

CASE STUDY

The impact of the financial crisis on the health system and health in Portugal

Constantino Sakellarides

Luis Castelo-Branco

Patrícia Barbosa

Helda Azevedo



**World Health
Organization**

REGIONAL OFFICE FOR
Europe

European

Observatory



on Health Systems and Policies

a partnership hosted by WHO

The impact of the financial crisis on the health system and health in Portugal



The European Observatory on Health Systems and Policies supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of health systems in Europe. It brings together a wide range of policy-makers, academics and practitioners to analyse trends in health reform, drawing on experience from across Europe to illuminate policy issues.

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

The impact of the financial crisis on the health system and health in Portugal

Constantino Sakellarides
Luis Castelo-Branco
Patrícia Barbosa
Helda Azevedo

Keywords:

DELIVERY OF HEALTHCARE

HEALTH POLICY

HEALTHCARE FINANCING

HEALTHCARE SYSTEMS

PORTUGAL

© World Health Organization 2014 (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies)

Address requests about publications to: Publications, WHO Regional Office for Europe, UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark.

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (<http://www.euro.who.int/pubrequest>).

All rights reserved. The European Observatory on Health Systems and Policies welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the European Observatory on Health Systems and Policies concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the European Observatory on Health Systems and Policies in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the European Observatory on Health Systems and Policies to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the European Observatory on Health Systems and Policies be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the European Observatory on Health Systems and Policies or any of its partners.

Contents

List of tables and figures	vi
Abbreviations	vii
Foreword	viii
Acknowledgements	ix
Introduction	1
1. The nature and magnitude of the financial and economic crisis	31.1. The
origins and immediate effects of the crisis	3
1.2. Government responses to the crisis	3
1.3 Broader consequences	5
2. Health system pressures prior to the crisis	7
3. Health system responses to the crisis	9
3.1 Changes to public funding for the health system	11
3.2 Changes to coverage	16
3.3 Changes to health service planning, purchasing and delivery	19
4. Implications for health system performance and health	23
4.1 Changes in health care-seeking behaviour	23
4.2 Changes to health services and providers	26
4.3 Impact on health	27
5. Discussion	29
5.1 Drivers of change	29
5.2 Content and process of change	30
5.3 Implementation challenges	30
5.4 Resilience in response to the crisis	31
6. Conclusions	33
Appendix 1: Expert panels on impact on health and health systems	35
References	37
About the authors	44

List of tables and figures

Tables

PT Table 1	Demographic and economic indicators in Portugal, 2000–2012	4
PT Table 2	Summary of the Portuguese AP health content: initial version, May 2011	9
PT Table 3	Health expenditure trends in Portugal, 2000–2012	13
PT Table 4	Annual government budget funding to the Portuguese NHS, initial and final allocation, 2005–2013	15
PT Table 5	Changes to a selection of user charges in Portugal, 2011–2013	18
PT Table 6	Changes in drug expenditure (NHS ambulatory and hospital) as a percentage of that in the previous year, 2007–2012	20

Figures

PT Fig. 1	Trends in infant mortality: (a) in Portugal (1960–2012) and (b) in European countries (2012)	7
PT Fig. 2	Total expenditure on health as a percentage of GDP, Portugal and EU average, 2000–2012	11
PT Fig. 3	Total expenditure on health per capita, Portugal and EU average, 2000–2012	11
PT Fig. 4	Public expenditure on health as a share of total health expenditure, Portugal and EU average, 2000–2012	12
PT Fig. 5	Breakdown of total health care expenditure by expenditure provider in Portugal, 2008–2011	14
PT Fig. 6	Evolution of selected user charges in Portugal, 2003–2013	17

List of abbreviations

ADSE	Directorate-General of Social Protection for Workers in Public Administration (Direção-Geral de Protecção Social aos Funcionários e Agentes da Administração Pública)
AP	Economic and Financial Adjustment Programme
EU	European Union
EU15	Member States before May 2004
GDP	Gross domestic product
GP	General practitioner
IMF	International Monetary Fund
MoU	Memorandum of Understanding
NHS	National Health Service
WHO	World Health Organization

Foreword

This report was produced as part of a series of six country case studies and forms part of a larger study on the impact of the financial crisis since 2008–2009 on health systems in the European Region. The countries studied in depth are Estonia, Greece, Ireland, Latvia, Lithuania and Portugal, which represent a selection of countries hit relatively hard by the global financial and economic crisis. In-depth analysis of individual countries, led by authors from the country concerned, adds to understanding of both the impact of a deteriorating fiscal position and the policy measures put in place as a result. These case studies complement a broader analysis which summarizes official data sources and the results of a survey of key informants in countries of the WHO European Region; they will also be published as part of a two volume study conducted jointly by the European Observatory on Health Systems and Policies and the WHO Regional Office for Europe.

