer. This coincides with an evolution of the health subsystem organization and coverage towards traditional commercial health insurance. On the other hand, "opting-out" did not rank high on the political agenda. Therefore, despite some conflict reported in the media, there was an apparent alignment of interests of both parties involved to terminate the "opting-out" agreement.

The health subsystems allocate financial resources according to a system of reimbursement to both members and providers following established price lists. A few of the schemes also employ doctors and provide services directly for their members.

3.6.2 External sources of funds

Since 1994 there has been a programme of investment in health care services, co-financed by the EU. Through the ERDF significant investments have been made. For each co-financed project the Portuguese contribution must be at least 25% of total investment. The external funding complements the Ministry of Health's own capital expenditure plans. Preparatory work is taking place in order to design and implement a new strategic plan for health with a 10-year horizon. A broad process of internal consultation has been initiated, alongside external consultation, with WHO support, in order to learn from the experience of other European countries.

The health funds for 2000–2006 (the *Saúde XXI* programme) were determined as a result of negotiations between Portugal and the EU under the strategic assumption that health promotion and disease prevention, along with supporting information systems and technologies, are the pillars of any real investment in the health sector. There has been, therefore, a shift of focus from the previous funding of building and infrastructure maintenance to the funding of strategic structural support areas for health. The *Saúde XXI* programme is structured along three development axes: health promotion and disease prevention; access to quality health care services (including a vast network of hospital referral arrangements); and promotion of health partnerships between the public and the private profit-making and non-profit-making sectors, with a special emphasis on home care, long-term care and family health.

3.6.3 Other sources of financing

Mutual funds

Approximately 7% of the population is covered by mutual funds, which are funded through voluntary contributions. They are non-profit-making organizations that provide limited cover for consultations, pharmaceuticals and, more rarely, some inpatient care. They do not exclusively provide health benefits to associates so it is difficult to calculate the health component of the contributions.

Long-term care

Long-term care has been neglected in terms of public sector involvement until recently. Traditionally, *Misericórdias* and other nongovernmental organizations have provided long-term care. The NHS paid some of the care they provided. In 2006, following an increasing awareness over the period 2003–2006 of the very limited role, given population needs, of public sector in long-term care, the RNCCI was set up, mainly in private institutions (largely non-profit-making) (see section 5.8). The financial responsibility for the public sector is shared between the Ministry of Health and the Ministry of Labour and Social Solidarity.

3.7 Payment mechanisms

3.7.1 Paying for health services

Payment of hospitals

Hospital budgets are drawn up and allocated by the Ministry of Health through the ACSS. At present, public hospitals are allocated global budgets based on contracts (*contratos programa*) signed with the Ministry of Health. Traditionally, budgets had been based on the previous year's funding, updated for inflation, but since 1997 a growing portion has been based on DRG information as well as on non-adjusted hospital outpatient volume. This new activity-based resource allocation model brought to bear research that had begun in 1990, involving systematic DRG grouping and the computation of hospital case-mix adjusted budgets.

The need to collect data on an individual patient basis for DRG grouping purposes has led to the generation of a significantly improved information system for hospitals based on a minimum basic dataset – *Folha de Admissão e Alta*. This basic information system started to be developed in 1989 at the inception of DRG implementation in Portugal; today it covers all NHS hospitals. The centralized version of the system, which is run by the ACSS, assists in the process of adjusting prospective budgets for case-mix and other hospital specificities, enabling a more equitable allocation of resources than would otherwise be possible if what was available was only data on patient volume or information on the length of stay.

DRGs were introduced gradually between 1997 and 2002, and they have been used to set the totality of the funding for NHS hospitals and inpatients since 2003. NHS inpatient care funding through DRGs represents around

75–85% of NHS hospitals' inpatient budget, the remaining percentage corresponding to billing to third-party payers (see Mateus, in press). The DRGs are used to set the budget given to the hospital, not to define a payment episode by episode. Some other refinements of the budget computation have been implemented since 2003, such as case-mix adjustment for ambulatory surgery and the set-up of hospital peer grouping using a "fuzzy" methodology ("grade of membership" model) for price setting. In this methodology, a hospital is not necessarily allocated to a group. Instead, the procedure defines a small set of benchmark hospitals, and computes the probability of a given hospital being in the same group of each of the benchmark hospitals. For example, a medium-sized hospital may be associated with 30% probability with a small benchmark hospital and with 70% probability with a large benchmark hospital (the probabilities being the "grade of membership" to each group; see Vertrees & Manton, 1986, for further details). In spite of the formal sophistication of the payment model, the initial budget allocation was more indicative than normative. Because budget overruns are covered by supplementary allocations, the activity-based system had limited incentives to encourage cost-containment or efficient practices. This system was abandoned in 2001, in favour of a group classification derived from clusters based on principal components analysis.

With the introduction of new status for hospitals in 2003 (the so-called "*Hospitais SA*"), management rules and financial responsibility at the hospital level changed. In the first year, only roughly 40% of the hospitals received the new status (accounting for almost 50% of total NHS hospital activities). Since 2005, and after an assessment made by an independent commission, more hospitals have been given the new status. To eliminate fears of privatization of public hospitals, the government changed the legal status of the hospitals. They are now "*Hospitais EPE*" (public enterprise), but the management rules saw virtually no change relative to "*Hospitais SA*". A major innovation introduced by this change was the contracts (*contratos programa*), through which the hospital commits to certain levels of activities (admissions, external consultations, emergency department episodes and ambulatory care cases) in return for an overall yearly budget. Negative financial results are to be borne by the hospital, although it is yet to be seen what the government will do in the event of repeated negative financial results. (For the history of contracting within the Portuguese NHS, see the chapter by Ana Sofia Ferreira et al. in Simões, 2009.)

At present, the main issue with the payment system is the restoration of global budget credibility. In 2006, unlike previous years, the initial budget for the NHS was in line with the previous year's expenditure. This provided an opportunity to break the overspending cycle. In 2006, overall spending in the

NHS was kept within the limits of the initial budget, and the same happened in 2007. Despite the imposition of "hard" budgets, there has been no increase in waiting times. The pressure for more productivity has actually led to a decrease in the median waiting time and in the number of people on waiting lists for surgery. The oncology waiting list for surgery is a good example. The median waiting time decreased from 79 (2005) to 36 (2008) days, and further to 28 days in 2009, according to a recent study from the Ministry of Health. In 2009, the number of patients on the waiting list decreased from 4094 to 3515, and the number of surgeries increased from 39 517 to 40 833 (Ministry of Health, 2010)

The establishment of contracting agencies in each RHA in 1998 aimed to change the way in which resources are allocated within the NHS by introducing negotiable prospective budgets. The power of the contracting agencies was at the outset quite limited, as the leverage of the purchaser was not sufficient to punish the hospital management, to impose any consequence upon them, or to force the needed corrective measures. Nevertheless, it was expected that the introduction of contracting mechanisms would increase cost awareness and provide incentives for efficiency. The first contracting agency was established in 1997 in Lisbon and Vale do Tejo, and was subsequently recognized and endorsed by the Ministry of Health. The process continued and was reinforced throughout 1998 and 1999 with the creation of more agencies (one in each of the five RHAs) and the drawing up of tools and methods for negotiation and contract follow-up. Budget negotiations in all RHAs began in 1999, with what has been conjectured to be marginal impact, as the main relationship was still between the financing institute within the NHS (the IGIF, the predecessor of ACSS) and the hospitals. The room for budget adjustments by the RHAs was minor. An amount corresponding to 3% of the total hospital budget was allocated to individual facilities as a result of the contracting arrangements between the contracting agency and the hospital boards, with respect to their performance levels. Access to more efficient and better quality services was the cornerstone of the negotiations. To date there has been no assessment of the impact of these changes on access, efficiency or quality.

The role of contracting agencies has changed over the past few years. They are now less independent of RHAs, working as a group of experts whose main aim is to assess the degree of accomplishment of the contracts (*contratos programa*). They also have the task of monitoring overall hospital performance.

Besides direct transfers from the government, public hospitals also generate their own revenue from payments received from patients for special services (e.g. individual private rooms), payments received from beneficiaries of the health subsystems or private insurance, and flat-rate user charges for outpatient and diagnostic services (see section 3.4). As a whole, these payments account for as much as 15–20% of the overall hospital budget. Private donations are also to be considered, despite their residual values, especially for equipment acquisition.

The health subsystems and private insurance schemes reimburse NHS hospitals retrospectively on a case-by-case basis for inpatient care and ambulatory surgery (according to a DRG price list), and on a fee-for-service basis for ambulatory services provided to their beneficiaries. Private insurers may use different modes of reimbursement. In some cases, patients are expected to pay and then be reimbursed retroactively for the cost of services. The insurance companies also define networks of preferred providers, at which the patient only pays the co-payment (the remaining being settled directly between the provider and the insurance company). This method acts as an incentive for such patients to seek treatment from contracted providers.

Payment of primary care centres

Primary care centres are responsible for delivering primary health care. They do not yet have financial or administrative autonomy. The Ministry of Health allocates funds to the RHAs, which in turn fund the global activity of each health centre through the recently created ACES. The *contrato programa* (contract) of each of the ACES, which is responsible for primary health care delivery in a given geographical area, is negotiated between the ACES and the RHA.

In the past, several experiments, or pilots, were conducted in order to find the most suitable way to finance and run the budget of primary health care facilities. In 2000, an experiment was conducted at the Lisbon and Vale do Tejo RHA to allocate indicative global budgets to primary care centres. Following a model similar in principle to the hospitals' payment system, a resource allocation formula was devised, combining an historical expenditure component (80%), an activity-adjusted component using weighted production units (WPU) (15%), and a residual component to be allocated based on the number of residents with Patient Identity Cards (5%). The intention was to simulate the impact of an activity-related allocation formula on the future autonomous primary care centres.

In 2006, a reform approved by the government was expected to introduce further changes to the previous organizational and funding models of primary health care. This reform was based on the idea of USFs, which are multidisciplinary teams, paid partially through incentive mechanisms. These include, among others: (1) capitations, that are age-adjusted, related to the size of the list of patients, and the carrying out of house-calls and number of working hours; (2) performance compensations, related to the annual contracting of specific surveillance activities, with respect to vulnerable or high-risk patients; and (3) an additional set of services, if contracted (Decree-Law 18/2007). Multidisciplinary teamwork and organizational flexibility were promoted in a bid to create incentives for the provision of better primary care services to the population. A study conducted for the Ministry of Health showed that a reduction in cost per appointment could be expected under the new payment system, due to fewer requests for tests and to a decrease in drugs prescription (Gouveia et al., 2006).

3.7.2 Paying health care personnel

Doctors

All NHS doctors are salaried government employees. The fixed salary is established according to a matrix linking professional category and duration of service, independent of any productivity measures. There are three employment levels for doctors: full-time (but not exclusive; 35 hours/week), extended full-time with exclusive NHS employment (42 hours/week with no private practice allowed), and part-time (being employed under the part-time contracts is not allowed for a head of service). There are no data available on the proportion of physicians in each of the three employment categories. There are currently no incentives, or mandatory working hours for the interior and rural areas. Since 2002, there has been a progressive increase in individual labour contracts, that is, the use of private management legal rules for admission of workers in the NHS (both doctors and other health care professionals).

In general, doctors perceive their salaries as relatively low and therefore feel justified in augmenting their income through private sector activity, for which they are remunerated on the basis of fee-for-service payments. In 2006, the highest physician's average monthly wage was €5013.50, and the lowest was €1769.00 (for interns) (DGH, personal communication). However, when additional payments, together with other variable components such as overtime (e.g. on-call duties) are taken into account, the total income per doctor (nearly €35 000/year) is relatively high compared to the average annual full-time wage (€15 400/year). Particularly in rural hospitals, where there are a small number

of doctors and on-call duties frequently arise, overtime can account for the majority of a doctor's income. It is currently perceived that approximately 30% of all medical salary costs are spent on overtime services. A regulation issued in 2001 established new procedures for overtime payment of doctors in hospital emergency departments. From then on, all doctors were paid at the maximum wage per hour (corresponding to a 42-hour/week work schedule, with an exclusive contract), regardless of their actual category of contract. The working hours within the ambulatory setting were extended. This payment scheme was enforced both in hospitals and primary care centres (Decree-Law 92/2001). The intention was to relate these payments to performance indicators with respect to outpatient visits to hospitals and primary care centres, and to operations for patients on surgical waiting lists. There is no information on the extent to which these payments changed provider behaviour. More recently, the Ministry of Health enacted a new ruling, which took into consideration the exceptional overtime work of GPs in emergency departments and the freedom of choice for hospital physicians who opted for the 35 hours per week regime (Decree-Law 44/2007).

In 1996, the Lisbon and Vale do Tejo RHA initiated the Alfa Project to encourage group practice, teamwork and professional accountability (see section 5.3). Groups of GPs were given extra overtime payments and other incentives in return for an assurance of better coverage and accessibility, and adequate referral and follow-up of patients on their lists. The aim was to reduce the excessive demand (and thus cost) in hospital emergency departments in the cities. This experiment attracted only a limited number of innovative primary health care professionals and faced the resistance of the traditional NHS public administration. Most RHAs did not want to launch the project in their regions.

The Alfa Project developed a revised GP payment scheme in which groups of GPs were given overtime payments and other incentives in return for an assurance of providing 24-hour cover and adequate referral and follow-up of patients. A preliminary internal evaluation of these pilots indicated that the integrated models were successful, mainly because there was an improvement in satisfaction on the part of both citizens and providers (Gouveia et al., 2006).

Following this first experiment, a new system of organization and reimbursement for groups of GPs/family doctors was introduced in 1998/1999 with a variable payment based on capitation and professional performance. Participation in the scheme was voluntary and experimental. In the first stage, it is estimated that approximately 12% of doctors enrolled for the new payment

scheme (Gouveia et al., 2006). The mixed system comprises a basic guaranteed salary plus capitation payment based on list size, adjusted for population profile; a fee-for-service payment for target services such as home visits and minor surgery; target allowances for preventive care; and payment for episodes of care such as services provided to pregnant women, including postnatal care. In order to collect greater evidence on the benefits of this new organizational and payment system, the scheme was extended until late 2003. From then on, a series of decrees extended the experiment even further. There were some problems with the design of the new primary care delivery framework, and the experimental regime duration was increased repeatedly. It was replaced by legislation on USFs (*Despacho-normativo* no. 9/2006) in early 2006 (Gouveia et al., 2006). Both the USFs and the primary care centres, as well as all other primary health care delivery teams, now belong to ACES.

The remuneration system for health professionals in the primary care USFs extends those experiments and introduces incentive payments for doctors and for the teams (see section 3.7.1 *Paying for health services*).

It is estimated that about half of the NHS salaried doctors also work in the private sector and many independent doctors work under contract for the NHS. The NHS, the health subsystems and private insurance negotiate fees independently with doctors. Fees charged to the NHS are generally the lowest. Private fees are not regulated by the government but are subject to a range of reference prices set by the Medical Association.

Nurses

The NHS employs nurses as state employees. They are entitled to an annual salary. This fixed salary is linked to a civil service pay scale which rewards people according to a matrix linking professional category and time of service and is not related to performance. Public sector work modalities for nurses are: full-time (35 hours per week), extended full-time (42 hours per week) and part-time (20 or 24 hours per week). As with physicians, there are no data on the distribution of nurses across these three categories. The option for extended full-time is granted on a case-by-case basis, following a needs assessment of the service where the nurse is assigned and requiring authorization from the Ministry of Health. Although there is a determination to cap these cases at a maximum of 30% of the total nursing staff in each institution, their volume is perceived to be much higher. There is a shortage of nursing personnel (see section 4.2), with professionals also using the system as a way of upgrading their salary. It is not uncommon for nurses to work in both public and private institutions, with a "second employment" position, due to scarcity of resources.

However, recent years have seen a large increase in the supply of nurses, to the point where there is now concern over nurses' unemployment, despite the fact that the nurse ratio per doctor or per 1000 population is well below the OECD average.

Health ancillary technicians

The technological and scientific evolution of medical diagnostic and therapeutic procedures has given ancillary professionals a much more relevant role in health care provision. As with doctors and nurses, these professions are salaried under a pay scale that is not related to performance. A major revision of their professional status was accomplished in 1999, along with a revised payment scale.

Other professionals allied to medicine

The majority of the allied professionals are private and independent providers of care. They work under contracts and are reimbursed on a fee-for-service basis. These payments are either made directly by the patient, who is then reimbursed by their fund or private insurance scheme, or directly by the NHS, if the NHS does not provide that service and has an agreement with the private sector.

Members of management boards

Like all staff working in the NHS, members of the management boards of NHS institutions and department heads are salaried employees, appointed by the Minister of Health. Their remuneration is fixed, with no relation to attaining production goals or any other form of performance evaluation. However, as part of the health reform related to hospital management rules, a debate opened up about the virtues of incentive-based payments to health professionals, and the changeover of hospitals into public enterprises is expected to bring about some changes in personnel payment policies. The composition of management boards changed with "*Hospitais SA*" and "*Hospitais EPE*", where for the first time some members of the boards were not health professionals or career graduates from the hospital administrators national programme.

Dentists

Dentists in Portugal work in private practice and are paid on a fee-for-service basis, either by patients directly or by insurance companies if the patient is covered by VHI. Fees are privately determined, with the intervention of the OMD. The Competition Authority has challenged this, and nowadays each private practice sets the fees and has to post them in a visible location. Patients may be partially reimbursed by their subsystem, professional insurance scheme or private insurance scheme if dental care is included in the package of benefits. Dentists are free to determine the level of fees. There are very few salaried

positions within the NHS related to dental care. Only the more highly trained dentists (physicians who specialized in dental care) are permitted to work in hospitals and paid on a salary basis by the NHS.

Pharmacists

Pharmacists in retail pharmacies obtain their income from two main sources: co-insurance directly from patients and the remainder from the NHS (via the RHA) or the relevant subsystem. The remuneration is set as a maximum fixed margin over the wholesale price. In the case of public hospitals, the individual hospital must cover the cost of the pharmaceuticals. If the prescription is from a primary care centre the payments due from the NHS are centralized through the RHA. Members of the National Association of Pharmacies invoice the National Association, which reimburses them immediately; it then bills the RHA in bulk on behalf of its members. One of the perverse incentives of the payment system for pharmacists is that they benefit from dispensing more expensive drugs; therefore they do not stock the cheapest drugs. OTC pharmaceuticals yield the greatest marginal profit. In 2006, prices of OTC pharmaceuticals were liberalized, meaning that outlets (pharmacies and others) are now free to set the prices (see section 5.6). Another major change has been the permission granted for the sale of OTC pharmaceuticals in dedicated outlets, requiring only registration with INFARMED, the regulatory institution for pharmaceutical products. A considerable number of establishments devoted to OTC pharmaceuticals have already opened. Most of the new units, and the ones that seem to be more profitable, are in supermarkets. The number of stand-alone units has started to decrease after an initial surge.

In 2007, the law regulating ownership of pharmacies was changed. Previously, only pharmacists were able to own a pharmacy, and under very restrictive terms. With this new legislation (Law-Decree 307/2007), the ownership of pharmacies was liberalized, and new rules were defined for the opening of new pharmacies. These rules intended to increase competition among pharmacies, and help to extinguish all the monopolistic features of the sector. By 2009, hospitals were allowed to host pharmacies (providing drugs directly to patients) on hospital sites and within hospital buildings.

4. Physical and human resources

This chapter provides an overview of physical and human resources in Portugal's health system and focuses on the current situation and trends. Physical resources encompass infrastructure, capital stock, medical equipment and IT. The section on human resources discusses issues related to the health workforce, such as planning, mobility and training.

In 2008, Portugal had 189 hospitals, 77 of which belonging to the NHS, with a total capacity of 35 762 beds (INE, 2009f). Almost half of the private hospitals belong to profit-making organizations. Trends in hospital numbers have been similar to those in other European countries. There has been a significant decrease in the number of public hospitals over the decades, from 634 in 1970 to 67 in 2008. This is possibly due to the mergers between public sector hospitals in the recent past. One of the government's current objectives is to increase capacity and value for money in the NHS by increasing private sector involvement in the building, maintenance and operation of health facilities under PPPs.

The number of physicians per 1000 population is currently above the EU27 average. The relative number of nurses in Portugal is well below that of other countries, which implies that Portugal has a ratio of nurses to physicians that is much lower than in most countries. The overall distribution and density of pharmacies in the country seem to be balanced, and the number of pharmacists has been growing steadily.

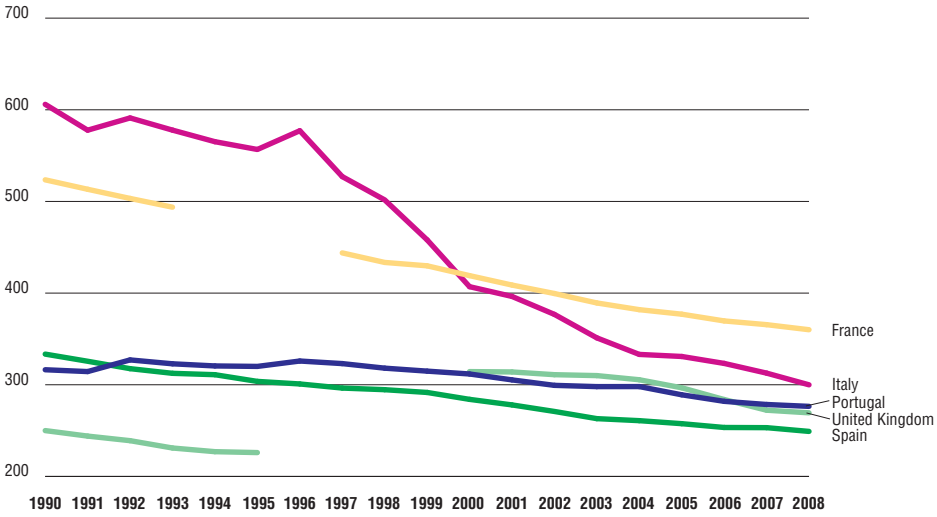
4.1 Physical resources

4.1.1 Infrastructure

Portugal has a relatively low supply of beds compared to other EU27 countries, though it is higher than in countries with similar NHS models, such as the United Kingdom and Spain (Fig. 4.1). The evolution, nonetheless, does match

Fig. 4.1

Beds in acute hospitals per 100 000 population in Portugal and selected countries, 1990–2008



Source: WHO Regional Office for Europe, 2011.

the general international trend: a decrease over time, which is less strong in NHS countries. In fact, looking at the current long-term care reform, the Portuguese NHS is aiming to increase the number of long-term beds to approximately 14 528 by the year 2015 (Ministry of Health, 2010). There are currently 6067 beds devoted to mental health care (Ministry of Health, 2010). There has been a consistent reduction in the number of beds in primary care centres over the past 15 years; in 2008, there were over 5 beds per 100 000 population in primary care centres, compared to 20 in 1995 (Table 4.1).