Acknowledgements

The authors would like to acknowledge the contribution of interviewed experts and that of those participating in expert panels: Adalberto Campos Fernandes (Assistant Professor Health Policy and Management and a health services manager), Alcino Maciel Barbosa (Senior Public Health Specialist), Alexandra Fernandes (GP Specialist, coordinator of a family health unit), Ana Escoval (Assistant Professor of Health Policy and Management and a hospital manager), Ana França (director of a hospital emergency department), Celeste Gonçalves (Assistant Professor of Public Health and a senior public health specialist), Diana Frasilho (psychologist, preparing a doctoral dissertation on the mental health impact of the financial crisis), José Aranda da Silva (Senior Specialist in Pharmaceutical Sciences and Practice), José Carlos Caiado (a senior hospital manager), Luis Gardete Correia (Coordinator of the the Portuguese Diabetes Observatory and a diabetes specialist), Manuel José Lopes (Professor of Health Service Research and a senior nursing care specialist focusing on the elderly), Manuel Schiappa (Senior Public Health and Health Information Specialist), Paulo Espiga (executive director of a primary health care organization).

The editors and authors would also like to extend our sincere thanks to Professor Pedro Pita Barros, Professor Jorge Simões, Professor João Pereira and Professor José Manuel Pereira Miguel for reviewing this chapter and providing incisive and constructive comments on a previous draft. Also thanks to Jonathan Cylus who acted as an internal reviewer.

Finally, thanks are due to the Ministry of Health for information and comments and also to participants at the author workshop held in Barcelona in January 2013, as well as those commenting via the web-based consultation following the World Health Organization (WHO) meeting "Health systems in times of global economic crisis: an update of the situation in the WHO European Region" held in Oslo on 17–18 April 2013.

Financial support

The WHO is grateful to the United Kingdom Department for International Development for providing financial support for the preparation of the series of six country case studies. Thanks are also extended to the Norwegian government for supporting the broader study on the impact of the economic crisis on health systems in the European Region.

Introduction

The economic crisis in Portugal is a product of both internal and external factors. Internally, low investment in tradable goods and slow economic growth in the first decade of the 21st century led to a lack of competitiveness compared with the rest of Europe. Weak economic growth was associated with increased public deficits, as well as increasing private and public foreign debts. Externally, the global financial crisis resulted in a sudden and sizable increase in financial market interest rates for the more vulnerable economies in the European Union (EU), including Portugal. Under these circumstances, Portugal was unable to refinance its foreign debt and was forced to request financial assistance from the EU, the European Central Bank and the International Monetary Fund (IMF). An Economic and Financial Adjustment Programme (AP) was agreed between these institutions and the Portuguese Government in May 2011. The primary challenge for Portugal was to respond to the crisis in a manner that successfully met the financial targets included in the AP, supported the development of an economic model centred around tradable goods and services, and ensured social protection for the Portuguese population.

This case study summarizes policy responses to the crisis in Portugal and reviews the impact on health and the health system from 2008 to mid-2013.¹ There are a number of limitations in achieving such an objective:

- the events under analysis occurred at a rapid pace, making it difficult to identify the effects of specific actions;
- the impact of the crisis is likely to manifest itself in different time frames depending on particular health and health systems domains; and
- official reports and systematic studies on these matters are scarce.

¹ Portugal exited the three-year AP in May 2014.

In order to complement existing information, interviews were conducted and two expert panels were convened (see Appendix 1 for details). Experts included individuals involved in community health, health service management and provision of care.

The nature and magnitude of the financial and economic crisis

1.1 The origins and immediate effects of the crisis

Portugal already suffered from internal imbalances prior to the current crisis, with low economic growth, low productivity and low competitiveness. This situation worsened with the international economic crisis, mainly because of a shortage of credit, which left Portugal unable to finance its debt obligations. As in many other European countries, Portugal's public deficit and debt increased substantially after 2008 following the EU's relaxing of fiscal targets in the context of the crisis (PT Table 1). The poor macroeconomic outlook for Portugal led to a deterioration of confidence and rising market pressures on Portuguese debt, with consecutive downgrading of Portuguese sovereign bonds by credit rating agencies. The risk premium of 10-year Portuguese treasury bonds began to widen as the financial crisis deepened, reaching 5.4% in 2010 and exceeding 10% in 2011 (OECD, 2013b). These unsustainable borrowing costs and reduced access to international debt markets led to a request for international financial assistance by the Portuguese Government at the beginning of April 2011.

1.2 Government responses to the crisis

In April 2011, Portugal negotiated a bailout with the “Troika”, comprising the European Commission, the European Central Bank and the IMF. The Portuguese Government and the Troika signed a Memorandum of Understanding (MoU) in May 2011 for a €78 billion loan (with interest rates averaging 4.3% in 2011 and 3.9% in 2012) conditional on adoption of the AP, which contained a set of requirements covering the period 2011–2014. The AP included austerity requirements, such as reducing public spending and increasing tax revenues in order to reduce the budget deficit, and focused on fiscal policy, stabilization of the financial sector and structural reforms in a large number of areas, including labour, goods, services and housing.

PT Table 1 Demographic and economic indicators in Portugal, 2000–2012

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total population (in thousands)	10,226	10,293	10,368	10,441	10,502	10,503	10,522	10,543	10,558	10,568	10,573	10,558 (b)	10,704
People aged 65 and over (% total population)	16.2	16.4	16.6	16.7	16.9	17.3	17.5	17.6	17.8	18.1	18.4	18.8 (b)	18.4
GDP per capita (€)	12,500	13,100	13,600	13,700	14,200	14,600	15,200	16,000	16,200	15,900	16,300	16,100	15,600
Real GDP growth (%)	3.9	2.0	0.8	-0.8	1.5	0.8	1.4	2.4	0.0	-2.9	1.9	-1.3	-3.2
Government deficit (% GDP)	-3.0	-4.3	-2.9	-3.0	-3.4	-6.5	-4.6	-3.2	-3.7	-10.2	-9.8	-4.3	-6.5
Government consolidated gross debt (% GDP)	61.1	62.6	66.1	67.2	69.5	77.7	77.5	75.5	80.8	94.0	98.1	97.2	127.9
Long-term interest rates (10-year government bonds) (%)	5.6	5.2	5.0	4.1	4.1	3.4	3.9	4.4	4.5	4.2	5.4	10.2	10.5
Total unemployment (% of economically active population)	4.0	4.0	5.1	6.4	6.8	7.7	7.8	8.1	7.7	9.6	11.0	12.9	15.9
Long-term unemployment (% of economically active population)	1.7	1.5	1.8	2.1	2.9	3.7	3.9	3.8	3.7	4.2	5.6	6.2	7.7

Note: (b): Break in series
Sources: OECD, 2013a.

Between mid-2011 and the last trimester of 2012, the AP was implemented under relatively favourable political and social conditions. There was broad political support within the government and limited negative reaction to the austerity programme among the Portuguese population. However, support for the austerity measures decreased after September 2012. Following the fifth AP evaluation and preparation of the 2013 state budget, it became clear that the 2012 austerity measures did not successfully achieve targets, such as reducing the deficit to 4.5% of gross domestic product (GDP). This target was subsequently increased to 5%, with the time period for ultimately achieving a 3% target increased from three to four years. Unemployment figures were also worse than predicted. Despite this, more austerity was planned for 2013.

Results from the seventh AP review in March 2013 raised more public concerns. The revised 2012 public deficit target of 5% of GDP was still not achieved (6.4%); the 3% deficit target was then postponed for one more year (from four to five years) (European Commission, 2013a). The persistent current account deficits led to greater public debt, which was then projected to peak at close to 124% of GDP in 2014. As a result, the government announced that during 2013 and 2014, public expenditure would need to be reduced by €4.7 billion.