Table 4.1

Number of beds in acute care, specialized hospitals, primary care centres and long-term care institutions in Portugal, per 100 000 population, 1995–2008 (selected years)

Hospital	1995	2000	2005	2006	2007	2008
Acute care hospitals	235.3	237.5	225.7	221.3	220.1	203.3
Specialized hospitals	52.4	42.6	32.4	30.5	28.0	24.7
Primary care centres	20.7	13.9	9.4	8.4	6.4	5.5
Long-term care network	–	–	–	–	1 788	2 870

Source: INE, 2009f.
Note: Data are also available at http://www.pordata.pt/.

Portuguese mental health facilities belong either to the public or the private non-profit-making care sector. The public sector includes six psychiatric hospitals (one in Oporto, three in Coimbra and two in Lisbon), three child and youth psychiatric and mental health departments (located in the same cities), and 30 local mental health departments, integrated in central hospitals and spread all over the country, namely in the main district areas. These are responsible for most of the mental health care provision (see section 5.10).

Table 4.2 reports on some of the hospital operating indicators in Portugal, Spain, France, Italy and the United Kingdom, including average length of stay (ALOS), occupancy rates and day cases as a percentage of total surgery. As seen in other countries, the ALOS has continued to decline over time in Portugal; it reached 6.8 days in acute hospitals, which is comparable to Spain and Italy,

Table 4.2
Operating indicators in Portugal and selected countries, 1990–2007 (selected years)

		1990	1995	2000	2005	2006	2007
Portugal	ALOS: inpatient care, days	10.8	9.8	9.2	8.7	8.6	8.5
	ALOS: acute care, days	8.4	7.9	7.7	7.1	6.9	6.8
	Acute care occupancy rate, % of available beds	66.7	72.6	71.3	73.2	71.3	72.6
	Day cases, % of total surgeries performed	0.3	6.4	17.6	18.9	23.3	–
Spain	ALOS: inpatient care, days	12.2	10.0	9.0	8.5	8.3	8.2
	ALOS: acute care, days	9.6	8.8	7.1	6.7	6.6	6.6
	Acute care occupancy rate, % of available beds	73.5	76.4	77.2	79.1	78.2	78.2
	Day cases, % of total surgeries performed	–	16.8	31.4	32.2	33.4	–
France	ALOS: inpatient care, days	15.1	14.1	13.2	13.3	13.0	13.0
	ALOS: acute care, days	7.0	6.2	5.6	5.4	5.3	5.3
	Acute care occupancy rate, % of available beds	77.3	76.0	75.4	73.5	73.7	73.9
	Day cases, % of total surgeries performed	–	–	–	–	–	–
Italy	ALOS: inpatient care, days	11.7	10.1	7.7	7.4	7.5	7.5
	ALOS: acute care, days	9.5	8.4	7.0	6.7	6.7	6.7
	Acute care occupancy rate, % of available beds	69.3	70.7	76.0	77.3	78.0	78.8
	Day cases, % of total surgeries performed	–	14.8	35.9	35.8	35.1	–
United Kingdom	ALOS: inpatient care, days	–	–	9.9	9.1	8.8	8.2
	ALOS: acute care, days	–	–	8.2	7.9	7.6	7.2
	Acute care occupancy rate, % of available beds	–	83.4	83.9	83.5	83.4	–
	Day cases, % of total surgeries performed	29.1	41.9	50.6	55.8	55.4	54.4

Source: OECD, 2010.

longer than in France but shorter than in the United Kingdom. Portugal has the lowest proportion of surgeries that are performed as day cases, and relatively low hospital occupancy rates.

4.1.2 Capital stock and investments

Current capital stock

In 2008, Portugal had 189 hospitals, 77 of which belonged to the NHS, with a total capacity of 35 762 beds (INE, 2009f). Almost half of the private hospitals belong to profit-making organizations. The sharp decline in hospitals owned by *Misericórdias* between 1970 and 1980 followed the incorporation of these facilities into the NHS. *Misericórdias* currently operate hospitals and facilities in the areas of rehabilitation, long-term care and residential care for older people, people with disabilities and people with chronic illness (see section 2.3).

Trends in hospital numbers have been similar to those in other European countries. There has been a significant decrease in the number of public hospitals over the decades, from 634 in 1970 to 67 in 2008. This effect is possibly due to the mergers between public sector hospitals in the recent past. Over the last few years there have been progressive improvements to some of the older physical infrastructure (see section 5.4).

Investment funding

The Ministry of Health and some special programmes fund capital investments in the NHS. The investments under the PIDDAC (an investments programme for government departments) amounted to €138 million in 2004 and €92 million in 2005, below the budgeted amounts, and including a significant component of EU co-financing (approximately 45%).

One of the government's objectives is to improve the NHS, providing capacity while guaranteeing better value for money, by associating private entities in the sphere of public responsibility to build, maintain and operate health facilities, under the so-called PPPs. From a financial point of view, the transfer of financial risk investment from the state to the private operators through PPPs relieves the former of the initial investment burden, which would be otherwise excessive considering the financial constraints of the public sector. Objections have been raised in some political sectors regarding the long-term consequences of this option. The model draws heavily on the experience of the English NHS private finance initiative, and the public–private partnership model includes clinical services in the package, in addition to ancillary services, for the first batch of hospital PPPs. Legal provisions have been made (Decree-Law 185/2002) to create an adequate framework for the further implementation

of actual partnerships. Although the intention is to extend the model to virtually all types of health facility, priority has been given to hospitals. Between 2003 and 2006, four hospital projects were launched under PPPs. The Task Force for Partnerships in Health, with specialized human resources and together with external consultants, was responsible for these PPPs (Table 4.3).

Table 4.3
PPPs in Portugal

	Hospital de Loures II	Hospital de Cascais	Hospital de Braga	Hospital de V.F. Xira
Started	12 May 2006	13 May 2004	18 November 2004	20 April 2005
Preparation and previous evaluation	245 days	76 days	32 days	139 days
Approval and launch	66 days	40 days	30 days	88 days
Proposals	159 days	138 days	226 days	136 days
Evaluation of the proposals	404 days[a]	509 days	436 days	690 days
Competitive bargaining	–	171 days	380 days	132 days[a]
Final bargaining	–	315 days	200 days[a]	–
Beginning of the public–private partnership	–	8 October 2008	–	–

Source: Court of Auditors, 2009.
Note: [a] Measured on 16 October 2008.

By August 2010, the Portuguese experience in PPPs included the NHS call centre *Saúde 24*, the southern Rehabilitation Centre at São Brás de Alportel (CRSul), the Hospital de Cascais and the Hospital de Braga. Among these, only CRSul, Cascais and Braga included clinical management in the public–private partnership. In 2009, a specialized team analysed the performance of the CRSul, comparing it to other rehabilitation centres in the country. Results indicate that it is too early to reach a conclusion about the added value of the public–private partnership model in terms of clinical management (see Simões, 2009). There is no consensus around whether the PPPs should include clinical management or not. The most recent decision excludes clinical management from the PPPs (see section 6.1; for further details on the PPPs, and for the specific case of Portugal, see the chapter by Barros in Simões, 2009).

The public–private partnership *Saúde 24* seems to be more problematic. In July and August 2009, the call centre was unable to answer the population's needs. There were enough problems to attract the attention of the media and the Ministry of Health had to intervene. Nonetheless, there is no systematic evaluation of *Saúde 24*, nor is there any comparison of performance against what was in the public–private partnership contract or what would have been

done by a public enterprise. A recent report by the Court of Auditors evaluated the process of four recent PPPs – Hospital de Loures, Cascais, Braga and Vila Franca de Xira.

The process of each public–private partnership is very complex and lengthy, involving preparation and previous evaluation, the approval and launch of the contest, the proposals and the evaluation of these proposals, followed by a round of competitive bargaining and the final bargain with the winner. Each step of the process takes months (see Table 4.3 for the latest processes), and sometimes the process has to start from scratch all over again, because of bureaucratic problems.

4.1.3 Medical equipment, devices and aids

In 1998, an equipment chart was developed (Ministry of Health, 1998), with information referring to 1995/1996. It established national and regional ratios for the major medical technologies for diagnostic imaging (including CT scans and MRI equipment). Since then, new equipment has been introduced and growth in diagnostic imaging examinations has been strong, especially in the Lisbon area. At the end of 2005 there were four positron emission tomography (PET) scanners in Portugal (two in Oporto, one in Lisbon and one in Coimbra). There is no evidence of any health impact of these increases. (For more information on the diffusion of PET in Portugal, see Cardoso, 2006.) In 2007, there were 8.9 MRI units and 26 CT scanners per million population (OECD, 2010).

4.1.4 IT

In 2009, 56% of the families in Portugal had a computer. This represents a 100% increase since 2002. Moreover, 47.9% of the families have access to the Internet, of which 97% are broadband connections. (Internet penetration data are available at Pordata; see section 9.4.)

The ACSS is the service at the Ministry of Health responsible, in a centralized manner, for the study, guidance, assessment and implementation of IT, and for financial management of the NHS. One of its main goals was to develop an information system and respective infrastructure capable of supporting it and allowing effective and rational management of economic and financial resources that are available. The ACSS made available to all citizens a fair amount of information on hospitals, primary care centres and other institutions and projects of the NHS. The web site of the Ministry of Health (Health Portal, 2011a) also provides important information on a regular basis, such as the recently added waiting list of people registered for surgery and performance

indicators for the Ministry of Health. Over time, the ACSS produced several IT software applications for registration and analysis of health units' activities. It also managed the database of hospital admissions (based on DRGs). There have been occasional attempts to launch electronic medical records, but this approach has not yet been widely disseminated.

Some hospitals offer the possibility of booking an appointment electronically (for example, one of the largest hospitals, Hospital de Santa Maria, advertises this possibility on its web page), although this is far from being the norm. There is no information on how effective the booking system is.

4.2 Human resources

4.2.1 Trends in health care personnel

The number of physicians per 1000 population is currently above the EU27 average. The situation regarding nursing staff is quite different. The relative number of nurses in Portugal is well below that of other countries, although comparable to that of Spain. This implies that Portugal has a ratio of nurses to physicians that is much lower than in most countries. The definition of activities that can be performed by nurses and by physicians probably contributes to this lower ratio. Still, recent years have witnessed a movement towards a rebalancing of this trend, with a greater increase of nurses than of physicians, and this is likely to continue in the future. One of the major challenges for the next 10 years, not yet translated into policy actions, is the redefinition of roles for health care professionals.

There were 38 932 medical doctors in Portugal in 2008 (INE, 2009d). Data from the Ministry of Health showed that 25 935 of these were employed by the NHS in 2010, the majority in secondary and tertiary care. GPs/family doctors, who specialize in family medicine, accounted for 23.6% of the total number of specialist physicians in the NHS; 60.2% were hospital physicians and 1.8% were public health specialists.

The increase in the different types of health care personnel in Portugal is shown in Table 4.4. There has been a steady increase in the number of physicians in Portugal since 1990 (Fig. 4.2). Before this, there was a rapid increase from as few as 95 doctors per 100 000 population in 1970 to 283 per 100 000 in 1990. As can be seen in Fig. 4.2 and Fig. 4.4, there were 377 physicians per 100 000 population in 2009, a little higher than the EU27 average (328). There

were fewer physicians per 100 000 population in Portugal than in Italy (413 per 100 000 in 2005) and almost the same number as in Spain. Portugal also has relatively few GPs compared to other EU countries.

Table 4.4

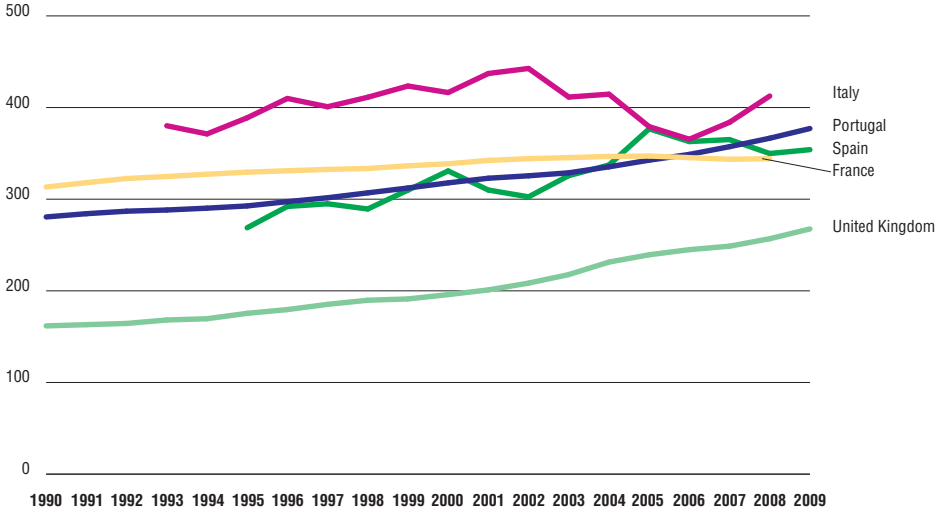
Health care personnel, 1990–2008 (selected years)

	1990	1995	2000	2005	2006	2007	2008
Doctors	28 016	29 353	32 498	36 183	36 924	37 904	38 932
Dentists	667	1 411	3 321	5 056	5 665	5 629	6 033
Orthodontists	375	341	293	384	374	374	374
Nurses	28 154	34 225	–	48 155	50 955	54 079	56 079
Pharmacists	5 438	–	8 056	9 494	10 091	10 117	10 729

Source: INE, 2009d.
Note: Data are also available at http://www.pordata.pt/.

Fig. 4.2

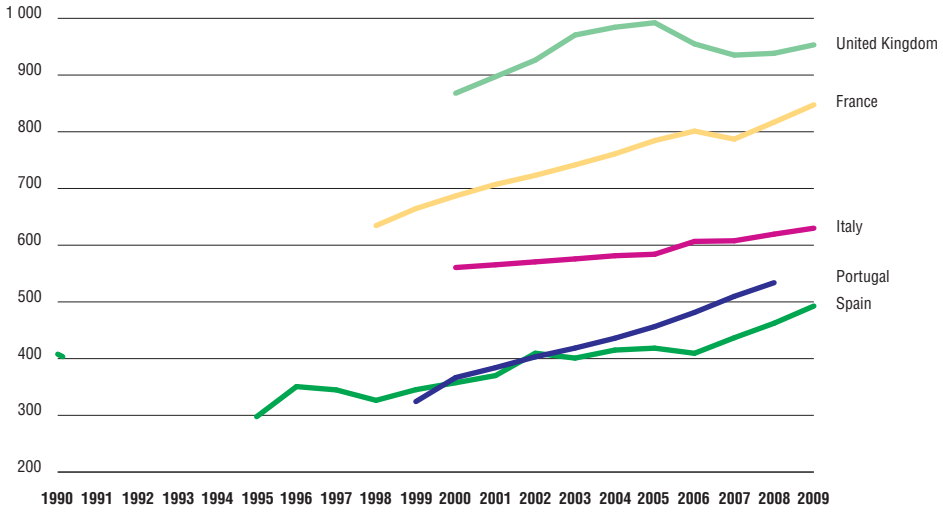
Number of physicians per 100 000 population in Portugal and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

Fig. 4.3

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



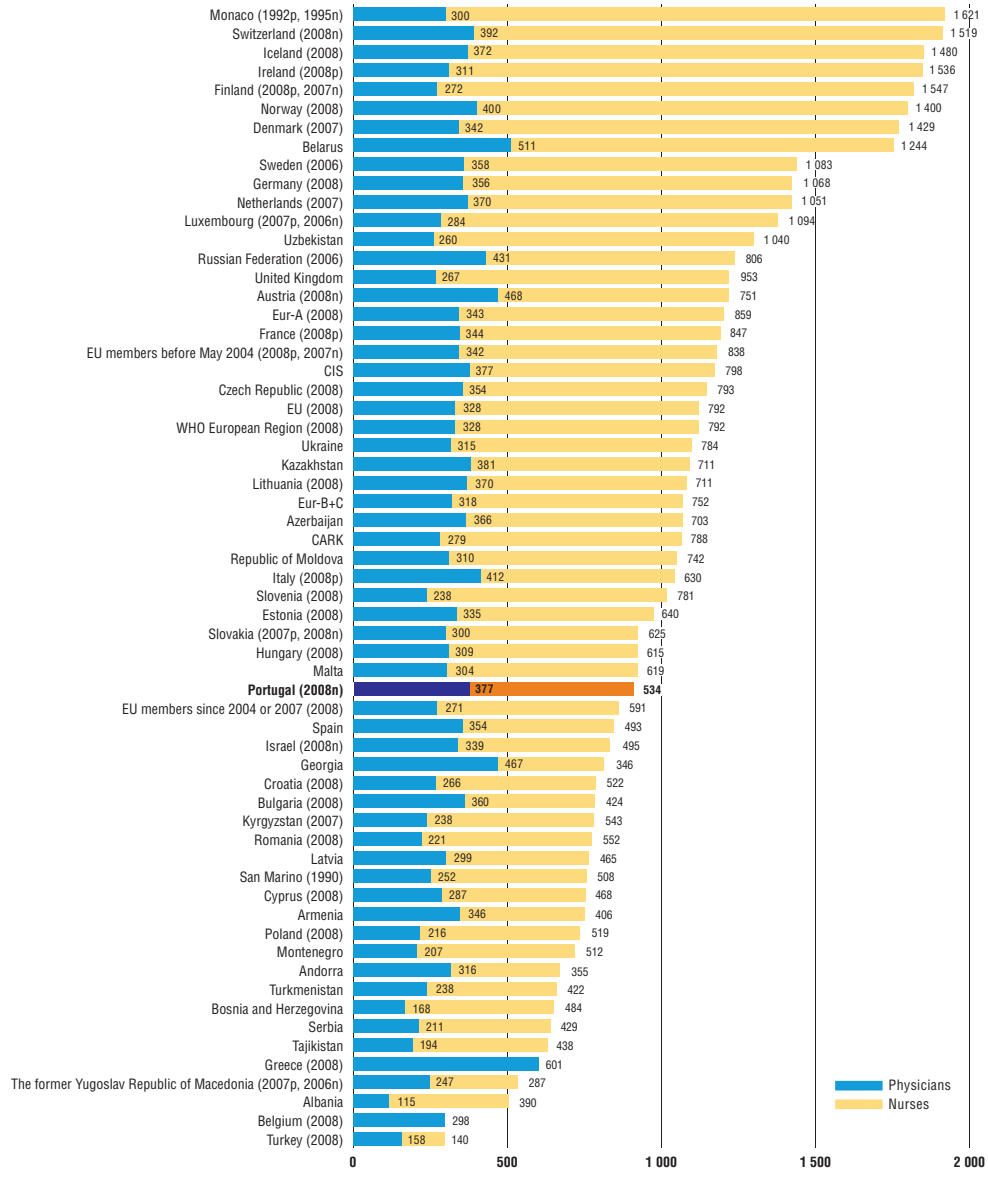
Source: WHO Regional Office for Europe, 2011.

Fig. 4.3 and Fig. 4.4 show that Portugal, like Spain, has steadily increased the ratio of nurses to inhabitants, but has one of the lowest ratios in Europe (534 per 100 000 population versus the EU27 average of 792 in 2009). Approximately 74% of nurses work in central and district hospitals, while only 20% work in primary care services and 3% in psychiatric services. The number of certified nurses rose considerably during the 1970s, from 97 per 100 000 to 224 per 100 000 in 1980.

As Fig. 4.5 shows, the number of dentists has increased steadily since the early 1990s, reaching 67 per 100 000 inhabitants in 2008, more than in Italy, Spain and the United Kingdom. Since the mid 1990s, in addition to three existing schools in the public system, several private schools for dental care medicine have been opened. Training of new dentists reached the order of hundreds in a few years. Most of them work almost exclusively in the private sector, as the NHS does not offer extensive dental care coverage.

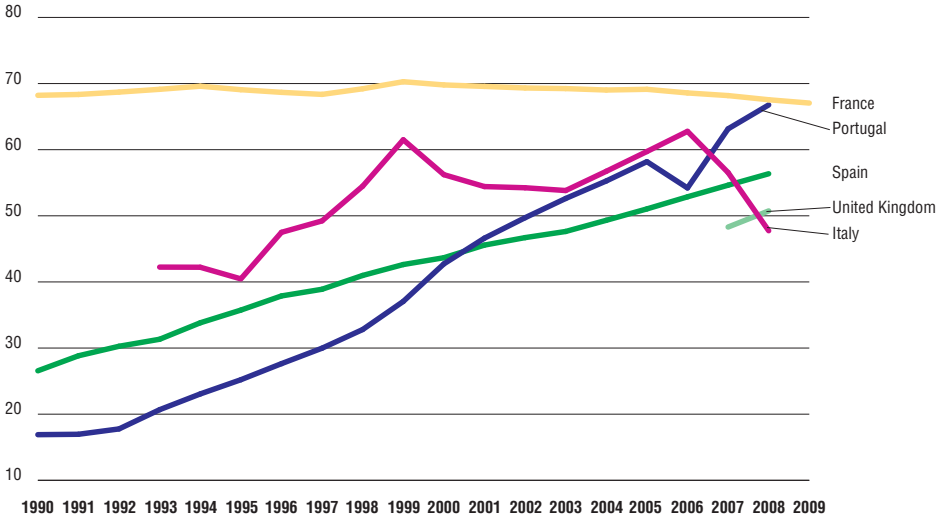
Fig. 4.4

Number of physicians and nurses per 100 000 population in the WHO European Region, 2009 or latest available year



Source: WHO Regional Office for Europe, 2011.
Notes: p: physicians; n: nurses; CIS: Commonwealth of Independent States; CARK: Central Asian republics and Kazakhstan.

Fig. 4.5
Number of dentists per 100 000 population in Portugal and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

4.2.2 Professional mobility of health workers

The number of foreign doctors (mostly from Spain, Brazil and eastern European countries) working in the Portuguese NHS decreased between 2004 and 2007 (Table 4.5). In 2007, there were 1903 practising foreign physicians, 814 in hospitals, 780 GPs and 35 public health specialists.

Table 4.5
Foreign physicians working for the NHS, 2004–2007

	2004	2005	2006	2007
Total number of foreign doctors	2 113	2 123	1 990	1 903
Inpatient care	1 053	1 050	978	814
GPs	770	795	765	780
Public health	28	22	27	35
Other physicians	262	256	220	274

Source: Ministry of Health, 2010.

4.2.3 Training of health care personnel

There are currently eight medical schools in Portugal (two in Lisbon, one in Coimbra, two in Oporto, one in Braga and one in Covilhã). Medical training programmes at the first five medical schools (Lisbon, Oporto and Coimbra) follow the same curriculum and, since the Bologna Treaty, are divided into two cycles leading to a Master's degree (three years plus two years): a core programme covering the basic sciences and a clinical programme based on practice and specialized procedures. The two new medical schools (opened in 1998) in Braga and Covilhã are developing innovative educational programmes relative to the Portuguese tradition (problem-oriented lectures favouring a tutorial system, promotion of training closer to the communities and less hospital-focused, more multidisciplinary integration). After university, all graduates must then undertake a general internship for 18 months, with 6 months' training in general practice and public health, and a year in hospital training. On completion of the internship, graduates are recognized as medical doctors and are free to practise without supervision. However, if they want to follow a medical career in the NHS, they must go on to further specialization. The duration of training for the different medical specialties varies as follows: hospital specialties: 4–6 years; general practice/family medicine: 3 years; and public health medicine: 4 years (including a 1-year postgraduate public health course).

Nurses

To train as a nurse, one must have undergone at least 12 years of school education. The nursing course lasts for four years, and upon successful completion a graduate degree and the professional title of nurse are granted. There are no nursing auxiliaries or equivalents in Portugal. If a nurse wants to specialize, there are several postgraduate programmes of study:

- midwifery: 22 months, after 2 years' clinical experience;
- paediatric nursing: 22 months, after 2 years' clinical experience;
- psychiatric nursing: 18 months and 2 years' experience in mental health and psychiatry; and
- community nursing: 18 months, after 2 years' clinical experience.

The current priorities expressed by the nursing profession include the development of a code of ethics, legislation on the practice of nursing and the creation of a regulatory body.

Other health care professionals

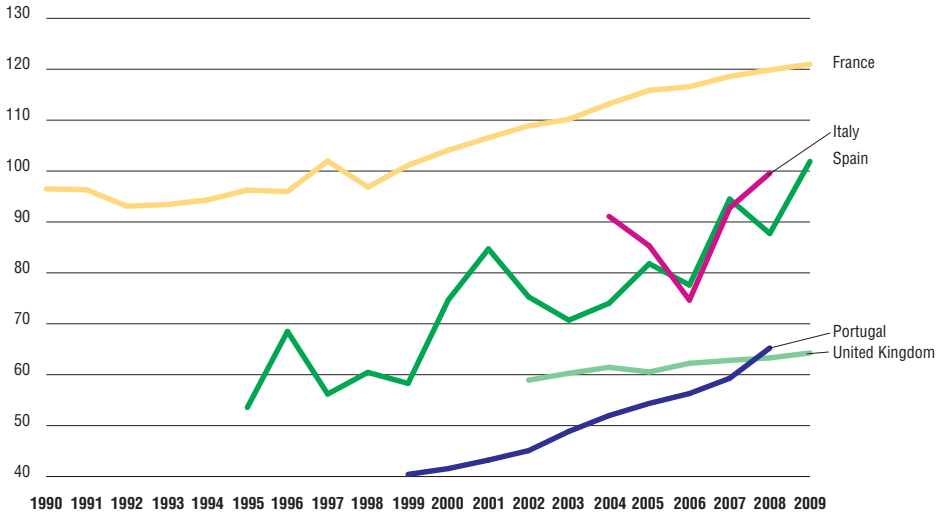
Since 1986, several public and private dentistry schools have opened. The courses have a 10-semester duration since the Bologna Process changes (previously, it was six years of training), and consist typically of four areas of knowledge: basics, biomedics, clinical and multidisciplinary. Previously, physicians who undertook three years' dentist specialist training after their medical degree provided oral health care. Another nonmedical grade exists, that of orthodontist. The government introduced it at a time when there was a severe shortage of dentists, but it has been replaced by the degree in dental medicine awarded by higher education institutions. There are also several allied medical professional degrees being offered, covering 18 specializations (such as physiotherapy and radiology).

Pharmacists

There are fewer pharmacists in Portugal than in other southern European countries, but the number has been increasing in recent decades and is currently at the same level as the United Kingdom but significantly lower than in France, Italy and Spain (see Fig. 4.6).

Fig. 4.6

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



Source: WHO Regional Office for Europe, 2011.

Overall, the distribution and density of pharmacies in the country seems to be balanced, and the number of pharmacists has been growing steadily. The distribution of pharmacies throughout the country is highly regulated (see section 5.6). A study commissioned by *Ordem dos Farmacêuticos* (Pharmacists Association) shows that existing regulations have been complied with, ensuring that a good coverage of the country exists (Rodrigues et al., 2007).

4.2.4 Doctors' career paths

When a medical doctor finishes graduate medical education, after six years of undergraduate study, the residency year and four to six years of specialty residency, she or he becomes an attending physician, the lowest step in the graduate physicians' hierarchy. Promotion within the hospital is based on both the number of years and the positions available in the structure. The clinical directors are responsible for these decisions. The health care personnel wage is regulated, but the hospital board has some decision-making power with respect to wage-setting, especially in the "*Hospitais EPE*". Physicians tend to spend many years working at the same hospital.

4.2.5 Other health staff career paths

All the health staff working for the NHS are civil servants, and have a standard civil servants' career path, with some particular features. The nurses' career path is parallel to the physicians' career path. The difference depends mainly on the years of education. Unlike other health staff, most dentists and pharmacists do not work for the NHS, and they do not have a clearly defined career path. Over the past few years there has been a tendency to leave the NHS hospitals and focus on private practice/practice at private hospitals. The Ministry of Health is trying to overcome this trend by providing more attractive working conditions.

5. Provision of services

This chapter concentrates on patient flows, organization and delivery of services. The respective subsections of this chapter primarily focus on the organization and provision of services, but also comment on the accessibility, adequacy and quality of services as well as current developments and future reform plans.

A mix of public and private health service providers delivers Portuguese primary health care. This network incorporates primary care centres integrated in the NHS, private sector primary care providers (both non-profit-making and profit-making) and professionals or groups of professionals in a liberal system with which the NHS contracts or develops cooperation agreements. In 2008, the creation of the ACES restructured the organization of Portuguese primary health care. Secondary and tertiary care is mainly provided in hospitals. The recently formed RNCCI combines teams providing long-term care, social support and palliative activity with its origins in communitarian services, covering hospitals, ACES, local and district social security services, and municipalities. The INEM is the Ministry of Health organization responsible for the coordination and functioning of an integrated medical emergency system in continental Portugal, ensuring the rapid and appropriate delivery of emergency health care.

Pharmaceuticals that require prescription can only be sold in a pharmacy. It is mandatory to have a technical director with a degree in pharmaceutical sciences in each pharmacy. The location of pharmacies is highly regulated and there is a maximum number of pharmacies permitted in each community. Prescribed drugs are subject to variable patient co-insurance based on effectiveness criteria, with full payment required for those pharmaceuticals deemed to have little or no clinical value.

5.1 Public health

Public health services in Portugal include the surveillance of health status and identification of its determinants, health promotion and disease prevention at community level, and health impact assessment. The organization of public health services at national level is the responsibility of the DGH. The DGH is in charge of the establishment of programmes, definition of strategies and approval of national plans. One objective of the National Health Plan is to strengthen public health at both regional and local levels through the provision of epidemiological expertise and leadership functions in health promotion. At regional and local levels the main entities involved in the delivery of public health services are:

- local health authorities consisting of a public health team based in ACES;
- public health doctors and sanitary technical staff;
- RHAs, supporting public health units within ACES; and
- GPs/family doctors, responsible for health promotion as part of their work, including family planning, antenatal services and screening programmes.

Public health doctors (medical doctors with a four-year specialist internship) are responsible for the epidemiological surveillance of the health status of the population and also for activities such as health promotion and disease surveillance. However, in many primary care centres these responsibilities are transferred to GPs, due to a shortage of public health doctors. Public health doctors' responsibilities include:

- surveillance and control of communicable disease;
- surveillance of water quality parameters;
- environmental health surveillance (with municipalities);
- ensuring compliance of local services (including health facilities) with health and safety standards;
- environmental inspections of workplaces and work conditions; and
- building safety and housing inspection (with municipalities).

In 2008, the creation of the ACES restructured the organization of primary care and public health. The Law-Decree 28/2008 established the regime for the creation, organizational structure and financing of the ACES (see section 2.3 and section 5.3). These groups are formed by a set of teams, including USFs,

long-term care units and public health units. Each unit contains a team of physicians, nurses, health ancillary technicians, among others, and works together with the primary care centres and the other units belonging to the same ACES. In 2009, the public health units were restructured to improve coordination with both the RHA and the ACES. In the same year, a new public health surveillance system was created.

Public health doctors currently have a low status within the NHS and there are problems with recruitment. Their work up to now has been to act as health inspectors and occupational health officers, which was heavily bureaucratic and meant working under old directives. The aim of the latest policies set out in the National Health Plan is to link the development of local health systems with the new public health structures, giving public health doctors a broader remit in terms of the health of the population. By creating these new public health units, previously disparate resources will be brought together.

ONSA, the National Health Observatory, was also established in 1998 as part of the INSA. This observatory aims to centralize major national health information systems and to produce timely reports on the health of the population and its determinants (see section 2.6.1 *Information systems*).

Some of the health education initiatives are run as vertical programmes by separate bodies within the Ministry of Health, for example, the National Prevention Council against Tobacco Consumption, and the four major national programmes: for prevention of cancer, prevention of HIV/AIDS, cardiovascular diseases and older people. The IDT coordinates prevention and treatment of drug and alcohol dependency. However, regional public primary care centres play a big role in promotion and prevention, for example, by developing school health programmes and education towards healthier lifestyles.

Public access to health information is also improving with the mass dissemination of telecommunications, especially the Internet. The *Saúde 24* call centre provides sorting, counselling and guidance to people in need of health care, including those in emergency situations. This service responds to personal primary care needs through health promotion and disease prevention, as well as public health needs, while participating in partnerships with other services to improve the health status of certain groups and communities: it advises people on how to protect themselves from environmental risks, such as heat waves or cold snaps, or the existence of polluted air due to particles in suspension (e.g. a consequence of forest fires); it helps to prevent disease

from spreading in epidemic situations, such as influenza or acute respiratory syndrome; and it promotes and encourages healthy behaviours (nutrition and family planning).

Another useful means of distributing public health information to a vast proportion of the population in a straightforward manner is the development of Internet web sites dedicated to public health issues, such as those provided by the Ministry of Health and the DGH (see section 9.4).

The NHS is responsible for the National Vaccination Plan, which includes vaccines considered to be the most important for protecting population health. These vaccines can be altered from one year to the next in order to adapt the programme to the population's needs, usually by combining new vaccines. People can be vaccinated in local primary care centres and vaccines that are part of this National Plan are free for Portuguese legal residents. Relatively high levels of vaccination are achieved in Portugal (see Table 1.9, p. 12 and Fig. 1.1, p. 13).

From a global point of view, the ACS is responsible for four nationwide coordination bodies for heart disease, cancer, mental health and HIV/AIDS. Each intends to improve the population's epidemiological knowledge of its kind of pathology, to promote prevention and to improve clinical practices and health care provided to affected patients.

Since a great deal of the population's time is spent at school, at work and in leisure locations, public health interventions require a multisectoral approach. To strengthen this approach, the Ministry of Health cooperates with other ministries, such as the Ministry of Labour and Social Solidarity (for workplaces), the Sports Secretary of State (for sports spaces), the Youth Secretary of State (for public leisure locations), the Ministry of Education (for primary and high schools) and the Ministry of Justice (for prisons).

Portugal has the highest percentage among the EU15 countries of people living in absolute poverty, at 22% in 2002 (European Commission, 2002). Poverty is particularly prevalent in the southern region (Alentejo). Poorer and geographically isolated people have even greater problems in accessing health services, because there are fewer hospitals than primary care centres and they are concentrated in more populated/urban areas (Santana, 2000). To reduce inequalities in access to health care, the government has implemented policies aiming to reduce waiting times for surgery in addition to the dental voucher, focused on pregnant women, poor elderly and the youth (see section 2.8.2 *Patient choice*).

5.2 Patient pathways

The first point of contact within the public system is the GP/family doctor in a primary care centre; a patient must register with a GP in his or her region of residence or workplace. Theoretically, people do not have direct access to specialist care and GPs are expected to act as gatekeepers. In practice, patients bypass their GP by visiting emergency departments. Frequently, there is a delay in obtaining a consultation depending on the specialty. (Data on the waiting times for specialist care and diagnostic services are not available.) Many people go directly to the emergency department in hospitals if they have any acute symptoms. It is estimated that approximately 25% of the attendees at hospital emergency units do not need immediate care (Bentes et al., 2004). People who go to emergency departments and genuinely need specialized care are immediately referred. There are user charges for emergency visits; however, these do not appear to affect the inappropriate use of emergency services. Those patients who are covered by the health subsystems can go directly to private hospitals and specialists approved by their schemes. Private physicians can also refer them to NHS hospitals. Those patients covered by VHI may be eligible for private specialist consultations but this will depend on the benefits package offered.

5.3 Primary/ambulatory care

A mix of public and private health service providers delivers Portuguese primary health care. These include primary care centres integrated in the NHS, private sector primary care providers (both non-profit-making and profit-making) and professionals or groups of professionals with which the NHS contracts or develops cooperation agreements. The primary care network promotes, simultaneously, health and disease prevention, including management of acute or serious health problems according to physical, psychological, social and cultural dimensions, without discrimination of whatever source, through a person-centred approach oriented towards the individual, her/his family and the community of which s/he is a member (Bentes et al., 2004). In this section, primary health care is taken to cover all ambulatory health care provided outside of hospital by both general medicine and specialists, and other non-specialist care and services such as dental care, physiotherapy, radiology and diagnostic services.

The number of primary care centres and health posts continued to grow throughout the 1980s and mid 1990s, showing a slight decrease since then, with a total of 377 primary care centres and 1761 primary care medical units in 2008, covering the whole country (INE, 2009f). In October 2010, there were 278 active USFs (Missão para os Cuidados de Saúde Primários, 2011).

The facilities provided by each primary care centre vary widely in structure and layout: some were purpose-built to a reasonable size, with a rational distribution of space and discrete areas for different purposes; some, mainly in large cities, were incorporated into residential buildings and are poorly designed and not patient-friendly; and some, mainly in rural areas and operated by *Misericórdias* or belonging to the church, were established in ancient hospitals and monasteries in the 1960s. Fig. 5.1 shows that relatively few outpatient contacts were made in Portugal in 2009 (4.5 per capita) compared to other European countries, since the figure is lower than the EU27 average (6.2). This is consistent with the disproportionately and, arguably, inefficiently high use of hospital care.

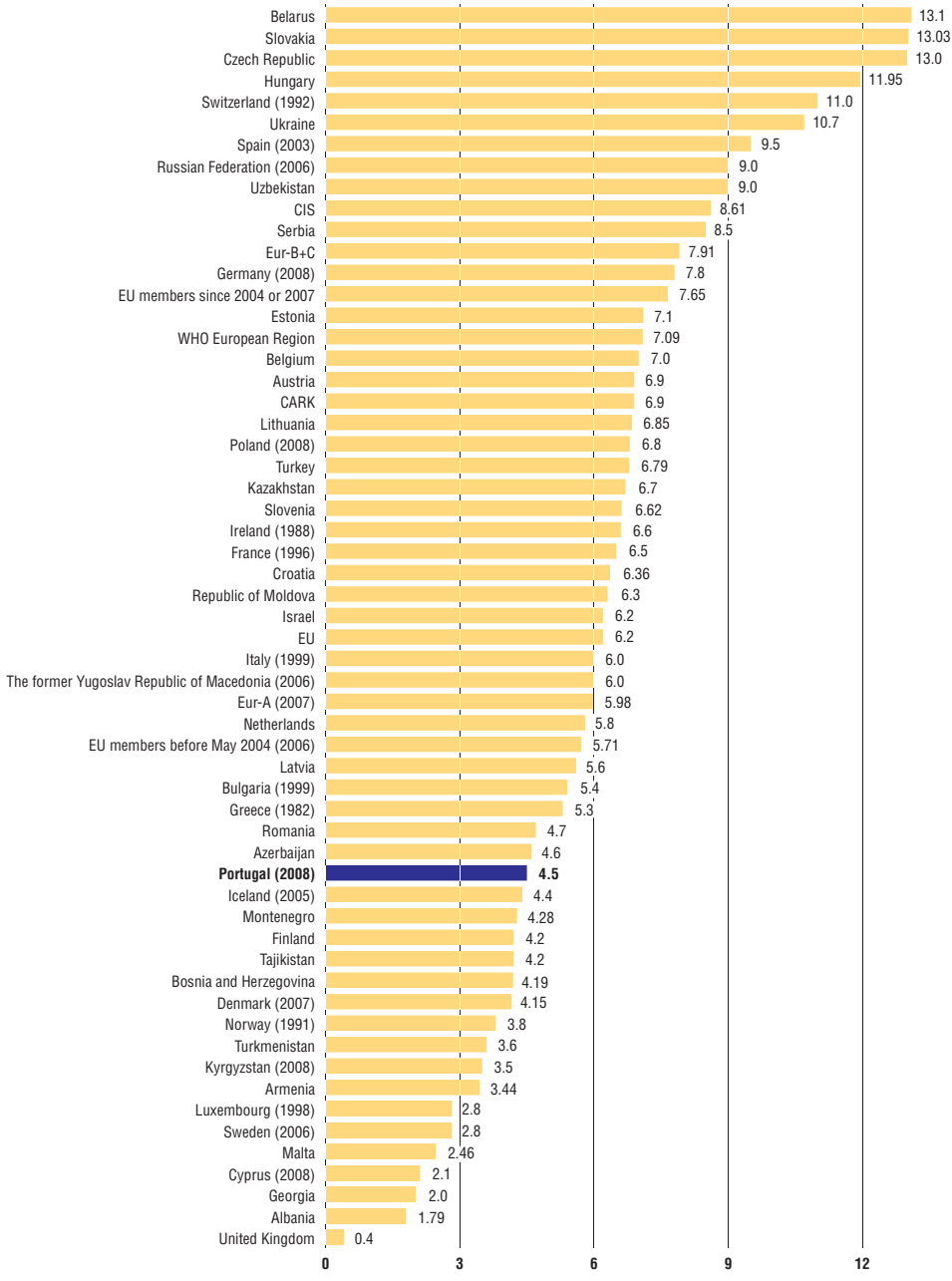
Primary health care in the public sector is mostly delivered through publicly funded ACES. Each ACES has organizational and financial independence, and is composed of several units, which are integrated in at least one primary care centre (see section 2.3). The ACES are under the jurisdiction of the corresponding RHA.

The ACES's mission is to guarantee primary health care provision to the population of a given geographical area. To do so, the ACES develop prevention, diagnosis and disease treatment through planning and providing care to the individuals, family and community, as well as specific activities to address situations of greater risk or health vulnerability. The ACES also provide mechanisms to connect the population with the long-term care network. There is a legal maximum of 74 ACES. The geographical area under the jurisdiction of ACES is set by a Law-Decree, but in general it corresponds to either NUTS III, a municipality or set of municipalities, taking into account the available resources and several sociodemographic conditions, including:

- the number of residents in the area which should be between 50 000 and 200 000;
- the organization of the population in the area;
- the ageing structure of the population; and
- the population's access to the hospital in the reference network.

Fig. 5.1

Outpatient contacts per person per year in the WHO European Region, 2009 or latest available year



Source: WHO Regional Office for Europe, 2011.
Notes: CIS: Commonwealth of Independent States; CARK: Central Asian republics and Kazakhstan.

The Ministry of Health allocates funds to the RHA, which in turn negotiates the *contrato programa* (contract) with each of the ACES (see section 3.3.3 *Pooling of funds*).

Most primary health care is delivered by GPs/family doctors and primary care nurses in the primary care centre setting, together with local family units and long-term care units, among others. Some primary care centres also provide a limited range of specialized care. This is a result of the integration of social welfare medical services into the NHS at the beginning of the 1980s. Specialists who had worked for the Department of Social Welfare were transferred and given contracts in the newly established NHS primary care centres. The specialists who work in primary care centres belong to the so-called ambulatory specialties, such as mental health, psychiatry, dermatology, paediatrics, gynaecology and obstetrics, and surgery. However, very few of these posts will be filled when present incumbents leave. The range of services provided by GPs in primary care centres is as follows:

- general medical care for the adult population
- prenatal care
- children's care
- women's health
- family planning and perinatal care
- first aid
- certification of incapacity to work
- home visits
- preventive services, including immunization and screening for breast and cervical cancer and other preventable diseases.

Patients must register with a GP, and can choose among the available clinicians within a geographical area. Some people seek health care services in the area where they work, but most choose a GP in their residential area. GPs work with a system of patient lists, with on average approximately 1500 patients. There are GPs with patient lists exceeding 2000 and others with fewer than 1000. People may change GPs if they apply in writing, explaining their reasons, to the RHA board. There is no statutory limit to how often someone may change his or her GP. Recently there was a large increase in the number of first appointments in primary care centres (7.7 million in 2008, an annual increase of 12.7%).

Many patients prefer to go directly to emergency care services in hospitals or the private sector where the full range of diagnostic tests can be obtained in a few hours (see section 5.5). This leads to excessive demand on emergency departments and considerable misuse of resources as expensive emergency services are used for relatively minor complaints.

The major problems currently facing primary health care include:

- an inequitable distribution of health care resources (staff shortages in inland areas);
- difficult access to primary health care resulting in emergency department overuse;
- very limited public provision of services in continuing and home care, despite recent developments (see section 5.8);
- mixed opinions about the public primary health care system;
- scarcity of quality control programmes, despite efforts by the IQS (see section 7.4);
- a lack of motivation of GPs working in isolation for fixed salaries;
- limited access to health care services for poorer and geographically isolated people; and
- a shortage of qualified ancillary staff in primary care centres (see section 4.2.1 *Trends in health care personnel*).

A series of health care reforms, initiated in 1995/1996, aimed to tackle these problems by increasing accessibility, improving continuity of care, increasing GP motivation with a new payment system (see section 3.7.2 *Paying health care personnel*), stimulating home care services (see section 5.8) and improving quality.

The NHS has recently restructured the primary care services (see section 6.1) and this intervention covered the following areas:

- reconfiguration and autonomy of primary care centres, by creating the ACES (Law-Decree 28/2008);
- implementation of the USFs;
- restructuring of public health services;
- implementation of local health units (*Unidades Locais de Saúde*); and
- development of information systems.