1.3 Broader consequences

During the crisis, the unemployment rate increased from 7.7% in 2008 to 15.9% in 2012 and was 16.7% in mid-2013 (Eurostat, 2013). In mid-2012, one-fifth of Portuguese households were affected by unemployment. Among surveyed households, there was a 32.2% reduction in expenditure for leisure activities, 30.3% for essential goods, 22.2% for health care and 5.1% for education (SEDES, 2012). The percentage of unemployed individuals not receiving unemployment benefits was 73.6% by the end of 2012 (Statistics Portugal, 2013). The risk of poverty of Portuguese children also increased from 23.0 in 2010 to 26.8 in 2012 (Caritas Europa, 2013).

Unemployment has contributed to substantial increases in emigration, by 116% between 2008 and 2011 (Statistics Portugal, 2013). Many of these new migrants are young and well educated. For example, in July 2013 the medical and nursing associations reported that in the last 18 months approximately 5000 medical professionals (about one-third physicians and two-thirds nurses) requested documentation allowing them to practise elsewhere (Ordem dos Enfermeiros, 2013; Ordem dos Médicos, 2013).

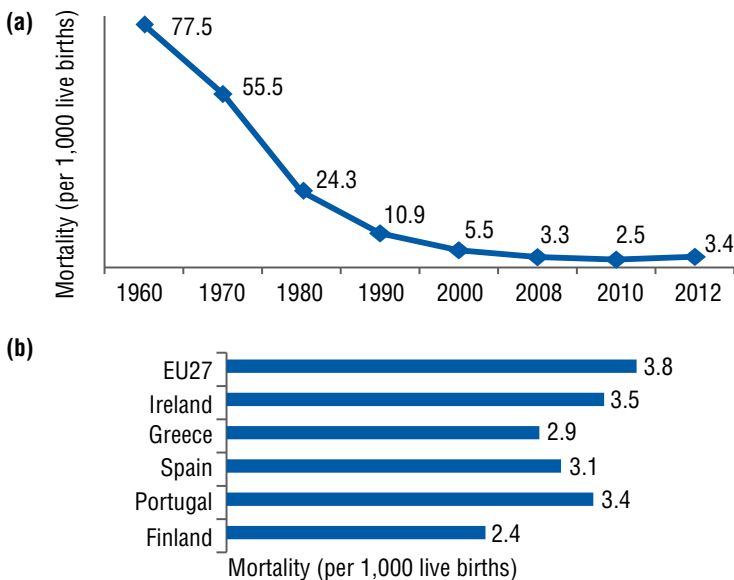
As early as May 2010, a Eurobarometer study monitoring the social impact of the crisis through public perceptions reported the following findings (European Commission, 2010):

- 72% of Portuguese respondents perceived changes in the level of poverty in the areas they lived (over the last 12 months), compared with 85% of Greek, 50% of Irish and 22% of Swedish respondents; and
- 69% of Portuguese respondents were concerned that their income in old age would not be sufficient to live on with dignity, compared with 73% of Greek, 49% of Irish and 19% of Danish respondents.

Health system pressures prior to the crisis

In recent decades, the health of the Portuguese population has improved considerably; for example, there has been remarkable progress in infant mortality over the past 30 years, from the very worst rate in the EU15 in 1985 to one of the best by 2010 (PT Fig. 1). However there remain many areas where the population is vulnerable. These include child poverty (Bastos, 2012), unhealthy behaviours (e.g. motorcar accidents, substance abuse) and a relatively unhealthy ageing population (OECD, 2012a).

PT Fig. 1 Trends in infant mortality: (a) in Portugal (1960–2012) and (b) in European countries (2012)



In the decade prior to the crisis, important changes were made to the Portuguese health system. Following conceptual and organizational developments introduced in the late 1990s, a comprehensive primary health care reform was initiated in 2005 by providing support for the rapid expansion of family health units, known as *unidades de saúde familiares*, which are small, multiprofessional public primary health care teams operating under performance contracting that choose their own leadership, thus setting up a primary health care network. Other changes included adopting national health strategies and plans (in 1998 and 2004), taking steps towards decentralizing public hospital management and adopting public–private partnerships for new public hospitals, developing a long-term care network, investing in new mechanisms for health services contracting, advances in pharmaceutical policy such as the introduction of generic drugs, improvements to waiting list management, rationalizing emergency and maternity services, and investment in more human resources for health services, particularly physicians and nurses.