The initial phase – the one that has had most public visibility – was the creation of USFs which consist of small teams of 3–8 GPs, the same number of family nurses and a variable number of administrative professionals covering a population between 4000 and 14 000 individuals. These teams have functional and technical autonomy and a payment system sensitive to performance that rewards productivity, accessibility and quality. Their main goal is to maintain and improve the health status of people covered by them through general health care delivery in a personalized, accessible and continuous way.

In October 2006, the Ministers Council created, depending directly on the Minister of Health, the Task Force for Primary Health Care (*Unidade de Missão para os Cuidados de Saúde Primários*) responsible for guiding the global launching project, coordination and tracking of the primary care centres' reconfiguration, and implementation of the USFs. More recently, the creation and implementation of the ACES, in 2008, was an important step in the primary health care reform, as discussed above. The Task Force defined seven main targets for this reform:

1. redesign and autonomy of the health care centres
2. implementation of the USFs
3. restructuring of the public health services
4. other dimensions of intervention in the community
5. implementation of the local health units
6. development of human resources
7. development of the IT system.

No formal assessment of the Task Force results is currently available.

5.3.1 Diagnostic and therapeutic services

Portugal also has a large independent private sector that provides diagnostic and therapeutic services to NHS beneficiaries under contracts called conventions (contractual agreements). These medical contracts cover ambulatory health facilities for laboratory tests and examinations such as diagnostic tests and radiology (they are rare in medical consultations), and also renal dialysis and physiotherapy. The NHS publicly declares the terms of service and the prices they are willing to pay. All providers who are prepared to accept the terms and meet basic quality standards can register. A list of all those providers who have registered is published annually (Health Portal, 2011b). In principle, patients can choose from any of the providers who appear on the contracts.

Many patients actually go directly to the emergency departments of hospitals where they expect to receive consultation and tests within a much shorter time. Prices do not vary according to the quality of service, which means providers have little incentive to improve quality. In 2008, the NHS spent €729.5 million in contracted diagnostic and therapeutic services (annual increase of 11%) (Ministry of Health, 2010).

5.4 Specialized ambulatory care/inpatient care

Secondary and tertiary care is mainly provided in hospitals, although, as mentioned earlier, some primary care centres still employ specialists who provide specialist ambulatory services. These positions are gradually diminishing in number and do not form a significant part of secondary and tertiary care provision. This section focuses on hospital inpatient and outpatient services.

Hospitals are classified according to the services they offer.

- Central hospitals provide highly specialized services with advanced technology and specialist human resources.
- Specialized hospitals provide a broad range of specialized services.
- District hospitals are located in the main administrative district and provide a range of specialist services.
- District-level 1 hospitals only provide internal medicine services, surgery and one or two other basic specialties.

Most hospital services are provided according to the integrated model directly run by the NHS. However, nonclinical services, such as maintenance, security, catering, laundry and incineration have for some time been contracted out to the private sector. Also, diagnostic and therapeutic services in the ambulatory sector are mainly provided by the private sector through "any willing provider" contracts (see section 5.3). A very limited number of clinical services are contracted out, usually in specific areas where waiting list reductions are needed (e.g. for cataracts). Decisions on the outsourcing of services are usually made at the hospital administration level, while the decisions to contract providers for specific clinical services, usually within waiting list recovery programmes, remain at the RHA level.

Health resources are concentrated in the capital, Lisbon, and along the coast. At present, there are no specialized or central hospital facilities in the regions of Alentejo and the Algarve, which have only five and three district hospitals,

respectively. The new hospital in Faro, in the Algarve, will be a central hospital. Many of the inland hospitals have suffered from a lack of resources and poor facilities compared to those in Lisbon and Oporto. The investment programme in recent years has concentrated heavily on these poorer rural regions and the hospitals there have benefited greatly. In fact, many of the inland district hospitals now have better facilities than those in the coastal areas.

Since the mid 1990s there have been major improvements and inaugurations of medical facilities. In 1998, two hospitals were created in Santa Maria da Feira and Cova da Beira (Centre region); in 1999, a district hospital was opened in Portimão (Algarve); in 2000 and 2003, another three were opened in Vale de Sousa (North region), Torres Novas and later Tomar (Centre region); and finally, in 2004, another hospital in Santiago do Cacém (Alentejo region) was opened. The use of PPPs for renewed infrastructures also took place, with the first one starting to operate in April 2007 (São Brás de Alportel) (see section 3.7.1 *Paying for health services*) and more recently, in 2010, Hospital de Cascais and Hospital de Braga. The Hospital de Loures process is under way, as well as Vila Franca de Xira and Hospital de Todos os Santos, which will include medical training.

5.4.1 Referral process and links between primary and secondary care

The first point of contact within the public system is the GP/family doctor in a primary care centre, as described earlier (section 5.3). The problem of lack of coordination between hospitals and primary care centres and the large numbers of patients bypassing the referral system has prompted reform. One reform, which has been on the agenda since the foundation of the NHS, was the development of local health units. The idea was to link a hospital (or several hospitals) with a number of primary care centres based partly on geographical proximity and partly on the balance of specialties and availability of an accident and emergency department. These units, the main focus of which was health care institutions, were established but did not achieve all the expected improvements in coordination and did not fulfil the aim of integrating, coordinating and facilitating continuity of care.

Proposals for reform that were enacted in May 1999 took the concept of "local health units" further. These were to include private institutions and local councils as well as the medical services provided within the NHS. Local health systems were expected to lead to better interlinking between secondary and primary, and public and private care. They aimed at changing the present scenario of lack of coordination among services and embracing a broader sense

of health care focused on the population. Population-based budgets were then to be allocated at a local level among all providers, based on the assessment of health needs in the area. In practice, though, local health systems have not been widely implemented. One exception to this might be a similar experience in Matosinhos, near Oporto, which created a local health unit by integrating the hospital and related primary care centres in a unique provider entity. In 2007, a second local health unit was created in the north-east Alentejo region. In 2009, there were four more local health units (Alto Minho, Guarda, Baixo Alentejo, Castelo Branco). To date there is no evidence of any improvements in coordination or communication between primary and secondary care following the introduction of these units.

5.4.2 Day care

Day-care services are provided by the recently formed RNCCI (see section 5.8). By day care we mean the services provided to patients who need specific health care services but do not need to stay overnight (e.g. haemodyalisis, physiotherapy, etc.). Day-care services provide integrated support care to promote autonomy and give social support in an ambulatory regimen, that is, without resorting to the inpatient acute care setting, to people with different levels of dependence who are not cared for at home. This regimen guarantees maintenance and stimulation activities, medical care and periodical nursing care, periodical psychiatric control, psychosocial support, sociocultural animation, nutrition and personal hygiene, when necessary.

5.5 Emergency care

A special institute, the INEM, is the organization of the Ministry of Health responsible for the coordination and functioning of an integrated medical emergency system in mainland Portugal (the islands have their own system). This system ensures the rapid and appropriate delivery of emergency health care. The main tasks of the INEM include: providing medical aid at the scene; assisting transportation of patients to the appropriate hospital; and ensuring the coordination between the various participants in the system. Through the European Emergency Number (112) the INEM has at its disposal several means to respond rapidly and efficiently, at any time, to emergency care situations. To deliver effective medical care in the case of an accident or sudden disease, the INEM uses the following services: Urgent Patients Orientation Centre (CODU, *Centro de Orientação de Doentes Urgentes*); Urgent Patients Orientation Centre

for situations occurring at sea (CODU-Mar, *Centro de Orientação de Doentes Urgentes-Mar*); Anti-poison Information Centre (CIAV, *Centro de Informação Antivenenos*); and the transportation subsystem for high-risk neonates.

In practice, if a health emergency occurs, people should call 112, inform the operator about the situation and location, and hang up when s/he tells them to do so. If it is a health-related emergency the call will be passed on to the CODU, which has permanent medical assistance and central operators with specific training to receive the help request, manage the triage and counselling before aid arrives, and correctly select the adequate rescue means, at the same time preparing the hospital reception for the arrival of the patients. The CODU also has at its disposal various rescue means, including field communication and resources such as ambulances, catastrophe intervention cars and medical emergency helicopters. There is no fee paid by patients for these services. The National Authority for Civil Protection (ANPC, *Autoridade Nacional de Protecção Civil*) and the Ministry of Law and Order have predicted an increase in rescue means and professionals in the INEM, along with better coordination with fire safety services that usually support the CODU's actions in patient transportation and emergency rescue. This prompted a reorganization of the INEM's activities, which seems to be having some result. The years 2004–2008 were characterized by full coverage of continental Portugal by the CODU. The number of emergency calls increased by 41.3% and the number of times INEM ambulances were called for duty increased by 70.4% during this four-year period. Transportation of patients, along with emergency unit activity (vehicles and helicopters), also had increases in a similar percentage range.

5.6 Pharmaceutical care

Pharmaceuticals that require prescription can only be sold in a pharmacy. Until 2007, pharmacies had to be owned by a qualified pharmacist. However, the Ministry of Health passed a law (Law-Decree 307/2007) allowing ownership of a pharmacy to have no constraints other than a maximum number of four pharmacies per owner. It is still mandatory to have a technical director with a degree in pharmaceutical sciences in each pharmacy.

The location of pharmacies is highly regulated. There is a maximum number of pharmacists permitted in each community. The Ministry of Health decides whether there is a need for a new pharmacy in an expanding residential area. In the first instance there must be proof of at least 3500 new clients, and there must

be no other pharmacy within 350 metres of the proposed site. Thus, established pharmacists have a considerable degree of monopoly over the prescription drug market. Despite the changes that have occurred, there is as yet no change in the enforcing of demographic and geographic constraints for the opening of new pharmacies. The regulation and control of pharmaceuticals is described in section 2.7.4 *Regulation and governance of pharmaceutical care*.

The NHS recently increased pharmacy services in hospitals to allow direct sales; a Decree-Law was enacted in December 2006 establishing the possibility of retail pharmacies (open to the population) located in public hospitals that are being contracted out to private management. The first one opened in 2009 in Hospital Santa Maria, the largest hospital in the country. Similarly, in primary care centres only those vaccinations which are provided free of co-insurance are dispensed directly by the institution. Otherwise, patients have to take their prescriptions to a private pharmacist, whether they receive the prescription from a NHS doctor in a primary care centre or from an outpatient department of a hospital.

In 2005, a major change occurred in the OTC market, as it has undergone a double liberalization: OTC products have to be registered with the regulatory institute for the pharmaceutical sector, INFARMED, and can now be sold in specialized stores, which no longer need to be pharmacies, and prices are no longer fixed.

5.6.1 Pharmaceutical co-insurance

Prescribed drugs are subject to variable patient co-insurance based on effectiveness criteria, with full payment required for those pharmaceuticals deemed to have little or no clinical value or deemed not cost-effective. Since 1992, there have been four categories of NHS co-insurance. Pharmaceuticals in category A have a co-insurance rate of 10% (the state reimburses 90% of the costs); category B, 31%; category C, 73%; and category D, 95%. Pensioners with a maximum annual income of up to 14 times the national minimum monthly wage are eligible for a lower level of co-insurance on pharmaceuticals, according to the Decree-Law 129/2009. These pensioners have a 5% and 15% reduction in co-insurance for pharmaceuticals in category A and categories B/C/D, respectively. The Ministry defines which pharmaceuticals fall into each category. Since 1999, some pharmaceuticals have been under periodic re-evaluation for efficacy patterns, resulting in the removal of nearly 100 products from the reimbursement list.

Pharmaceuticals used by some highly vulnerable groups of patients are fully paid for by the NHS. The following therapeutic categories are fully covered:

- anti-diabetics
- anti-epileptics
- anti-Parkinson's
- anti-neoplasm and immunomodulators
- growth and anti-diuretic hormones
- specific drugs for haemodialysis
- cystic fibrosis treatment
- glaucoma treatment
- haemophilia treatments
- anti-TB and anti-leprous pharmaceuticals, and antiretrovirals.

In 1995, a new policy was introduced whereby the NHS imposed cost-sharing on private sector prescriptions at the same level as the public sector prescriptions (Decree-Law 272/95). The rationale of this reform was to reduce the number of private prescriptions being taken to primary care centres to be repeated on an NHS prescription. There has been no formal assessment of the effects of this reform on prescribing patterns.

5.6.2 Pharmaceutical expenditure and policy

Portugal's pharmaceutical expenditure (excluding hospital consumption) was approximately 2.1% of GDP in 2008, which was high compared to other OECD countries. There is a national formulary of pharmaceuticals, which is only used by NHS hospitals for inpatient prescriptions. This does not extend to primary care centres or outpatient services. Guidelines on prescribing behaviour are issued to doctors, and directors of primary care centres are encouraged to draw up local formularies. However, these measures are simply guidelines and are not mandatory. The lack of a national drug list for ambulatory care, together with the powerful influence exerted by the industry on doctors, could explain the high levels of expenditure on pharmaceuticals (as a proportion of GDP). Portugal has made attempts to control expenditure on pharmaceuticals through agreements with the industry, but many have been unsuccessful. In 1997, a budget cap was introduced as a means of controlling costs. This was the result of a voluntary agreement between the government and the pharmaceutical industry, in which the industry agreed to pay back to the NHS 64.3% of any excess between 4% and 11% above the 1996 expenditure; this created a perverse

incentive to inflate expenditure over the limit even further. By the middle of the first year of this initiative, expenditure on pharmaceuticals had already increased by 16%.

In 2001 and 2002, the dimensions of pharmaceutical packages were extensively revised according to their routine usage, resulting in smaller packages of pharmaceuticals for short-term and intensive use and bigger ones for pharmaceuticals used by chronic patients (with a three-month treatment standard duration). There was another attempt to change the dimension of some pharmaceuticals, by creating the option to sell an "individual dosage", that is, the quantity that the patient is going to need for a given treatment. However, the pharmacies seem to have rejected this option, and the measure is being discussed.

Increasing the use of generics has been one of the most relevant cost-control goals of pharmaceutical policy in Portugal. Alongside several public information campaigns about the advantages of generics, in 2000, the price of generics was lowered from 20% below the original product price to 35% below (until 2007). The reimbursement rate was also increased by 10% (until 2006) to provide a consumer incentive towards generics. In 2001, a law was passed stating that medical prescriptions should be prescribed according to the international common designation or generic name, but allowing doctors to add the brand name. This rule applies only to pharmaceuticals with generics on the market, not those still under patent protection. In 2002, another important change was made: the pharmacist can replace doctors' prescriptions with a cheaper generic. To make such replacement possible, the doctors have to fill in a special indication in the prescription form authorizing the generic, or leave it blank. All these progressive changes, and the setting up in Portugal of the largest generics companies, led to a big increase in the utilization of generics. In 2008, generics represented approximately 18.7% (in value) of all reimbursed pharmaceuticals (INFARMED, 2010). However, generics have only a 13.6% market share in terms of volume. Nevertheless, in 2008, there was a 2% increase in pharmaceutical expenditure.

Another aspect of pharmaceutical policy that has been implemented is the use of reference pricing for pharmaceutical reimbursement. Since 1991 (Decree-Law 72/91) the price of pharmaceuticals has been established using an artificial price based on comparisons with other countries. An attempt was made in 1998 to introduce reference pricing and this was implemented in 2003. This system groups pharmaceuticals according to their active ingredients and sets a reference price for the group (often the average or lower-priced pharmaceutical in the

group). The method is only to be applied to the products that have a generic formulation on the Portuguese market, leaving out the pharmaceuticals under patent protection. The reference price is set at the highest price of generics. The government, considering the previous experiences in other countries, expected a substantial reduction in prices of the brand name products without patent protection. The available evidence suggests that a considerable number of products had a price reduction. The reference pricing system has since been adjusted several times, and can be adjusted every three months (Portela & Pinto, 2005).

In February 2006, the Ministry of Health signed a protocol with APIFARMA regarding the growth of expenditure on pharmaceutical products. The main objective of the protocol was the containment of NHS pharmaceutical expenditure. Both ambulatory and hospital pharmaceutical markets are included in the protocol. It established ceilings for expenditure growth, involving the return of excess spending to the government by the pharmaceutical companies if limits are exceeded. The protocol was in place for the period 2006–2009. However, the administrative price reduction in pharmaceutical prices of 6% (in 2006 and 2007) rendered the protocol less effective.

Other changes in pharmaceutical policy have included: (a) the administrative decrease by 6% of pharmaceutical prices for 2006 and 2007; (b) the change of administrative prices from fixed to maximum prices (allowing pharmacies to pass on to patients any discounts obtained at the wholesale level); and (c) the abolition of an extra reimbursement rate for generics that was created with the goal of stimulating the growth of generics, since that objective is considered to have been achieved.

As of March 2007, the government enacted new rulings related to the way prices of new pharmaceutical products are determined and established maximum (not fixed) prices. It is stated that pharmaceutical products sold in Portugal cannot have a price higher than the average of four reference-country prices (Spain, France, Italy and Greece). Until this regulation, the price in the Portuguese market could not be higher than the minimum price of the same product in three reference countries (Spain, France and Italy). Pharmaceutical prices are checked annually to ensure adherence to this new regulation. Where the price of new generic pharmaceutical products is below €10, it needs only to be 20% below the price of the corresponding brand name drug, in all presentations. This measure was prorogued in 2010 (Law-Decree 6/2010), until the introduction of the new reference pricing system.

Since 2007 the pricing of generics has also changed in order to promote further generic pharmaceutical penetration into the market. The policy sets a price reduction of 5% for generics with a market share in the range above 50% and below 60%; a 4% price reduction whenever the generics market share is in the range above 60% and below 70%; and a 3% price reduction in the cases where generics account for more than 70% of the market share (*Portaria* No. 300-A/2007). This policy aimed to obtain the largest gains when generics are more important. From a dynamic perspective, this introduces an incentive for companies to be more aggressive competitors, as generics gaining market share from brand name pharmaceuticals are "rewarded" with smaller price decreases. The maximum price of generic products has been changed many times (*Portaria* 1551/2008; *Portaria* 668/2009; *Portaria* 1460-D/2009). Barros and Nunes's (2010) findings suggest that, in general, policy measures aimed at controlling pharmaceutical expenditure have been unsuccessful. Two breaks were identified. Both coincide with administratively determined price decreases. Measures aimed at increasing competition in the market had no visible effect on the dynamics of government spending in pharmaceutical products. In particular, the introduction of reference pricing had only a transitory effect of less than one year, with historical growth quickly resuming (Barros & Nunes, 2010).

5.7 Rehabilitation/intermediate care

Medium-term care and rehabilitation services are provided by the RNCCI (see section 5.8). These are inpatient services with their own physical space; they are associated with an acute hospital for the provision of clinical care, rehabilitation and psychosocial support due to a clinical situation resulting from recovery from an acute condition or imbalance in a chronic pathological condition to people with a temporary loss of autonomy, which is potentially recoverable. These services aim to stabilize the clinical condition, assess and integrally rehabilitate the patient. They consist of daily medical care, permanent nursing care, physiotherapy and occupational therapy, prescription and administration of pharmaceutical products, psychosocial support, hygiene, comfort, nutrition, socialization and leisure. The estimated duration of stay is from 30 days to 90 days.

5.8 Long-term care

There is very little state provision of community care services in Portugal, including long-term care, day centres and social services for the chronically ill, older people and other groups with special needs, such as people with mental and physical disabilities. There is a traditional reliance on families as the first line of care in Portugal, particularly in rural areas. However, demographic changes, such as an increase in female employment and a breakdown in the extended family due to migration to urban centres, mean that many people are no longer able to rely on such informal care. As in many other European countries, Portugal faces a growing older population and the pressure to provide social as well as medical care is increasing.

The *Misericórdias*, independent charitable organizations, are the key providers of long-term care services. Day centres, nursing homes and residences for the elderly provided 79 291 beds in 1998. Over the last decade, this capacity increased steadily and, according to the Ministry of Labour and Social Solidarity, in 2005, there were almost 120 000 places for older people (Ministry of Labour and Social Solidarity, 2005). They provide a range of services, including activities, meals, food to take home, laundry services, bathing and even assistance obtaining medication and attendance at primary care centres. A small means-tested contribution is usually charged.

Residential care provided in each region by the public sector, funded by the Ministry of Labour and Social Solidarity, is often of poor quality and lacks sufficient resources. Means-tested assistance is available, and social services will pay a proportion of residential costs depending on income. The nursing homes run by *Misericórdias* and other non-profit-making institutions are of better quality and only request a nominal contribution from patients and their families.

Home care is expanding as a result of a joint venture between the Ministry of Health and the Ministry of Labour and Social Solidarity, as part of the Integrated Support Plan for the Elderly. In some regions, an infrastructure to deliver support to the elderly has been developed in partnership with RHAs, municipalities and private providers, such as *Misericórdias*.

As part of this inter-ministerial project, the state is facilitating vocational training opportunities in areas such as domiciliary care and informal health care as part of a job-creation scheme. Currently in the Lisbon and Vale do Tejo region, there are approximately 20–30 local projects to create social care

networks. The division of payment between the NHS and the social security department depends on the type of care provided by the project, for example nursing care or home help. Although there are regulations for nursing homes, these are not evaluated or managed on a regular basis. Nursing homes in the private sector are very expensive and the majority of the population do not have the resources to pay for them.

5.8.1 Recent developments

The RNCCI was created by Decree-Law 101/2006 within the scope of the Ministry of Health and the Ministry of Labour and Social Solidarity due to evidence of a clear lack of resources in long-term and palliative care as a result of an increase in the number of people with incapacitating chronic diseases (see also section 5.9 and section 6.1). This network combines teams providing long-term care, social support and palliative care with its origins in communitarian services, covering hospitals, ACES, local and district social security services, the Solidarity Network and municipalities.

This network provides services in the following areas.

- Convalescence (short-term recovery). This is an independent inpatient section, integrated within an acute hospital or other institution if it is associated with a hospital, to provide treatment and clinical supervision in a continued and intensive manner and to deal with clinical care as a result of an inpatient episode due to an acute clinical situation, recurrence of or imbalance in a chronic condition. Its main function is to stabilize patients in a functional and clinical manner, and to ensure the assessment and integral rehabilitation of patients with a transitory loss of autonomy that is potentially recoverable and that does not need acute hospital care. It assures permanent medical care, permanent nursing care, radiological, laboratorial and complementary diagnosis exams, prescription and administration of pharmaceutical products, physiotherapy, psychosocial support, hygiene, comfort, nutrition, socialization and leisure. The estimated maximum duration of stay is 30 days.
- Medium-term care and rehabilitation (see section 5.7).
- Long-term care. This is a temporary or permanent inpatient service with its own physical space to provide palliative care to people with chronic conditions, with different levels of dependence, who are not cared for at home. It aims to provide care that will prevent and retard increasing dependency, favouring comfort and quality of life for a

period longer than 90 consecutive days. It guarantees maintenance and stimulation activities, daily nursing care, medical care, prescription and administration of pharmaceutical products, psychosocial support, periodic psychiatric assessment, physiotherapy and occupational therapy, sociocultural animation, hygiene, comfort, nutrition and support in activities of daily life.