Although the Portuguese National Health Service (NHS) is considered to be better performing than many of the country's other public sectors, and a “Portuguese health cluster” bringing together health services, research institutions and industry to promote the economic value of the health sector was created in the 2000s, concerns about the sustainability of the NHS have been voiced repeatedly since the mid-1990s. In 2007, a Commission on the Financial Sustainability of the NHS established by the Ministry of Health reported its main findings and recommendations (Simões, Barros & Pereira, 2007). These included:

- maintaining the principle of basic, mandatory and universal health insurance, financed through taxation;
- reducing the tax credits for private health care expenditures;
- making public subsystems that finance health care expenditures for public servants financially self-sustainable (i.e. discontinuing subsidies from the general state budget); and
- under exceptional circumstances, temporarily establish an earmarked tax to complement NHS financing.

These recommendations were not implemented at the time, but most of them were included in the AP by mid-2011.

By 2008, notable challenges included high out-of-pocket payments, relatively high expenditure on pharmaceuticals and low nurse-to-physician and general practitioner (GP)-to-specialist ratios. There were also difficulties accessing primary health care services in some parts of the country. Although surgical waiting times were still high, some progress had been achieved, although less so for outpatient waiting times. Lastly, local public health infrastructure still required modernization.

Health system responses to the crisis

Specific to the health system, the objectives of the AP were to improve efficiency and effectiveness, encourage more rational use of services, control expenditure, reduce public spending on pharmaceuticals (to 1.25% of GDP by the end of 2012 and about 1% of GDP in 2013) and reduce hospital operating costs. More rational use of services and cost-containment were expected to generate savings of 0.3% of GDP in 2013, of which two-thirds of savings were expected from pharmaceuticals (PT Table 2). The Ministry of Health was actively committed to implementing the AP, particularly those on pharmaceutical policies.

PT Table 2 *Summary of the Portuguese AP health content: initial version, May 2011*

Health sector area	Summary of targeted policies
Financing	User charges: review existing exemption categories; increase and expand co-payments (moderating fees) for certain services; index NHS moderating fees to inflation; cut tax allowances for health care; reduce cost of existing schemes for civil servants; produce a health sector strategic plan consistent with the medium-term budget framework
Drug pricing	Set the maximum price of the first generic introduced in the market to 60% of the branded product; revise reference pricing based on international prices
Prescribing	Compulsory electronic prescription for medicines and diagnostics covered by public reimbursement for physicians in public and private sectors; improve monitoring system of prescriptions and establish a systematic assessment in terms of volume and value; incentivize public and private physicians to dispense generic medicines and less costly branded products; establish clear rules for prescription and complementary diagnostic examinations (prescription guidelines for physicians); remove entry barriers for generic medicines

PT Table 2 Summary of the Portuguese AP health content: initial version, May 2011 (continued)

Health sector area	Summary of targeted policies
Pharmacies	Change the calculation of profit margin into a regressive mark-up and a flat fee for wholesale companies and pharmacies; ensure a reduction in public spending and encourage the sales of less expensive pharmaceuticals (lower profits were expected to reduce public spending on pharmaceuticals by €50 million); introduce a pay-back scheme if initiatives are unsuccessful
Procurement	Set up a centralized procurement system for medical goods in the NHS in order to reduce costs and fight waste; finalize coding system and a common registry for medical supplies; take measures to increase competition among private providers and reduce spending on private providers delivering diagnostic and therapeutic services to the NHS by at least 10% by the end of 2011 and by an additional 10% by the end of 2012; introduce a regular revision of the fees paid to private providers with the aim of reducing the cost of older diagnostic and therapeutic services; assess compliance with European competition rules
Primary care	Increase the number of family health units (unidades de saúde familiares) operating under contracting with regional authorities using a mix of salary and performance-related payments; set-up a mechanism to guarantee a more even distribution of family doctors across the country
Hospitals	Set out a timetable to clear all arrears (accounts payable to domestic suppliers past the due date by 90 days) and introduce standardized commitment control procedures for all entities to prevent the re-emergence of arrears; provide detailed description of measures aimed at achieving a reduction of €200 million hospitals' operational costs in 2012 (€100 million in 2012 in addition to savings of over €100 million in 2011), including a reduction in the number of management staff as a result of concentration and rationalization in public hospitals and health centres; continue the publication of clinical guidelines and associated auditing system; improve selection criteria for chairs and members of hospital boards; set up a system for benchmarking hospital performance and produce regular annual reports, with the first to be published by end 2012; ensure full interoperability of information technology systems in hospitals and produce monthly reports to the Ministry of Health and Ministry of Finance; continue with the reorganization and rationalization of the hospital network through specialization and concentration of hospital and emergency services and joint management; a detailed action plan was to be published by 30 November 2012 and its implementation was to be finalized by the first quarter of 2013; move some hospital outpatient services to family health units; implement stricter control of hospital staff working hours and activities
Human resources	Annually update the inventory of practising doctors and identify future staff needs; prepare regular annual reports (the first by end of March 2012), planning for the allocation of human resources up to 2014; introduce rules to increase mobility of health care staff; adopt flexible schedules for all staff, reducing by at least 10% spending on overtime in 2012 and another 10% in 2013
Other	Finalize the establishment of a system of patient electronic medical records; reduce costs for patient transportation by one third