- Palliative care (see section 5.9).
- Day care and autonomy promotion (see section 5.4.2 *Day care*).

In June 2006, the government defined the prices to be paid for health care and social care provided within the pilot episodes of the newly created network (Article No. 12 of Decree-Law 101/2006, of 6 June 2006). The prices were updated by *Portaria* 189/2008. The costs of health care provision are to be paid by the Ministry of Health, although the patient has to pay the co-payments, yet to be defined, for social care s/he receives. For hospital admission episodes, the convalescence and palliative care units are financed by the NHS. The medium-term and rehabilitation care units are co-financed by the Ministry of Health (70%) and the Ministry of Labour and Social Solidarity (30%), while long-term care is co-financed by the Ministry of Health (20%), the remainder being paid by the Ministry of Labour and Social Solidarity (*Portaria* No. 994/2006, of 19 September 2006).

The units belonging to the network are listed each year in the official journal of the Portuguese Republic (*Despacho* 1408/2008 and *Despacho* 2732/2009). In 2008, there were 2870 beds in the RNCCI (1788 in 2007; see Table 5.1).

Table 5.1

Number of beds in the long-term care network, 2007–2008

	2007	2008
Number of long-term care beds (RNCCI)	1 788	2 870
Rehabilitation and medium-term	646	922
Long-term	684	1 325
Palliative care	55	93

Source: Ministry of Health, 2010.

5.9 Palliative care

The National Programme for Palliative Care was approved by the Ministry of Health in 2004 to be applied within the scope of the NHS. The palliative care organization is still incipient in Portugal, and there are therefore no available data that allow the estimation of unmet needs in this area. However, looking at the data provided by the International Association for Hospice and Palliative Care, in countries where palliative care has developed in recent decades there are approximately 1000 sick people per 1 million inhabitants per year in need of differentiated palliative care. Palliative care is provided to patients suffering intensely due to rapidly progressive incurable diseases in an advanced stage. Its main goal is to promote, as far as possible and until the end, the well-being and quality of life of those patients. These are coordinated services that include family support, provided by teams and specific units of palliative care; they are provided as inpatient or home care, according to differentiated levels. The main goals of palliative care are to ease pain; reduce symptoms; give psychological, spiritual and emotional support to the patient, while always protecting their dignity; and support the family during the process and in grief. These services require the involvement of an interdisciplinary team with differentiated structures. Palliative needs are not determined by disease diagnosis but by the individual situation and patient needs. Thus, rapidly progressive diseases such as cancer, AIDS and severe neurological pathologies frequently require palliative care. The national health institutions that provide palliative care are listed on the web site of the RNCCI (see section 9.4).

The integration of volunteers in the palliative care teams is an important element for the quality of this service. The volunteers, supervised by the technical team, can be a fundamental link between the community, the patient, the family and the health care professionals.

The RNCCI, set up in 2006, is responsible for ensuring provision of palliative care services. These are provided in an inpatient setting, with its own physical space, preferably in a hospital. The network aims to keep track of the treatment and clinical situation of suffering patients in complex situations that are severe, advanced, incurable and progressive, according to the National Plan for Palliative Care standards. It guarantees daily medical care, permanent nursing care, radiological, laboratorial and complementary diagnosis examinations, prescription and administration of pharmaceutical products, physiotherapy

care consultations, guidance and patients' health assessment, psychosocial and spiritual support, maintenance activities, hygiene, comfort, nutrition, socialization and leisure. These services are financed through the NHS.

5.10 Mental health care

Subsequent to Decree-Law 2118 of 1963, which approved the principles of mental health care provision, mental primary care centres were created in 1964 in the different districts as well as in the larger cities: Lisbon, Coimbra and Oporto. At the beginning of the 1970s, the need to integrate mental health services in the general system of health care provision became obvious. As such, in 1984, the Directorate-General for Primary Health Care was created with a Division of Mental Health Services. Later, Decree-Law 127 of 1992 integrated the mental primary care centres into the general hospitals. Considering the recommendations of the United Nations and WHO with respect to the emphasis on community services, it was necessary to change this organization, with a focus on rehabilitation and social integration. Decree-Law 36 of 1998 regulated the organization of services in this sector and created a clear referral system as well as a community care network. In 2006, the Ministry of Health nominated a specialized Commission for the Restructuring and Development of Mental Health Services.[2] By 2007, the Commission published the National Plan for Mental Health Services 2007–2016. The National Plan highlights the advantages of a model of continued and family-oriented mental health care when compared to hospital-based therapy.

The current organization of services is characterized by the following.

- The referral model is that of community care.
- The local mental health services are the basis of the care system, linked to primary care centres and hospitals.
- When local mental health services cannot be established, they are organized regionally.
- The mental health care teams are multidisciplinary, for a population of approximately 80 000.
- Ambulatory services are based in primary care centres, and inpatient admissions and emergencies are treated in hospitals.

[2] The report by the Commission for the Restructuring and Development of Mental Health Services provides an in-depth analysis of the evolution of Mental Health Care in Portugal; the Programme for Mental Health Care is led by Caldas de Almeida.

- Care for children and adolescents is given by specific teams at the local level.
- Social rehabilitation is carried out in conjunction with the state health sector, social security and employment departments.
- Psychiatric hospitals support the local health teams, provide specialized and inpatient care, and provide residential services for patients without any family or social support system.

In summary, mental health care is centred in the local health care services, predominantly in general hospitals, regional services and psychiatric hospitals (where approximately 70% of patients have schizophrenia). To overcome the lack of adequate information, the first morbidity study is now being conducted. A nationwide census in psychiatry was carried out in the health care institutions in 2001. Among the users of mental health care, the most common diagnosis was schizophrenia (3595 patients), followed by depressions, oligophrenia (2268), alcoholic disturbances (1502) and neuroses (1456) (Bento, Carreira & Heitor, 2001). For inpatient care, the most common diagnosis was schizophrenia; for consultations it was depression; and for emergency care it was alcohol-related illnesses. Mental health care for people with schizophrenia in Portugal is similar to that of other European countries. However, there is limited coverage of psychosocial intervention, including rehabilitation (Xavier et al., 2002; Xavier, 2006; Kovess-Masféty, 2006).

5.11 Dental care

The publicly funded oral health care system in Portugal is not comprehensive. There are very few NHS dental care professionals in this sector, so people normally use the private sector (see section 4.2). There has been an increase in financing for dental care projects aimed at school populations (from €3 million in 2004 to €5 million in 2007), which has been associated with an increase in children without tooth decay (from 33% in 2000 to 51% in 2006). Some dentists contract with one or more of the health subsystems. Each scheme defines its own list of eligible treatments and fees. The schemes are usually slow to pay and the fees are low. Those dentists not under contract may provide care to patients covered by the schemes; patients pay directly and are then partially reimbursed by the scheme. Dental hygienists also provide dental care, although this must be carried out under the direction of a dentist. The great majority of dentists are self-employed and their activity is regulated by the OMD.

5.12 Complementary and alternative medicine

Some estimates suggest that in Portugal more than 2 million people regularly seek complementary and alternative medicine (FENAMAN, 2007). At the beginning of 2003 the Parliament passed legislation on the professional practice of techniques approved by WHO: acupuncture, homeopathy, osteopathy, naturopathy, phytotherapy and chiropraxy were specified. This made the practice of these alternative methods legal, and the health authority requires all specialists in these areas to be registered, but the practices are not regulated. In December 2006, another project for regulating alternative medicine was being discussed in the Ministry of Health, regarding the possibility of regulating the above-mentioned six non-conventional therapeutic practices, making Portugal the first European country with such extensive regulatory legislation in this field; but nothing has changed since.

6. Principal health care reforms

In this chapter individual health care reforms, policies and organization changes, some of which may have been discussed earlier, are set within the context of the overall reform programme. It considers major reforms already implemented as well as those that failed or were passed but never implemented. The chapter also provides an overview of future developments.

The recent past has been characterized by the introduction of a number of reform initiatives. There are broadly five different areas of intervention, which have been under the spotlight: health promotion, long-term care, primary and ambulatory care, hospital management and inpatient care, and the pharmaceutical market.

In 2006, the RNCCI for elderly and dependent patients was created. The ACES were created in 2008 to allow for a better use of resources and management structures. Hospital care has been subject to two sorts of reforms. On the one hand, there has been a redefinition of the existing NHS supply of hospital services. On the other hand, changes have been made to the public hospital model, namely to management rules and the payment systems. The final area of reform is in the pharmaceutical market. Interventions have occurred both at the level of regulated prices and margins, and in ownership and entry rules.

Recent years have been rich in the number and scope of reforms initiated. A few have started again, taking a new direction or developing in a new direction (e.g. the primary care reform). Others have been continued under different governments, while some were only recently launched. It is expected that in the near future the system will be characterized mainly by the consolidation of current reforms.

6.1 Analysis of recent reforms

The recent past has been characterized by the introduction of a number of reform initiatives. This section concentrates on the major reforms since 2000. There are broadly five different areas of intervention, which have been under the spotlight: health promotion, long-term care, primary and ambulatory care, hospital management and inpatient care, and the pharmaceutical market. Table 6.1 shows the key policy areas from 2000 to 2009 and their objectives.

Table 6.1
Major policy measures, 2000–2009

Policy measures	Objectives
PPPs for new hospitals (2002 onwards)	Improve efficiency; improve value for money in public investment
National Health Plan (2004)	Health gains (priorities being cardiovascular diseases, oncological diseases and HIV/AIDS)
Preparation of the National Health Plan (2011–2016)	Focus on access, quality, healthy policy and citizenship
Update in co-payments of public health care services (several years)	Moderate the consumption of health care; promote the value of NHS-funded care in the eyes of the citizens
Closure of delivery rooms in several hospitals (2006)	Increase clinical quality and safety; better organization of the hospital network
Merge hospitals management team (2003 onwards)	Increase efficiency (take advantage of scale and scope economies)
Provide hospitals with entrepreneurial-like status (2003 onwards)	Implement purchaser–provider split; cost-containment by better management
Contracting (2005 onwards)	Implement purchaser–provider split; pay by results; cost-containment
Reductions in public cost-sharing for pharmaceutical products, administrative price reductions and reductions of margins in distribution (2005 onwards)	Cost-containment
OTC products (both price and entry liberalization) (2005)	Better access to care; lower prices by increased competition
Closure of several primary care emergency services (in some cases, closure is only during the night period) (2006)	Increase clinical quality and clinical safety; better organization of the emergency care network
Primary care reform – creation of USFs (2006 onwards) and ACES (2008)	Better access; greater satisfaction for professionals and citizens; more rational use of resources, namely regarding referral decisions
Price reduction in agreements with private providers (2006, effective 2007)	Containment of public spending
RNCCI created (2006 onwards)	More effective coverage; better access to care; shorter length of stay in acute care hospitals; health gains due to more efficient treatment

6.1.1 Health promotion reforms

The National Health Plan (2004–2010) provides a road map for public health actions, usually under special programmes, to address general population health concerns. As the main areas for attention, the Plan has chosen cardiovascular diseases, oncology, mental health, health of older people, HIV/AIDS and health promotion, among others. There is a set of specific targets, and responsibility for monitoring progress towards these targets rests with the ACS. The indicators are published on the Internet (ACS–Ministry of Health, 2009).

The new National Health Plan (2011–2016), which is being prepared as of January 2011, aims to continue many of the components of the previous plan, by keeping as values social justice, equity and solidarity; and by maintaining some of the objectives and tools. In addition, the main concepts – access, quality, citizenship and horizontal healthy policies – will be better defined; both the objectives and the instruments will be clearer; and there will be a strengthening of regional planning and involvement.

The new National Health Plan identifies four types of goals: structural, operational, intervention and comprehensive. The structural objectives include:

1. strengthening social and economic security during ill health and unemployment;
2. promoting in society a favourable context to grow and live in safety and to die with dignity;
3. fostering the sustainability of healthy environmental conditions;
4. promoting effective and efficient health care services; and
5. contributing to the realization of Millennium Development Goals.

6.1.2 Long-term care reforms

In 2006, the RNCCI was created. The Law-Decree that created it refers to the "new health and social needs, which require new and diverse answers to meet the expected increase of elderly people with some functional dependence, chronic patients and patients in a terminal stage of a disease without cure". A task force on long-term care was created in the same year to coordinate the RNCCI.

At the inpatient level, the RNCCI designed three types of answer to specific needs: convalescence (or recovery) units, medium-term care and rehabilitation units, and long-term care units. Each type of unit has different objectives and patients are selected according to specific criteria. The resources available and the financing and payment systems are also differentiated among these units.

When the RNCCI was being prepared, the policy-makers forecast that, by 2010, 60% of the target population's needs would be met. If the intermediate goals are accomplished, by 2015 there will be more than 2700 convalescence beds, 3000 medium-term care, 7700 long-term care, 2300 day-care vacancies, and 900 palliative care beds. These beds will be available in both the NHS facilities and private contracted facilities.

There has been an increase in the number of inpatient and outpatient visits in the network. Between 2006 and 2008, there were 19 391 inpatient admissions; from 2008 to 2009, this value increased by 30%. One of the objectives of the RNCCI is to provide health gains to the population, as well as better living conditions. At the same time, NHS hospitals are expected to achieve efficiency gains, by focusing on acute health care delivery (Gonçalves & Miranda, 2010).

6.1.3 Ambulatory care reforms

Ambulatory care is another area that has been subject to reform (and reform proposals). The Task Force for Primary Care was created in 2005 to lead the project of launching, coordinating and monitoring the strategy of redesigning the health care centres and implementing local USFs. According to Campos (2008), in 2006, there were 351 primary care centres, hosting 6169 GPs and providing 27.8 million outpatient visits per year. However, 15% of the enrollees did not have a family doctor (between 700 000 and 750 000). About 33% of the enrollees did not go to the primary care centres, but instead they would go directly to the emergency room departments, hospital outpatient visits or private practice physicians.

The document defining the rules to implement USFs was approved in 2006, but the creation of these units was only possible in 2007, when the incentives, financing and objectives were defined. Their introduction aimed to provide better access, quality and continuity of care, increasing satisfaction of both patients and professionals. Physicians, nurses and health ancillary technicians, provided with organizational, functional and technical independence, compose the teams.

The ACES were created in 2008 to allow for a better use of resources and management structures. ACES are to serve the population of a specific geographic area. The implementation of ACES (maximum of 74), which cover between 50 000 and 200 000 patients, aims to make use of economies of scale and allow the enforcement of regional health policies and strategies (Miguel & Sá, 2010).

Another intervention related to ambulatory care involves the redefinition of the network of emergency services provided by both primary care centres and hospitals. Network redefinition plans proposed the closure of some existing units (as well as opening new ones and changing the type of care provided in others). This redefinition faced strong opposition from local populations and authorities, based on wide media coverage. The increase of co-payments has also faced a negative reception by the public, but overall it has been possible to increase them on a more or less regular basis (see section 3.4).

6.1.4 Inpatient care reforms

Hospital care has been subject to two sorts of reforms. On the one hand, there has been a redefinition of the existing NHS supply of hospital services. On the other hand, changes have been made to the public hospital model, namely to management rules and the payment systems. On the first issue, three high-visibility measures have been taken: the closure of several hospital maternity departments (although obstetric consultations and antenatal care continue to take place at those hospitals), based, according to official documents, on clinical safety criteria; putting two (or more) nearby hospitals under the same management team; and announcement of new hospitals to be built under PPPs.

The closure of child delivery units in several hospitals was decided on the basis of a technical report (Ministry of Health, 2007b). Despite this, many saw the decision as mainly political and it faced strong local opposition. Several appeals on the government's decision to close these services were filed with the civil courts. Decisions by judges have upheld the right of the Ministry of Health to implement its policy.

The merging of hospital management teams occurs gradually over time and faces no open challenge. This reorganizes hospital care within regions.

The third policy focused on the use of PPPs. The Task Force for Health Partnerships was created in 2001. The first public–private partnership contracts included both the construction (30-year contract) and clinical management (10-year contract) of the new hospitals. In 2008, clinical activity was excluded from all the new contracts. The only PPPs truly in effect in Portugal were the call centre *Saúde 24*, the São Brás de Alportel Rehabilitation Centre, the new hospital in Cascais and another one in Braga. The Rehabilitation Centre was evaluated by an external audit team, and results concerning whether PPPs would be advantageous were inconclusive.

The PPPs are a controversial reform in the Portuguese NHS. The bureaucratic part of the PPPs turned out to take longer than expected. The problems with the public–private partnership costs are expected to be overcome through better management of the health care units (see chapter by Barros in Simões, 2009). In their first stage, the Portuguese PPPs had, as their main distinctive feature, the award of two contracts: one for construction and maintenance of infrastructure and the other for clinical activities management. From the initial 10 new hospitals to be built under the PPPs system, the current government decided not to include, in the second phase of construction, the management of clinical activities in a contract (*contrato programa*).

The other line of reform is related to the way the Ministry of Health sets up the payment to the NHS hospitals. The main element of this reform was the change in the status of hospitals, providing them with corporate-like status. The reform was implemented on 1 January 2003 for roughly half of the hospitals, and has been extended to other hospitals over the years. In the first phase, the hospitals were considered to be a public company, with capital provided solely by the government, and were named "*Hospitais SA*". To make it clear that privatization of hospitals was not on the political agenda, they were later changed to public enterprises ("*Hospitais EPE*"). The hospitals that did not go through this transformation process continue to be managed by civil service rules (and are known as "*Hospitais SPA*"). Over time, more hospitals have been transformed from "*SPA*" to "*EPE*" status, including the largest hospitals in the country. The main objective of the reform was to provide autonomy and management accountability to hospital boards. This was part of a general trend towards an effective purchaser–provider split. The next step was the introduction of explicit contracting of services to be provided by hospitals, carried out from 2007 onwards for both "*Hospitais EPE*" and "*Hospitais SPA*".

6.1.5 Pharmaceutical reforms

The final area of reform to be discussed was the pharmaceutical market. Interventions have occurred both at the level of regulated prices and margins, and in ownership and entry rules. Several changes in price and margin regulation have been introduced in recent years: an increase in co-insurance rates by the NHS, administrative reduction of prices (6% both in 2006 and 2007) and administrative reduction of retail margins. The main objective seems to be containment of public expenditure on pharmaceuticals.

On the ownership and entry rules, the government introduced a double liberalization in the OTC market: the existing price ceiling was removed, and entry is now subject to registration and compliance with technical conditions for the sale of OTC products. A major feature of this reform of the OTC market is the loss of exclusive ownership of sales locations by pharmacists. The new locations selling OTC products can be, and are in many cases, owned by non-pharmacists. The motive behind this change was the improvement of accessibility to OTC products and the promotion of a more competitive environment. The effects of this double liberalization have been the subject of a heated debate, although most of the arguments neglect to encompass the fact that a double liberalization occurred, and therefore fail to separate which effects can be attributed to price liberalization and which were caused by entry liberalization. Several reports on the issue have been produced, with conflicting conclusions, and on this reform it can be said, "The jury is still out."

6.1.6 Regulatory reforms

Another major reform in the Portuguese health system was the creation of a new regulatory body, the HRA, in 2003. At the root of the creation of this body was the concern, at the time, about the effect of private management in primary care centres (in the sense that application of the new law governing primary care centre management was made conditional on the existence of such an agency).

In 2009, the role of the HRA was clarified. It now aims to ensure that the requirements of health care delivery are met by providers; to make sure that the criteria for health care access are met; to guarantee patients' rights; and also to guarantee competition among providers. The HRA focuses on three main areas: (1) patients' rights, (2) market failure regulation and (3) regulating the economic interaction between the players in the health care sector.

In terms of patients' rights, the HRA aimed to bring the information to the people, so that the patient is able to choose the best option for him or her; to promote the diffusion of quality of care indicators; and to develop mechanisms to foster communication between citizens and health care providers. On market failure regulation, the HRA identified and fought against unjustified discrimination against patients and inequality in access to health care. Finally, by regulating the economic interaction between the players, the HRA aims to increase competition in the market. Other regulatory activities include the registration of all the institutions that are responsible for or own health care delivery facilities, besides audit and sanctioning.

6.2 Future developments

As described throughout this report, recent years have been rich in the number and scope of reforms initiated. A few have started again, developing in a new direction (e.g. the primary care reform). Others have been continued under different governments, while some were only recently launched. It is expected that in the near future the system will be characterized mainly by the consolidation of current reforms. The main political challenges will come from implementation steps, as some are likely to provoke protests from particular groups (health care professionals, sector associations, patients' associations). At the macro level, the Ministry of Health faces the issue of coping with pressures for higher health care spending in a context of containment of public spending, due to the excessive budget deficit of the Portuguese government.

7. Assessment of the health system

In this chapter, the situation of the Portuguese health system is summarized, based on the information provided in the previous chapters. Recent years have been rich in the number and scope of reforms initiated. A few have started again, developing in a new direction (e.g. the primary care reform). Others have been continued under different governments, while some were only recently launched. It is expected that in the near future the system will be characterized mainly by the consolidation of current reforms.

The main source of funding of the NHS is general taxation. Financial resources directed towards health care have reached a high level relative to the country's wealth. The value of approximately 10% of GDP devoted to health expenditure puts Portugal among the countries with the highest level of health spending within the EU and the OECD. The tradition since the mid 1990s has been one of steady and fast growth in public health expenditure, with private expenditure remaining relatively constant (i.e. growing in line with GDP growth). Human resources in Portugal have been characterized by a higher emphasis than most other countries on specialist hospital care, coupled with a relative scarcity of physicians. More recent years have shown a movement towards corrections of these imbalances. There is clearly room for further efficiency gains in the delivery of health care in Portugal. The role of HTA is currently limited to pharmaceutical products. A more systematic approach to health care financing would be needed to improve value for money in the health system.

7.1 Stated objectives of the health system

The goal of the health system is to protect the health of the population living in Portugal. To achieve this goal, the government may act directly as a provider of health care or contract with private providers. Health policies should promote equality of access to health care for the citizens, irrespective of economic condition and geographic location, and should ensure equity in the distribution of resources and use of health care services (Law 48/90, 24 August 1990, with changes introduced by Law 27/2002, 8 November 2002). The health system is the cornerstone to ensure that the provisions of the Constitution of the Portuguese Republic on rights to health are respected (Article 64).

7.2 Financial protection and equity in financing

The main source of funding is general taxation. It is slightly progressive due to progressive income taxation (indirect taxation is slightly regressive but is compensated by income taxation progressivity; Pereira & Pinto, 1992). OOP payments, on the other hand, introduce a regressive element. Subsystems, although based on income-related contributions, tend to have regressive properties, as more affluent people are more likely to benefit from their coverage.

Nonetheless, OOP payments are one of the most important sources of financing of the Portuguese health care system (around 23% of total health expenditure in 2006). In the recent past, several countries, including Portugal, have tried to increase patients' OOP payments as a means to ensure financial sustainability of the health care system. As this measure is controversial, it is not without its political cost. Patients pay a large share of pharmaceutical expenditure, due to the low co-payment rates, with few exemptions, and the high level of pharmaceutical use in Portugal (Simões, Barros & Pereira, 2007).

7.3 User experience and equity of access to health care

The NHS aims at comprehensive coverage on a universal basis. However, despite this general objective there are several areas where coverage is limited. The most obvious one is dental care, most of which (over 90%) is provided by the private market. In the pharmaceutical market, the "fourth-hurdle" approach (economic evaluation assessment before inclusion in the NHS coverage) also excludes pharmaceuticals from NHS coverage that do not pass this evaluation.

Primary care is being restructured in order to improve quality and accessibility. Still, some barriers to access seem to exist, especially regarding access to a family doctor. This is in fact a major problem, even more so in light of the recent trend towards early retirement among these physicians. The problem will only be solved with the entry into the labour market of a large number of physicians from the new medical schools and the increase in the number of vacancies in all medical schools. The Ministry of Health has also defined a compulsory number of positions in the GP internship.

The major indicator of barriers to accessing health care services is the waiting time for surgical interventions. The median waiting time has been decreasing over the last few years, with a drop from 8.6 to 6.9 months. The reduction in median waiting time has been accompanied by a reduction in the total number of patients on waiting lists (both the total number and the number of patients waiting more than six months) (Ministry of Health, 2007a). This indicates a reduction in barriers to accessing surgical interventions (see section 7.4).

Other access indicators include the proportion of first consultations, measured both at the hospital (25%) and the primary care centre (20.7%) levels. Between 2004 and 2007 the number of first appointments increased by 12.2% and the total number of programmed GP appointments in relation to total appointments increased from 79% to 83%. At the hospital level, first outpatient visits increased from 25.2% to 26% (Campos, 2008).

The existence of a considerable proportion of the population enjoying double coverage (estimated at between 20% and 25%), either through subsystems or through VHI (bought in the private insurance market), suggests that inequalities in access exist. In the absence of any barriers to access, there would be no reason to purchase VHI, and since beneficiaries have to contribute from their own wages, there would be complaints about this payment. Moreover, the extensive use of specialist visits in health subsystems supports this view. Not all VHI necessarily corresponds to a barrier to access. In a well-designed NHS, some instruments must exist to ensure that only necessary care is provided. Some people may see this as a "barrier" and decide to contract VHI as a way to overcome it. Pharmaceutical cost-sharing is an example of this. The NHS may wish to impose cost-sharing to avoid unnecessary consumption, but some groups of the population may wish to cover this cost through extra insurance, which would not, in itself, reflect a barrier to access. However, the existence of barriers to access can also result in people having to resort to VHI, although there is a lack of empirical evidence on this issue. Still, the existence of explicit rationing at several points in the system, as manifested in waiting lists for consultations and surgery, and in the access to several types of expensive

treatment (e.g. biological agents for rheumatic diseases, new cancer drugs), suggests that the more likely reasoning for VHI lies in overcoming access barriers. It should also be recalled that VHI plays a minor role in terms of funding of health care expenditure, in contrast to what might be believed as a result of the number of people that insurance companies claim to cover. The two elements are reconciled by the observation that most cases of coverage provided by VHI are limited in their scope and breadth.

A recent study of patients' satisfaction shows that patients are quite satisfied with outpatient appointments (91.6 % positive or quite positive in 2001 to 92.5% in 2008). The same is the case with inpatient health care (79.5% positive or quite positive in 2001 to 83.6% in 2008). However, the percentage of unhappy emergency room episodes patients increased from 12.1% in 2001 to 15.6% in 2008 (Cabral & Silva, 2009).

7.4 Health outcomes, health service outcomes and quality of care

Currently (March 2011) it is not possible to provide an estimate of improvements in health status that can be attributed to the health system, making a distinction between alternative sources of improvement (health care, public health, lifestyle changes, income, environmental factors, etc.). To the authors' knowledge, there are no studies establishing a causal link (or even a mere association) between health policy or health care interventions and health improvements. Establishing evidence on this issue remains a challenge for health policy-makers and analysts in Portugal. Estimates of amenable mortality from 2006 suggest that Portugal ranks between sixth and seventh out of 27 OECD countries (Joumard, André & Nicq, 2010.)

Quality of care can be measured in many different ways. The focus here is a set of indicators used by the Ministry of Health to assess the evolution of quality of care. Most of these indicators concentrate on hospital care. The ALOS increased from 7.4 days in 2007 to 7.59 in 2009, while the readmission rate (within 30 days) in the same period decreased from 8.62% in 2007 to 8.03% in 2009.

A common measure of quality of care in the Portuguese NHS relates to waiting lists, both waiting time and size of the list. In this respect, the more recent numbers show a decrease for both indicators. Only since 2005 has the Portuguese health system had a central register for people on waiting lists, and therefore data from before its creation are questionable (and have often been the

subject of heated political debate). According to the central register, the number of patients on waiting lists decreased from 248 404 in 2005 to 164 751 in 2009, and the median waiting time for intervention shifted from 8.6 months in 2005 to 3.4 months in 2009.

The OECD collects some internationally comparable quality indicators. Compared to OECD countries, Portugal had a much lower rate of avoidable hospital admissions for chronic obstructive pulmonary diseases and congestive heart failure in 2007, which suggests that these diseases are effectively treated in the ambulatory setting (Joumard, André & Nicq, 2010). However, Portugal has among the highest rates of avoidable hospital admissions for asthma compared to other OECD countries.

7.5 Health system efficiency

7.5.1 Allocative efficiency

Financial resources directed towards health care have reached a high level relative to the country's wealth. The value of approximately 10% of GDP devoted to health expenditure puts Portugal among the countries with the highest level of health spending within the EU and the OECD. However, this effort does not appear to have led to a significant improvement in the population's health. The tradition since the mid 1990s has been one of steady and fast growth in public health expenditure, with private expenditure remaining relatively constant (i.e. growing in line with GDP growth).

There has been a move away from historical-based allocation of funds towards an approach close to needs-based allocation. This was the trend in primary care, but recent years have seen the re-adoption of an historical budget approach. Hospital care, on the other hand, is moving towards a contract-based approach, where an explicit target for "production" and the corresponding payment are spelt out. Whenever the levels of activity define the approximate health care needs of the population, the system moves closer to a needs-based approach.

Human resources in Portugal have been characterized by a higher emphasis than most other countries on specialist hospital care, coupled with a relative scarcity of physicians and low productivity. More recent years have shown a movement towards correction of these imbalances. In particular, an increase in the ratio of GPs over specialists in hospitals, as well as an increase in the ratio of nurses to doctors, at national level, is observed. Some of these changes

have been the result of government policy regarding vacancies for training for different specialties in NHS institutions. However, the shortage of physicians became more patent with the early retirement of many physicians, fostered by the civil servants' retirement plan reform.

It is also the case that consultations have increased faster than emergency department episodes, which, given the high proportion (by international standards) of the latter, probably constitutes an improvement in the allocation of resources. Portugal has about 100% more use of emergency departments than in England (accident and emergency units) and about 50% more than in France.

7.5.2 Technical efficiency

The recent evolution of the Portuguese health system suggests that improvements have been made in terms of providing value for money. In particular, health gains and increased activity in the NHS were obtained without extra resources, indicating both an improvement in value for money provided and that large inefficiencies were (and still are) present in the system. Increases in productivity, measured by a higher growth in activity than in expenditure, have been present over recent years, although usually at the cost of continuous growth in spending – a situation that has been contained since 2006. Of course, this type of evolution has natural limitations, and in the near future productivity gains will most likely entail a resumption of increases in spending (as opportunities for waste reduction become exhausted).

There is clearly room for further efficiency gains in the delivery of health care in Portugal. The role of HTA is currently limited to pharmaceutical products. In order to ensure that good value for money is obtained in health care provision, a more systematic approach will have to be taken.

Technical efficiency is to be further enhanced by the changes in the payment mechanisms set for providers, even within the NHS. Performance-related pay is currently being implemented in primary care (for the USFs) and prospective budgets (*contratos programa*) are being used for hospital care. For the former, an *ex ante* assessment suggests that some minor cost gains are expected, while for the latter the (unpublished) report produced by an independent commission indicates that cost gains in the range of 8% were obtained (at no cost for quality indicators) (Comissão de Avaliação dos Hospitais SA, unpublished report, 2006). In both cases, the way providers are paid seems to have some bearing on their efficiency level. More recent studies, not yet published, find evidence in the opposite direction, that is, that firm-type hospitals have increased costs more than administrative sector hospitals.

8. Conclusions

The Portuguese health system has been under the political spotlight for several years. Since the early 1990s, there has been a considerable increase in total expenditure on health care, driven mainly by the growth of public health care spending. Despite improvements in the health of the population, a growing concern about spending levels and an increasing awareness that a fair amount of waste in terms of utilization of resources exists have motivated many policy measures.

All policy measures that have been adopted constitute attempts to improve the current health system. No radical change has been proposed by the successive governments, or by the parties represented in the Parliament. Of course, some of the policy measures aim at more ambitious goals than others. Some aim at long-term impact, while others focus on short-term effects.

Although costs have been an important driver for some of the government interventions, other measures have actually been taken without a careful and detailed analysis of cost implications. There is no broad area in the health system that has seen no change at all: primary care, hospital care, long-term care, the pharmaceutical market, PPPs, regulation, human resources, and new investments in capacity have all been affected, to a different extent, by recent policy measures.

In terms of the health of the population, the National Health Plan is a major landmark, as a guide for public action aimed at obtaining health gains for the population. The National Health Plan covers the period 2004–2010 and implementation is well under way, with the next Plan covering the period 2011–2016 is being developed.

Four years after the design of the National Health Plan 2004–2010, the Ministry of Health and WHO began the process of auditing and evaluating the progress of the National Health Plan. This work led to recommendations for the process of developing the new National Health Plan 2011–2016:

- strategic use of the support gained because of the National Health Plan 2004–2010, aiming at obtaining health gains;
- balance between objectives, priorities and measurable goals to strengthen the health system;
- planning on the areas of health inequalities, sustainability of the NHS, human resources, quality and equity;
- reinforcing the ability of RHAs to deal with local authorities, as well as regional-level health care planning; and
- strengthening of the relations between ministries, as well as of the ability to evaluate the health impact of government policies.

The National Health Plan 2011–2016 aims to define itself as the continuation of the 2004–2010 Plan, by:

- keeping the same values as the previous National Health Plan: social justice, universality, equity, solidarity;
- giving continuity to some of the goals and programmes, as well as monitoring outcomes;
- identifying structural axes on which to focus: access, quality, citizenship, healthy policies across ministries;
- specifying the instruments and implementation mechanisms and careful monitoring of the Plan; and
- developing partnerships with the RHAs, giving further importance to the planning and regional implementation of the National Health Plan 2011–2016.

Primary care was subject to a major change, with the ongoing implementation of USFs and multidisciplinary teams formed voluntarily, aiming at providing better care to the population. The two basic elements underlying this reform are proximity to the population and a performance-based remuneration system. The policy measures are too recent to enable an evaluation, although *ex ante* assessments suggest that cost savings will be marginal. Accordingly, any evaluation of future success (or failure) must be assessed in terms of the

health of the population and access to care. The initial reform impetus has been somewhat halted. The governance of the primary care reform has changed, and further changes from traditional primary care centres to the new USFs have proved to be more difficult over time (those most enthusiastic about the change were naturally the first to present their application for the new USFs). The current challenge is how to keep up momentum and bring the USFs to the full population.

Since the mid 1990s, hospital care has also received attention from policy-makers. A general movement towards performance-based payments and explicit contracting within the public sector is very clear. A major impetus for this movement can be traced back to the 2002 set of policies. Even if some gains, in terms of cost savings, have been achieved, this did not change the overall trend of increased hospital spending. As for professionals, the number of hospital nurses has continued to grow and the number of physicians has stabilized in recent years. Pressures for building new hospitals and for new equipment are likely to remain. The main challenges in this area are reducing the waste of resources without harming quality of care, and redefining hospitals' role in the health system in line with recent developments in primary care and in long-term care. Hospital expenditure seems to be evolving rapidly as news of growing debts of hospitals to the pharmaceutical industry have been reported. This resumes a trend of a decade ago towards hidden deficits that had appeared to be absent in the past five years. Pharmaceutical innovation has been pointed to as the main reason, although no clear account of the causes of such debts exists at this point in time.

Traditionally, long-term care has seen little public sector involvement. Policy measures since 2005 were designed to change this picture. Taking advantage of existing institutions, many of them non-profit-making and private, the continuing development of the RNCCI is envisaged. It aims at giving an integrated answer to the population's needs, as well as reducing costly acute hospital care episodes and admissions by substituting care that costs less and is closer to the community.

The pharmaceutical sector was also a target for several measures, aiming primarily at cost-containment. While it is true that generics have increased their market share, pharmaceutical consumption has, to a large extent, kept its historical pace of growth. This motivated harsher measures, such as the reduction of prices decreed administratively and ceilings on pharmaceutical expenditure funded by the NHS. In addition, the several measures adopted have

implied a shift in the financial burden from the NHS to patients. This appears to be reversed in 2009, with NHS payments for pharmaceuticals growing at a faster pace than the overall pharmaceutical market.

Human resources policies have to deal with three main issues: an imbalance between hospital care and primary care, an imbalance between nurses and physicians, and the imminent retirement of health care professionals, whose replacement has been limited by the severely restricted admissions to medical schools in recent years. Correcting these imbalances will take time and progress will have to be monitored. The other main change that has taken place within the NHS is the introduction of individual labour contracts, which are deemed essential for rewarding the performance of professionals.

Other policies, such as PPPs and regulation by the HRA, have so far produced few results (but much "noise"). The clarification of their role remains an issue. The first year of the two initial hospital PPPs passed with no major public turmoil, despite permanent ongoing discussion between the parties about interpretation of the contract.

For many of the reforms, the two main points to be considered are: (a) they mostly aim at improving efficiency of the health system, namely public provision; and (b) the jury is still out as to their effects, as they are too recent for a fair appraisal to be made. The legal changes that have occurred have not yet materialized in changes in the health system. As has happened in the past, there is the risk that many of them may not translate into actual changes, and that unanticipated effects may emerge. This may be true for long-term care in particular. Although an initial increase in costs may occur, it is expected that the substitution of acute care beds by recovery beds and palliative care introduced into the long-term care network will help to drive down cost increases. Could resistance to reducing hospital beds undermine this objective? There is no clear answer at the moment. Similar observations can also be made with regard to primary care changes. For most of the ongoing reforms, the jury is still out, as mentioned above. Challenges remain, namely in implementation. Nonetheless, a better health system and improved health for the population are potential gains.

9. Appendices

9.1 Prospective analysis of Portuguese health status

Having presented the retrospective evolution of the Portuguese demography and health status in Chapter 1, this section presents a prospective approach. Using OECD 2009 data, we forecast the evolution of the overall health status of the Portuguese population over the next decade. We also suggest what could be the impact of more effective health policies. We focus on three important aspects of the overall health status: life expectancy, potential years of life lost (PYLL) and mortality rates.

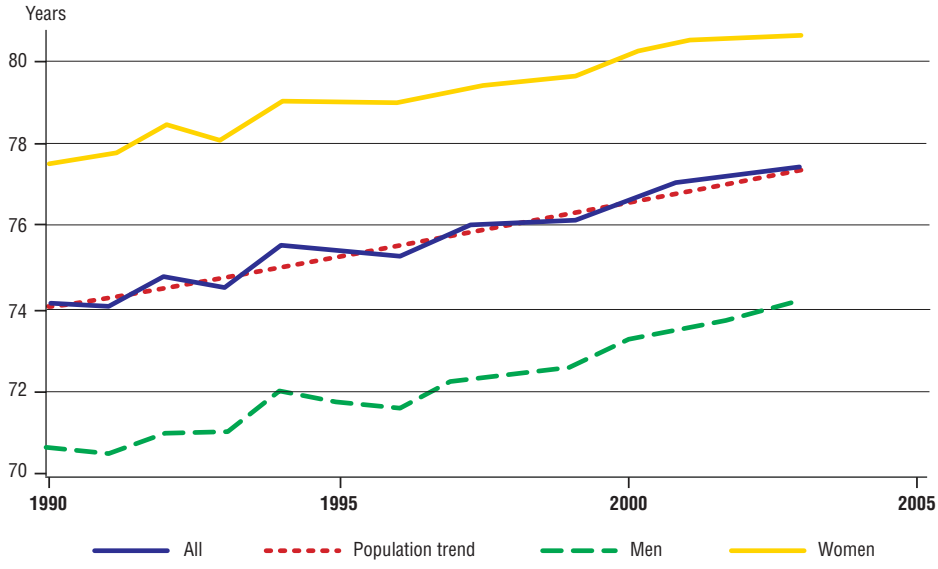
9.1.1 Life expectancy

Life expectancy at birth measures the number of years a given person born in a given year could expect to live. The Portuguese population's life expectancy has increased much over the last decades (see Fig. 9.1). Since 1990, life expectancy at birth increased from 74.1 years to 77.4 in 2003 (OECD, 2010). For Portuguese women, life expectancy in 2003 was higher than 80 years old.

Using this data, we can forecast what could happen over the next decades, and check what would be the Portuguese life expectancy if nothing happened to change the trend line (see Fig. 9.1). In Fig. 9.2, we can see that if nothing affects this trend, a Portuguese born in 2030 can expect to live 84.9 years.

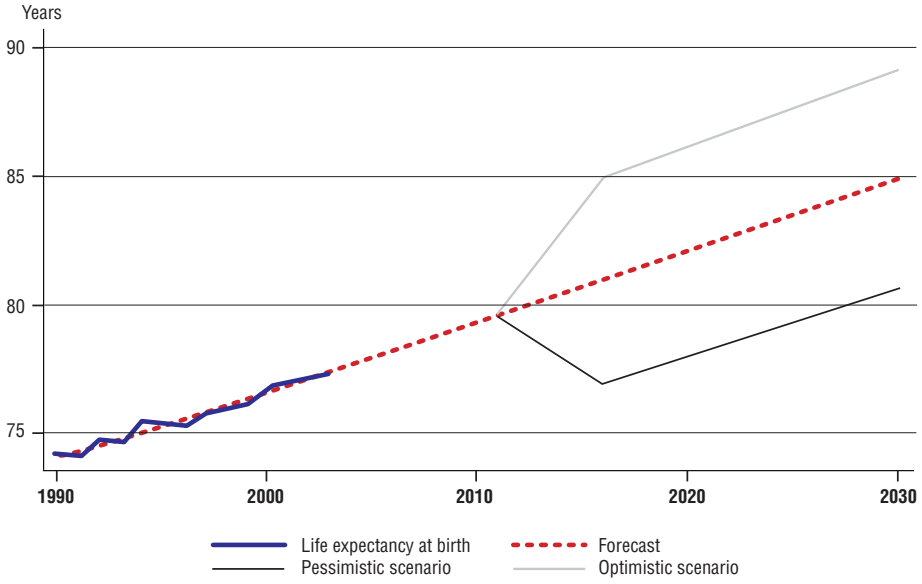
One could ask what could be the impact of health policy on the overall health status of the population. The National Health Plan aims to improve the overall health status of the population, through common health policy guidelines, together with more specific targets in the health care system. Between 2004 and 2010, Portuguese health policy was guided by the National Health Plan 2004–2010, which was commonly perceived as not being very successful in accomplishing health gains. What would be the impact on life expectancy of a successful National Health Plan 2011–2016? Suppose the National Health

Fig. 9.1
Life expectancy at birth, 1990–2003



Source: OECD, 2009.

Fig. 9.2
Life expectancy at birth – forecast, 1990–2030



Source: OECD, 2009.

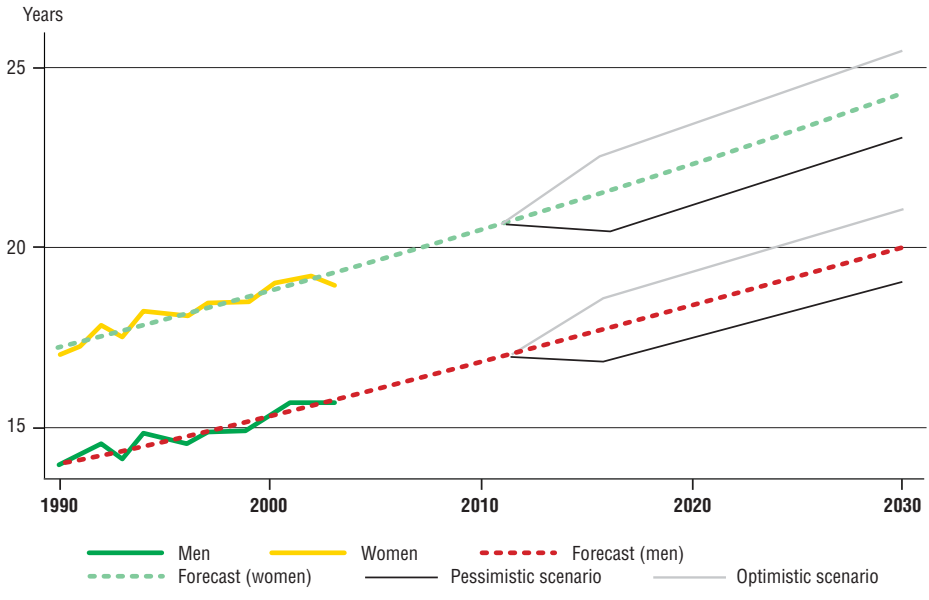
Plan manages to increase life expectancy by 5%; then if no further health policy implementation changes the new trend, a Portuguese citizen born in 2030 can expect to live for 89.2 years, instead of 84.9. (In 2007, the best EU15 life expectancy at birth was 81.0 years, in France, Spain and Sweden. Female life expectancy in Spain was already 84.3, whereas male life expectancy was 77.8 years.) The same type of analysis was carried out regarding life expectancy at age 65 (Fig. 9.3).

In 1990, a 65-year-old Portuguese man could expect to live for another 14 years. By 2003, this value had risen to 15.7 years, and the linear forecast for 2030 indicates a life expectancy at 65 of 20.1 years, that is, on average, a 65-year-old man could expect to live until he is 85. The same type of evolution occurs for 65-year-old women. (In Spain, in 2007, a 65-year-old male could expect to live for another 17.8 years, and a woman's life expectancy at 65 was 22 years.)

A successful NHS could lead to health gains in terms of life expectancy at 65. If we carry out the same thought experiment as before, then a 5% increase in life expectancy at 65 by 2016 would lead to an additional year in life expectancy at 65, for both men and women.

Fig. 9.3

Life expectancy at age 65 – forecast, 1990–2030

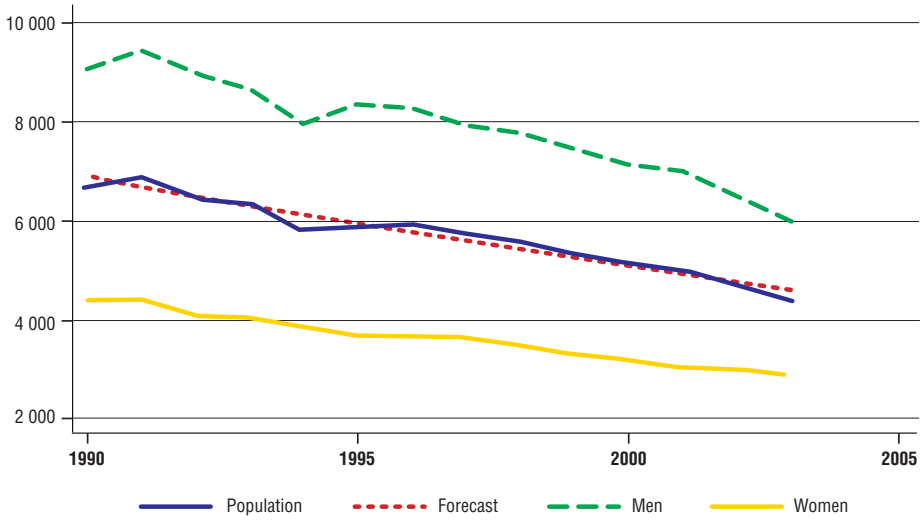


Source: OECD, 2009.

9.1.2 Potential years of life lost (PYLL)

Another way to measure health gains is the PYLL. This is a statistical refinement beyond the simpler count of the number of deaths. The calculation for PYLL involves adding up deaths occurring at each age and multiplying this with the number of remaining years to live until a selected age limit. The limit of 70 years has been chosen for the calculations in OECD Health Data. Portuguese PYLL per 100 000 inhabitants are shown in Fig. 9.4.

Fig. 9.4
PYLL, 1990–2003

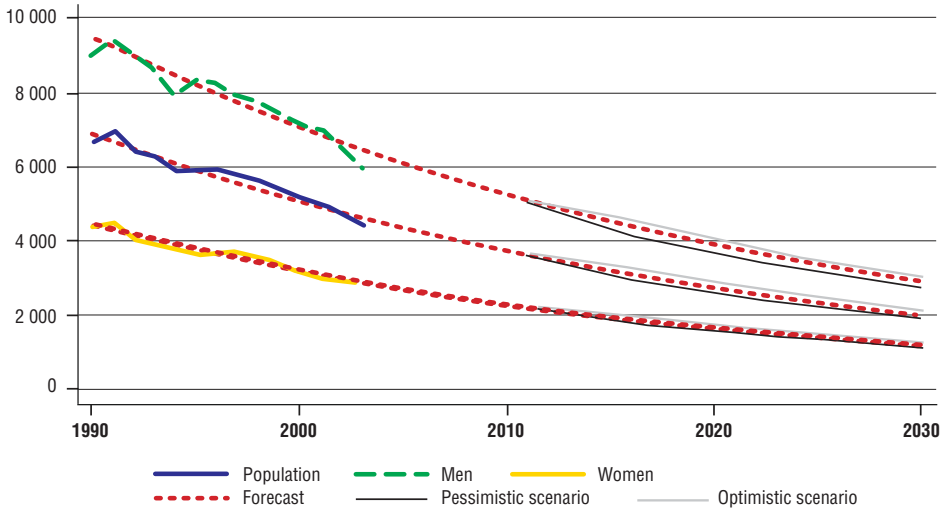


Source: OECD, 2009.

In 1990, the number of PYLL per 100 000 inhabitants summed up to 6679. When we compare men and women, men show a much higher proportion of PYLL (9064 versus 4399). The forecast points to a large decrease over time (by 2010 – population: 3618; men: 5234; women: 2273).

We focus once again on the scenario of facing health gains resulting from a direct health policy intervention, the National Health Plan. If the National Health Plan 2011–2016 is able to achieve large health gains in the avoidable causes of death, we can estimate what would be the decrease in the PYLL by 2030 (Fig. 9.5).

Fig. 9.5
PYLL – forecast, 1990–2030



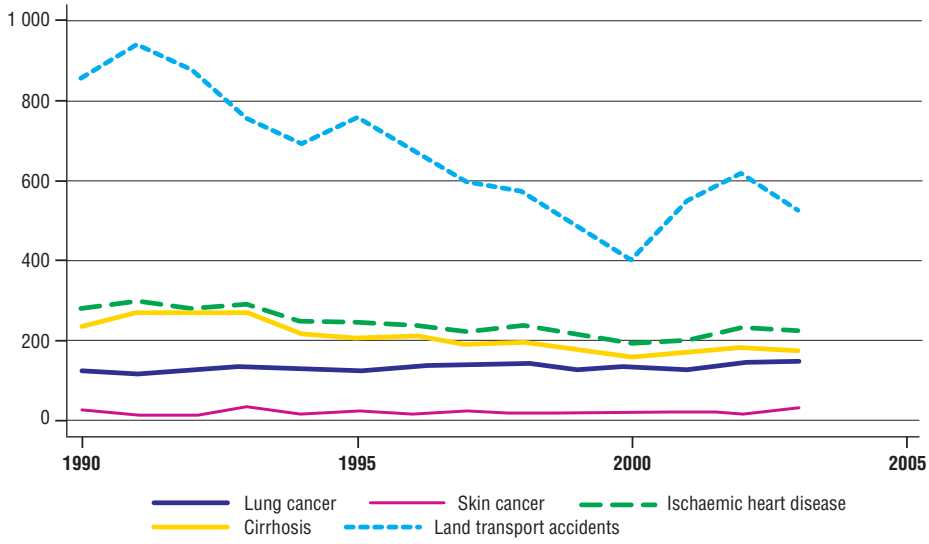
Source: OECD, 2009.

The PYLL per 100 000 population could attain a minimum of 1912 years by 2030, 100 years less than the predicted value. This seems to be a reasonable value, given that in 2006 the best EU15 country (Sweden) presented 2610 PYLL. The level for women could be as low as 1104 (compared to a forecast of 1162 years), whereas for men the number would decrease to 2738 (versus 2883; Sweden's level in 2006: 3191).

The ratio of PYLL per 100 000 inhabitants includes all causes of death. However, there could be a way to tackle specific causes of death, and concentrate the efforts on decreasing premature mortality. As an example, health policy could aim to increase the health gains in some indicators that are known to be sensitive to health care promotion. Primary prevention would help prevent malignant neoplasms (lung, trachea and bronchus), ischaemic heart disease, cirrhosis and road traffic accidents. Malignant neoplasms of the skin are usually taken to be avoidable by health care delivery. The evolution of malignant neoplasms (lung and skin), ischaemic heart disease, cirrhosis and road traffic accidents is shown in Fig. 9.6.

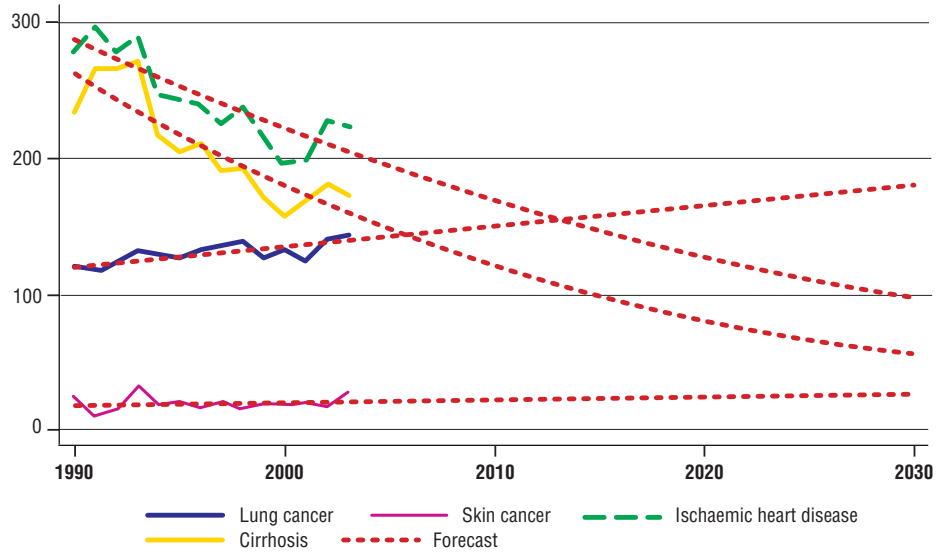
As we can see, much has been achieved in reducing PYLL due to land transport accidents. However, other causes of death seem to have stabilized or even to be growing (Fig. 9.7). What can we say about the next decades?

Fig. 9.6
PYLL – health care promotion, 1990–2003



Source: OECD, 2009.

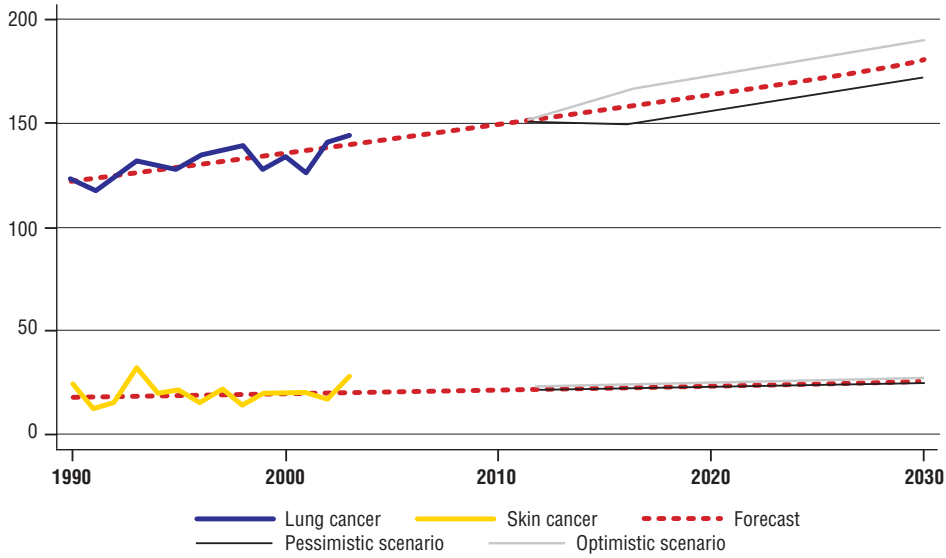
Fig. 9.7
PYLL – selected causes, forecast, 1990–2030



Source: OECD, 2009.

Lung and skin cancer raise concerns as causes of death, given their increasing trend. If the National Health Plan 2011–2016 is able to achieve 5% health gains in these two causes, the values could be as low as 172 (lung, instead of 181) and 25 (skin, instead of 26) PYLL per 100 000 inhabitants (Fig. 9.8).

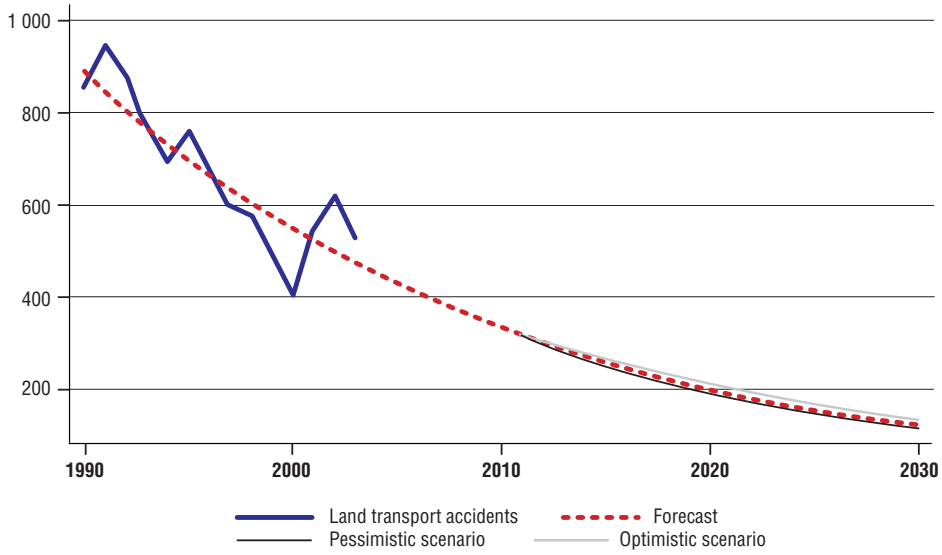
Fig. 9.8
PYLL – scenarios, 1990–2030



Source: OECD, 2009.

As for land transport accidents, further policies aiming to reduce this type of mortality could lead to a minimum of 118 PYLL per 100 000 inhabitants by 2030, which represents a decrease of 7 years per 100 000 inhabitants when compared to the simple forecast (Fig. 9.9).

Fig. 9.9
PYLL – land transport accidents, 1990–2030



Source: OECD, 2009.

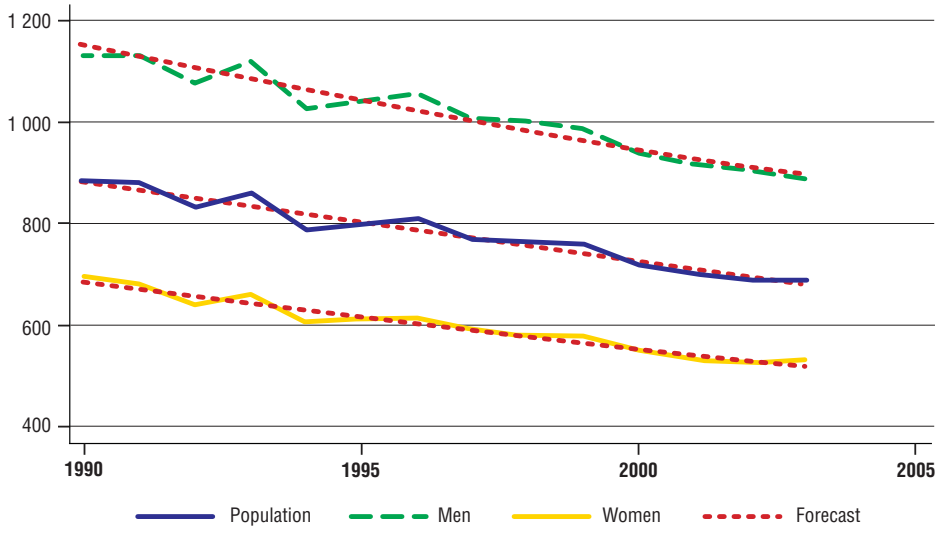
9.1.3 Standardized death rates

The third variable to look at is the standardized death rate (SDR). Fig. 9.10 shows the evolution of this indicator since 1990. The decreasing trend in the SDR is higher in the male population.

The top three SDR causes of death are cerebrovascular disease, ischaemic heart disease and neoplasms. Fig. 9.11 shows the forecast for the evolution of these variables, without any policy intervention. Cerebrovascular disease SDR tends to decrease to the level of ischaemic heart disease SDR. Neoplasms SDR show an almost flat trend.

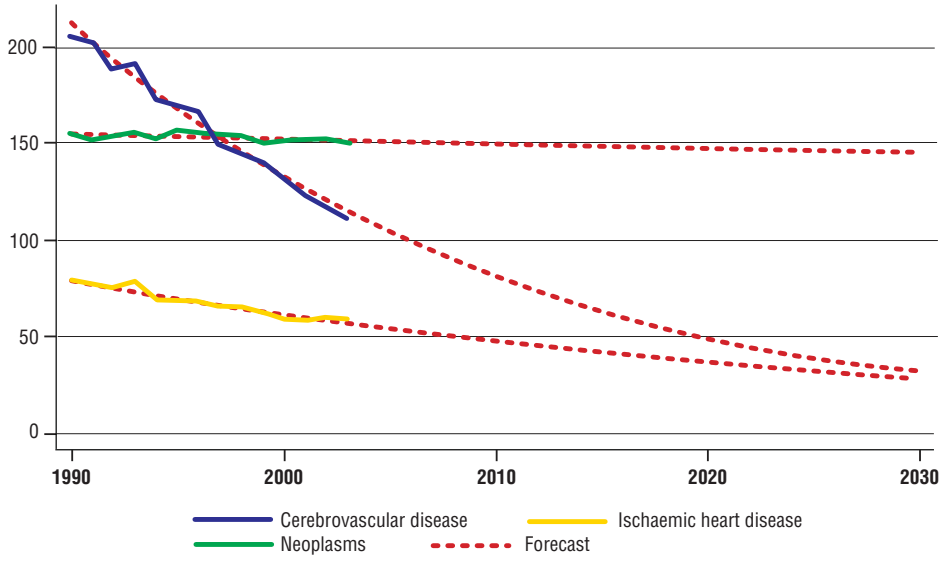
Fig. 9.12 shows the evolution and possible scenarios on the SDR of lung and skin neoplasms. If the National Health Plan 2011–2016 is able to have a negative 5% impact in the lung and skin neoplasms SDR, then by 2030, we can predict that the skin neoplasm SDR could be as low as 8.6 per 100 000 population, and lung neoplasm SDR could decrease to 26.1 (versus a predicted value of 27.4; in 2007, Finland had a similar SDR, 25.6).

Fig. 9.10
SDR – per 100 000 population, 1990–2003



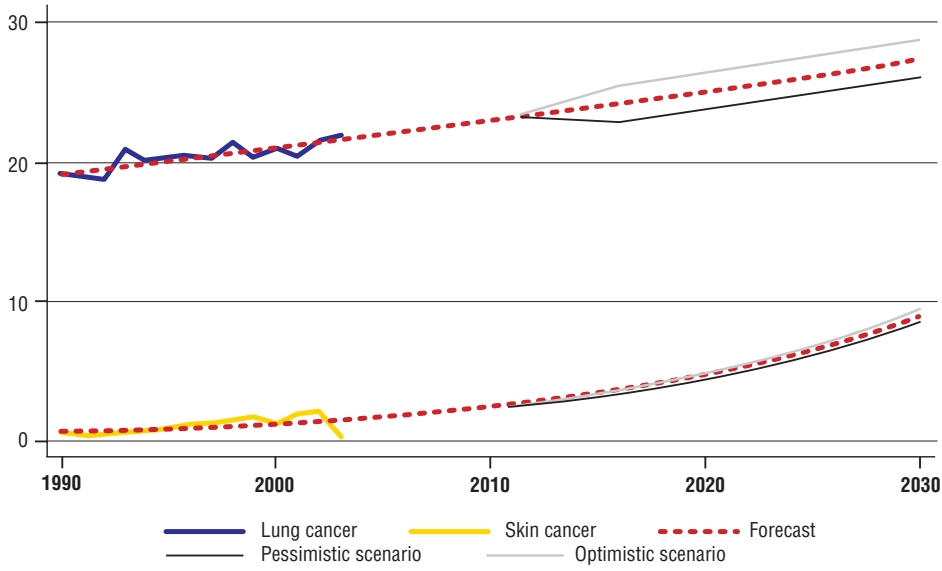
Source: OECD, 2009.

Fig. 9.11
SDR – selected causes, forecast, 1990–2030



Source: OECD, 2009.

Fig. 9.12
SDR – scenarios, 1990–2030



Source: OECD, 2009.

9.2 References

ACS–Ministry of Health (2009) [web site]. WebSIG – mapas interactivos: indicadores [WebSIG – interactive maps: indicators]. Lisbon, High Commissariat for Health, Ministry of Health (http://www.acs.min-saude.pt/dis/2010/03/11/websig-mapas-interactivos/, accessed 15 June 2011).

Barros P (2005). *Economia da saúde – conceitos e comportamentos [Health economics – concepts and behaviour]*. Coimbra, Livraria Almedina.

Barros P, Simões J (2007). Portugal: health system review. *Health Systems in Transition*, 9(5):1–140.

Barros P, Nunes L (2010). The impact of pharmaceutical policy measures: a structural-break approach. *Social Science & Medicine*, 71(3):440–450.

Barros P, Pereira I (2009). *Health care and health outcomes of migrants: evidence from Portugal*. New York, United Nations Development Programme (Human Development Research Paper 2009/28).

Bentes M et al. (2004). *Health care systems in transition: Portugal*. Copenhagen, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies.

Bento A, Carreira M, Heitor M (2001). *Censo psiquiátrico de 2001. Síntese dos resultados preliminares [Mental health census of 2001 – preliminary report]*. Lisbon, Directorate-General of Health (http://www.dgs.pt/, accessed 19 May 2011).

Cabral M, Silva P (2009). *The Portuguese and the NHS today: access, evaluation and attitudes of the Portuguese population towards health and the NHS*. Lisbon, Instituto de Ciências Sociais.

Campos A (2008). *Reformas da saúde – o fio condutor [Health care reforms – the logic behind them]*. Coimbra, Almedina.

Cardoso C (2006). *Tomografia por emissão de positrões – tecnologia e avaliação económica [PET – technology and economic evaluation]*. Lisbon, Universidade Católica Portuguesa Editora.

CIA (2011). *The World Factbook*. Washington, DC, Central Intelligence Agency (https://www.cia.gov/library/publications/the-world-factbook/, accessed 15 June 2011).

Comissão de Avaliação dos Hospitais SA (2006). *Resultados da avaliação dos hospitais sa, sintese dos resultados [Results from the assessment on the creation of enterprise hospitals]* (unpublished report, 16 January 2006).

Court of Auditors (2003). *Relatório de auditoria no. 10/2003 [Auditing report no. 10/2003]*. Lisbon, Court of Auditors.

Court of Auditors (2005). *Relatório de auditoria no. 21/2005 [Auditing report no. 21/2005]*. Lisbon, Court of Auditors.

Court of Auditors (2006). *Relatório de auditoria no. 20/2006 [Auditing report no. 20/2006]*. Lisbon, Court of Auditors.

Court of Auditors (2007). *Relatório de auditoria no. 5/2007 [Auditing report no. 5/2007]*. Lisbon, Court of Auditors.

Court of Auditors (2009). *Relatório de auditoria no. 15/2009 [Auditing report no. 15/2009]*. Lisbon, Court of Auditors.

DGH (2002). *Ganhos de saúde em Portugal [Health gains in Portugal]*. Lisbon, Directorate-General of Health (Report from the High Commissioner and Director-General for Health).

DGH (2004). *Plano Nacional de Saúde 2004–2010 [National Health Plan 2004–2010]*, vols I and II. Lisbon, Directorate-General of Health (English version available http://www.dgs.pt/upload/membro.id/ficheiros/i006666.pdf, accessed 10 January 2011).

DGH (2005). *Guia do utente do Serviço Nacional de Saúde [Guidelines for NHS users]*. Lisbon, Directorate-General of Health.

DGH–Ministry of Health (2009). *National Health Plan indicators*. Lisbon, Directorate-General of Health.

Dias CM et al. (2008). *A saúde dos imigrantes – Inquérito Nacional de Saúde 2005/2006 [The health of immigrants – National Health Survey 2005/2006]*. Lisbon, Department of Epidemiology, National Institute of Health Dr Ricardo Jorge.

Dias SF, Severo M, Barros H (2008). Determinants of health care utilization by immigrants in Portugal. *BMC Health Services Research*, 8(207).

Dixon A, Mossialos E (2000). Has the Portuguese NHS achieved its objectives of equity and efficiency? *International Social Security Review*, 53:49–78.

ERS (2007). *Estudo sobre o processo de licenciamento de prestadores de cuidados de saúde [Analysis on the health care provider's licensing process]*. Oporto, Health Regulatory Agency.

ERS (2010). *Estudo sobre os conceitos de "serviço de urgência" e "serviço de atendimento permanente" em estabelecimentos prestadores de cuidados de saúde não públicos [Report on emergency room departments in health care providers not belonging to the NHS]*. Oporto, Health Regulatory Agency.

European Commission (2002). *Key figures on health*. Luxembourg, Office for Official Publications of the European Communities, European Commission.

FENAMAN [National Federation of Medicine Associations] (2007). Medicinas alternativas – a escolha vai aumentar [Alternative medicine – options will increase]. *Revista Farmácia Distribuição*, 1 February:5–9.

Ferreira PL, Raposo V, Godinho P (2005). *A voz dos utilizadores dos centros de saúde [The opinion of primary care centre users]*. Lisbon, Institute for Health Quality.

Fonseca ML et al. (2007). Saúde e integração dos imigrantes em Portugal: uma perspectiva geográfica e política [Health and integration of migrants in Portugal: a geopolitical perspective]. *Revista Migrações*, 1:27–52.

Gonçalves S, Miranda A (2010). *Análise especializada – ordenamento do território e saúde [Studies for the National Health Plan 2011–2016 – Planning and health]*. Lisbon, High Commissariat for Health (http://www.acs.min-saude.pt/pns2011-2016/files/2010/07/OT1.pdf, accessed 10 January 2011).

Gouveia M et al. (2006). *Análise dos custos dos centros de saúde e do regime remuneratório experimental [Analysis on the costs of primary care centres and experimental remuneratory regime]*. Lisbon, Primary Care Task Force (http://www.portaldasaude.pt/NR/rdonlyres/4B0B71BD-1620-4168-BB98-60134AB16A49/0/Relat%C3%B3rioAPESRRE.pdf, accessed 19 May 2011).

Government of the Republic of Portugal (2009). *PEC – Programa de Estabilidade e Crescimento [Stability and growth programme]*. Lisbon, Ministry of Finance.

Health Portal (2011a) [web site]. Lisbon, Ministry of Health (www.portaldasaude.pt, accessed 10 January 2011).

Health Portal (2011b) [web site]. Convenções com hospitais privados [Agreements with private hospitals]. Lisbon, Ministry of Health (www.portaldasaude.pt/portal/conteudos/informacoes+uteis/lista+de+inscritos+para+cirurgia/convencoes+privados.htm, accessed 10 January 2011).

INE (2001). *Census*. Lisbon, National Statistics Institute.

INE (2004). *Anuário estatístico Portugal [Portugal's annual statistics review, 2004]*. Lisbon, National Statistics Institute.

INE (2005). *Estatísticas da saúde 2005 [Health-related statistics, 2005]*. Lisbon, National Statistics Institute.

INE (2007). *Estimativas de população residente, Portugal, NUTS II, NUTS III e municípios [Estimates for the population living in Portugal by geographical unit]*. Lisbon, National Statistics Institute.

INE (2009a). *Estatísticas demográficas [Demographic statistics]*. Lisbon, National Statistics Institute (available at Pordata).

INE (2009b). *Estatísticas de nados-vidos [Live births statistics]*. Lisbon, National Statistics Institute (available at Pordata).

INE (2009c). *Estatísticas de óbitos [Deaths statistics]*. Lisbon, National Statistics Institute (available at Pordata).

INE (2009d). *Estatísticas do pessoal de saúde [Health care personnel]*. Lisbon, National Statistics Institute (available at Pordata).

INE (2009e). *Estimativas anuais da população residente [Annual estimates of resident population]*. Lisbon, National Statistics Institute (available at Pordata).

INE (2009f). *Inquérito aos hospitais e centros de saúde [Survey on hospitals and primary care centres]*. Lisbon, National Statistics Institute (available at Pordata).

INE (2009g). *Óbitos por causa de morte [Deaths by death cause]*. Lisbon, National Statistics Institute (available at Pordata).

INE (2009h). *Projecções da população residente em Portugal 2008–2060 [Projections on population in Portugal for 2008–2060]*. Lisbon, National Statistics Institute.

INE (2010). *Conta satélite da saúde [National health accounts]*. Lisbon, National Statistics Institute.

INE/SEF-MAI (2009). *População estrangeira residente [Legal immigrant population]*. Lisbon, National Statistics Institute and Ministry of Internal Affairs (available at Pordata).

INFARMED (1998). *Orientações metodológicas para estudos de avaliação económica de medicamentos [Guidelines for pharmaceutical economic evaluation]*. Lisbon, National Authority of Medicines and Health Products.

INFARMED (2010). *Mercado de medicamentos genéricos [The market for generics]*. Lisbon, National Authority of Medicines and Health Products.

INSA (2007). *4th National Health Survey – 2005/2006*. Lisbon, National Institute of Health Dr Ricardo Jorge.

Instituto de Seguros de Portugal (2009). *Estatísticas de Seguros 2008 [Insurance Statistics 2008]*. Lisbon, Portuguese Insurance Institute.

Joumard I, André C, Nicq C (2010). *Health care systems: efficiency and institutions*. Paris, Organisation for Economic Co-operation and Development (OECD Economics Department Working Papers, No. 769).

Kovess-Masféty V et al. (2006). Needs for care among patients with schizophrenia in six European countries: a one-year follow-up study. *Clinical Practice and Epidemiology in Mental Health*, 2:22.

Mateus C (in press). Portugal. In: *DRGs in Europe – results from the EuroDRG Project*. Brussels, European Health Management Association.

Miguel L, Sá A (2010). *Análise especializada – cuidados de saúde primários [Studies for the National Health Plan 2011–2016 – Primary Health Care]*. Lisbon, High Commissariat for Health (http://www.acs.min-saude.pt/pns2011-2016/files/2010/08/CSP1.pdf, accessed 10 January 2011).

Ministry of Finance, Ministry of Internal Affairs (2000–2008). *Conta geral do estado [General government account]*. Lisbon, Ministry of Finance, Directorate-General for Budget (available at Pordata).

Ministry of Health (1998). *Carta dos equipamentos da saúde [Health equipment chart]*. Lisbon, Ministry of Health.

Ministry of Health (2000). *3o inquérito nacional de saúde (1998/99) [3rd national health interview survey (1998/99)]*. Lisbon, National Health Observatory, National Institute of Health Dr Ricardo Jorge.

Ministry of Health (2007a). *Indicadores de desempenho SNS 2004–2006 [NHS statistical performance report 2004–2006]*. Lisbon, Ministry of Health.

Ministry of Health (2007b). *Relatório final da comissão técnica de apoio ao processo de requalificação das urgências [Report on the process of reorganizing emergency room services]*. Report of the Commission on Emergency Room Services to the Ministry of Health (January). Lisbon, Ministry of Health.

Ministry of Health (2007c). *Response from Portugal to the commission consultation on community action on health services*. Lisbon, Ministry of Health (http://ec.europa.eu/health/ph_overview/co_operation/mobility/docs/health_services_ co276.pdf, accessed 23 June 2007).

Ministry of Health (2009). *Estratégia nacional para a qualidade na saúde [National strategy for quality in health]*. Lisbon, Ministry of Health (http://www.portugal.gov.pt/pt/GC17/Governo/Ministerios/MS/Documentos/Pages/20090624_MS_Doc_Estrategia_Qualidade.aspx, accessed 7 June 2011).

Ministry of Health (2010). *Indicadores de desempenho [Performance indicators]*. Lisbon, Ministry of Health.

Ministry of Health, Ministry of Labour and Social Solidarity (2005). *Health care and long-term care: preliminary report*. Brussels, Social Protection Committee, European Commission (http://ec.europa.eu/employment_social/social_protection/docs/hc_ltc2005_pt_en.pdf, accessed 10 January 2011).

Ministry of Internal Affairs, Road Safety Authority (2009). *Sinistralidade rodoviária – elementos estatísticos [Statistical information on road accidents]*. Lisbon, Ministry of Internal Affairs (available at Pordata).

Ministry of Labour and Social Solidarity (2005). *Carta social – rede de serviços e equipamentos sociais 2005 [Social chart – network of social services and equipment 2005]*. Lisbon, Ministry of Labour and Social Solidarity (http://www.gep.mtss.gov.pt/estudos/cartasocial.php, accessed 7 June 2011).

Missão para os Cuidados de Saúde Primários [Mission for Primary Health Care Services] (2011). *O valor dos cuidados de saúde primários [The value of primary care]*. Lisbon, Ministry of Health (http://www.mcsp.min-saude.pt/engine.php?cat=1, accessed 28 April 2011).

Nolte E, McKee M (2008). Measuring the health of nations: updating an earlier analysis. *Health Affairs*, 27(1):58–71.

OECD (2009). OECD Health Data 2009 [online database]. Paris, Organisation for Economic Co-operation and Development (http://www.oecd.org/document/54/0,3343,en_2649_37407_43220022_1_1_1_1,00.html, accessed 15 June 2011).

OECD (2010). OECD Health Data 2010 [online database]. Paris, Organisation for Economic Co-operation and Development (http://www.oecd.org/document/30/0,3746,en_2649_37407_12968734_1_1_1_37407,00.html, accessed 10 January 2011).

Pereira J, Pinto CG (1992). Equidade no financiamento da saúde em Portugal [Equity in health care financing in Portugal]. *Economia*, 16:105–135.

Portela C, Pinto M (2005). Contribuição do sistema de preços de referência para a concorrência no mercado farmacêutico em Portugal [Reference pricing as a competition trigger on the Portuguese pharmaceutical market]. *Speech at 9ª Conferência da Associação Portuguesa de Economia da Saúde [9th Conference of Portuguese Association of Health Economics]. Coimbra, 22 November 2005*.

Portuguese Central Bank (2009). *Relatório anual [Annual report]*. Lisbon, Portuguese Central Bank.

Rodrigues A et al. (2007). *Estudo do sector das farmácias em Portugal [Study on the pharmacy sector in Portugal]*. Coimbra, Centre for the Study and Research in Health of the University of Coimbra (CEISUC) (Report to the Ordem dos Farmacêuticos).

Santana P (2000). Ageing in Portugal: regional inequities in health and health care. *Social Science and Medicine*, 50:1025–1036.

Santana P (2005). *Geografias da saúde e do desenvolvimento [Health and development geography]*. Coimbra, Edições Almedina.

Simões J (2004). *Retrato politico da saúde – dependência do percurso e inovação em saúde: da ideologia ao desempenho [Political portrait of health – path dependency and innovation in health: from ideology to performance]*. Coimbra, Livraria Almedina.

Simões J, ed. (2009). *30 anos do Serviço Nacional de Saúde – um percurso comentado [30 years of the National Health Service – a commented route]*. Coimbra, Livraria Almedina.

Simões J, Barros P, Pereira J (2007). *Relatório final da Comissão para a Sustentabilidade do Financiamento do Serviço Nacional de Saúde [Final report – Task Force for the Sustainability of the National Health Service]*. Lisbon, Ministry of Health.

Thomson S, Mossialos E, eds. (2009). *Private health insurance in the European Union*. Brussels, European Commission.

United Nations (2009). *World Population*. New York, United Nations, Department of Economic and Social Affairs, Population Division.

Vertrees JC, Manton KG (1986). A multivariate approach for classifying hospitals and computing blended payment rates. *Medical Care*, 24:283.

Wagstaff A et al. (1999). Equity in the finance of health care: some further international comparisons. *Journal of Health Economics*, 18:263–290.

WHO (1986). *Ottawa Charter for Health Promotion*. Geneva, World Health Organization.

WHO, ACS (2008). *The World Health Report 2008: primary health care – now more than ever*. Geneva, World Health Organization (http://www.who.int/whr/2008/en/index.html, accessed 19 May 2011).

WHO Regional Office for Europe (2010). European Health for All database [offline database]. Copenhagen, WHO Regional Office for Europe (June 2010 update; http://www.euro.who.int/hfadb, accessed 7 June 2011).

WHO Regional Office for Europe (2011). European Health for All database [offline database]. Copenhagen, WHO Regional Office for Europe (January 2011 update; http://www.euro.who.int/hfadb, accessed 15 June 2011).

World Bank (2009). *World Development Indicators 2009*. Washington, DC, World Bank.

Xavier M (2006). Comparing mental health services across Europe – from evaluation to quality assurance. In: Herrmann P, Sapouna L, eds. *Knowledge in mental health: reclaiming the social*. New York, Nova Science Publishers:19–142.

Xavier M et al. (2002). Avaliação das necessidades de cuidados de indivíduos com esquizofrenia em Portugal – estudo comparativo multicêntrico [Evaluating schizophrenic patients' needs in Portugal – a comparative study]. *Revista Portuguesa de Saúde Pública*, 20:5–17.

9.3 Further reading

Instituto de Seguros de Portugal (2005). *Relatório do sector segurador e fundos de pensões 2004 [Report on the insurance and pension funds 2004]*. Lisbon, Portuguese Insurance Institute.

Mossialos E, Thomson S (2004). *Voluntary health insurance in the European Union*. Copenhagen, WHO Regional Office for Europe, on behalf of the European Observatory on Health Systems and Policies.

Nolte E, McKee M (2003). Measuring the health of nations: analysis of mortality amenable to health care. *BMJ*, 327:1129–1132.

Nolte E, McKee M (2004). *Does health care save lives? Avoidable mortality revisited*. London, The Nuffield Trust.

Nolte E, Wait S, McKee M (2006). *Investing in health: benchmarking health systems*. London, The Nuffield Trust.

OECD (2004). *Economic surveys – Portugal 2004*. Paris, Organisation for Economic Co-operation and Development.

OECD (2006). *Economic surveys – Portugal 2006*. Paris, Organisation for Economic Co-operation and Development.

OECD (2008). *Economic surveys – Portugal 2008*. Paris, Organisation for Economic Co-operation and Development.

Oliveira M, Pinto CG (2005). Health care reform in Portugal: an evaluation of the NHS experience. *Health Economics*, 14:203–220.

OPSS [Portuguese Health System Observatory] (2006). *Um ano de governação em saúde: sentidos e significados [A year of government in health: directions and interpretation]*. Coimbra, Centre for the Study and Research in Health of the University of Coimbra (CEISUC) (http://www.observaport.org/NR/rdonlyres/ ebkvphcy4nxyspcp3whgfag 73gynjmrmg7dqpshwvh22y4plc2hwy7yrx7dw6axt 2ssimbhwgxxczp/RP_2006.pdf, accessed 28 June 2007).

Simões J, ed. (2009). *30 anos do Serviço Nacional de Saúde – um percurso comentado [30 years of the National Health Service – a commented route]*. Coimbra, Livraria Almedina.

Van Doorslaer E, Masseria C, OECD Health Equity Research Group (2004). *Income-related inequality in the use of medical care in 21 OECD countries*. Paris, Organisation for Economic Co-operation and Development (Health Working Papers, No. 14).

Viegas V, Frada J, Miguel JP (2006). *A Direcção-Geral da Saúde: notas históricas [Directorate-General of Health: historical notes]*. Lisbon, Directorate-General of Health (http://www.insa.pt/sites/INSA/SiteCollectionDocuments/ADGSnotashistoricas.pdf, accessed 19 May 2011).

WHO Regional Office for Europe (2010). *WHO evaluation of the National Health Plan of Portugal (2004–2010)*. Copenhagen, WHO Regional Office for Europe.

WHO Regional Office for Europe (2010). *Portugal health system performance assessment*. Copenhagen, WHO Regional Office for Europe.

9.4 Useful web sites

ACS WebSIG – http://www.websig.acs.min-saude.pt/

DGH – http://www.dgs.pt

ERS – http://www.ers.pt

High Commissariat for Health – http://www.acs.min-saude.pt

INE – http://www.ine.pt

INFARMED – http://www.infarmed.pt

Instituto de Seguros de Portugal – http://www.isp.pt

Ministry of Health – http://www.mcsp.min-saude.pt/

National Health Plan – http://www.acs.min-saude.pt/pns2011-2016/

Pordata – http://www.pordata.pt/

RNCCI – http://www.rncci.min-saude.pt/

9.5 HiT methodology and production process

The HiT profiles are produced by country experts in collaboration with the Observatory's research directors and staff. The profiles are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile HiTs. 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 HiT profiles, ranging from national statistics, national and regional policy documents to published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over 1200 indicators for the 34 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health in All Policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments. With its summer 2007 edition, the Health for All database started to take account of the enlarged EU of 27 Member States.

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

A typical HiT profile consists of 10 chapters.

1 Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.

2 Organizational structure: provides an overview of how the health system in the country is organized and outlines the main actors and their decision-making powers; discusses the historical background for the system; and describes the level of patient empowerment in the areas of information, rights, choice, complaints procedures, safety and involvement.

3 Financing: provides information on the level of expenditure, who is covered, what benefits are covered, the sources of health care finance, how resources are pooled and allocated, the main areas of expenditure, and how providers are paid.

4 Regulation and planning: addresses the process of policy development, establishing goals and priorities; deals with questions about relationships between institutional actors, with specific emphasis on their role in regulation and what aspects are subject to regulation; and describes the process of HTA, and research and development.

5 Physical and human resources: deals with the planning and distribution of infrastructure and capital stock; the context in which IT systems operate; and human resource input into the health system, including information on registration, training, trends and career paths.

6 Provision of services: concentrates on patient flows, organization and delivery of services, addressing public health, primary and secondary health care, emergency and day care, rehabilitation, pharmaceutical care, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health care for specific populations.

7 Principal health care reforms: reviews reforms, policies and organizational changes that have had a substantial impact on health care.

8 Assessment of the health system: provides an assessment based on the stated objectives of the health system, the distribution of costs and benefits across the population, efficiency of resource allocation, technical efficiency in health care production, quality of care, and contribution of health care to health improvement.

9 Conclusions: highlights the lessons learned from health system changes; summarizes remaining challenges and future prospects.

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

9.6 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. The HiT 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.

9.7 About the authors

Pedro Pita Barros is Professor of Economics at Universidade Nova de Lisboa and Research Fellow at the Centre for Economic Policy Research, London. His research interests are in health economics and competition policy. He has also contributed to several books. He is an editor of the International Journal of Health Care Finance and Economics, and associate editor of the Journal of Health Economics, Health Economics, Portuguese Economic Journal and Health Care Management Science.

Sara Ribeirinho Machado is a PhD candidate at Boston University. Her research interests are in health economics, industrial organization and development economics. Prior to joining Boston University, she was a research assistant at Universidade Nova de Lisboa, having provided consultancy for the Portuguese Government and private institutions.

Jorge de Almeida Simões is Professor of Health Policy and Health Care Systems at Universidade de Aveiro and other Portuguese Universities. He is also the President of the Health Regulatory Authority, the coordinator of the National Health Plan 2011–2016, and served as the Advisor to the President of the Republic of Portugal between 1996 and 2006.

The Health Systems in Transition profiles

A series of the European Observatory on Health Systems and Policies

The Health Systems in Transition (HiT) country profiles 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 profiles 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 HiT country profiles are available as PDF files at 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, the *EuroObserver* newsletter and the *Eurohealth* journal.

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

info@obs.euro.who.int

The publications of the European Observatory on Health Systems and Policies are available at *www.healthobservatory.eu*

HiT country profiles published to date:

Albania (1999, 2002[ag])
Andorra (2004)
Armenia (2001[g], 2006)
Australia (2002, 2006)
Austria (2001[e], 2006[e])
Azerbaijan (2004[g], 2010[g])
Belarus (2008[g])
Belgium (2000, 2007, 2010)
Bosnia and Herzegovina (2002[g])
Bulgaria (1999, 2003[b], 2007[g])
Canada (2005)
Croatia (1999, 2006)
Cyprus (2004)
Czech Republic (2000, 2005[g], 2009)
Denmark (2001, 2007[g])
Estonia (2000, 2004[gj], 2008)
Finland (2002, 2008)
France (2004[cg], 2010)
Georgia (2002[dg], 2009)
Germany (2000[e], 2004[eg])
Greece (2010)
Hungary (1999, 2004)
Iceland (2003)
Ireland (2009)
Israel (2003, 2009)
Italy (2001, 2009)
Japan (2009)
Kazakhstan (1999[g], 2007[g])
Kyrgyzstan (2000[g], 2005[g], 2011[g])
Latvia (2001, 2008)
Lithuania (2000)
Luxembourg (1999)
Malta (1999)
Mongolia (2007)
Netherlands (2004[g], 2010)
New Zealand (2001)
Norway (2000, 2006)
Poland (1999, 2005[k])
Portugal (1999, 2004, 2007, 2011)
Republic of Korea (2009)
Republic of Moldova (2002[g], 2008[g])
Romania (2000[f], 2008)
Russian Federation (2003[g])
Slovakia (2000, 2004, 2011)
Slovenia (2002, 2009)
Spain (2000[h], 2006, 2010)
Sweden (2001, 2005)
Switzerland (2000)
Tajikistan (2000, 2010[gl])
The former Yugoslav Republic of Macedonia (2000, 2006)
Turkey (2002[gi])
Turkmenistan (2000)
Ukraine (2004[g], 2010)
United Kingdom of Great Britain and Northern Ireland (1999[g])
United Kingdom (England) (2011)
Uzbekistan (2001[g], 2007[g])

Key	
All HiTs are available in English. When noted, they are also available in other languages:	
a	Albanian
b	Bulgarian
c	French
d	Georgian
e	German
f	Romanian
g	Russian
h	Spanish
i	Turkish
j	Estonian
k	Polish
l	Tajik

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

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.

ISSN 1817-6127