Note: The measures in the AP were expected to be implemented within 18 months. They have been reviewed every three months, with the last review in the second quarter of 2014. During the seven AP reviews to date, new measures have been introduced, some measures completed or reoriented and others removed. Some of these changes are described in the text for pharmaceutical drugs and primary health care.

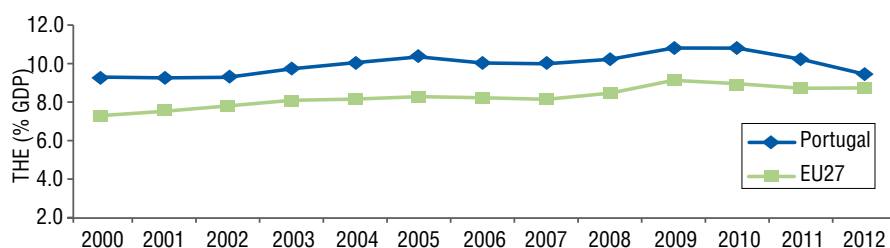
To some extent, the objectives of the AP are an extension of cost-containment measures that were adopted during 2009–2011, prior to the signing of the AP. This included three cost-containment packages that were applied across the public sector, which included measures such as a 5% reduction to public workers' salaries, which also affected NHS staff. A number of specific health policy responses to the financial crisis were also adopted during this period. These included health budget and expenditure cuts; drug price cuts and changes to cost-sharing rules; price reductions for services provided by the private sector to the NHS (diagnostic tests and renal dialysis); reductions in spending on overtime for NHS workers; and reductions to non-emergency patient transportation.

3.1 Changes to public funding for the health system

Health expenditure

In 2008, health spending was 10.2% of GDP, above the EU average of 8.5%. It peaked at 10.8% in 2009 and 2010 and decreased to 9.5% in 2012 (PT Fig. 2). However, historically, health care expenditure per capita has been below the EU average (US\$2399 per capita, purchasing power parity, in 2012; approximately 20% below the EU average (PT Fig. 3).

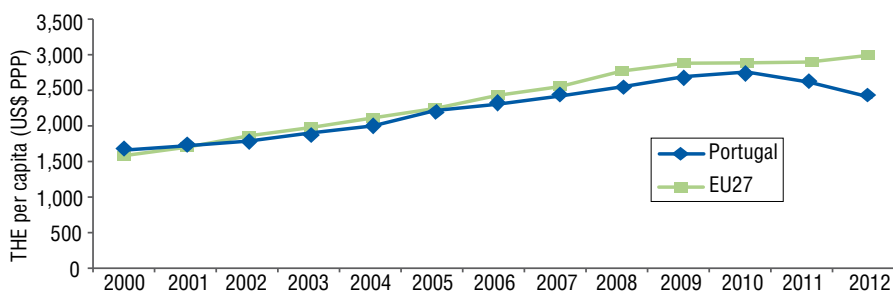
PT Fig. 2 Total expenditure on health as a percentage of GDP, Portugal and EU average, 2000–2012



Note: THE: Total health expenditure.

Source: WHO Regional Office for Europe, 2014.

PT Fig. 3 Total expenditure on health per capita, Portugal and EU average, 2000–2012



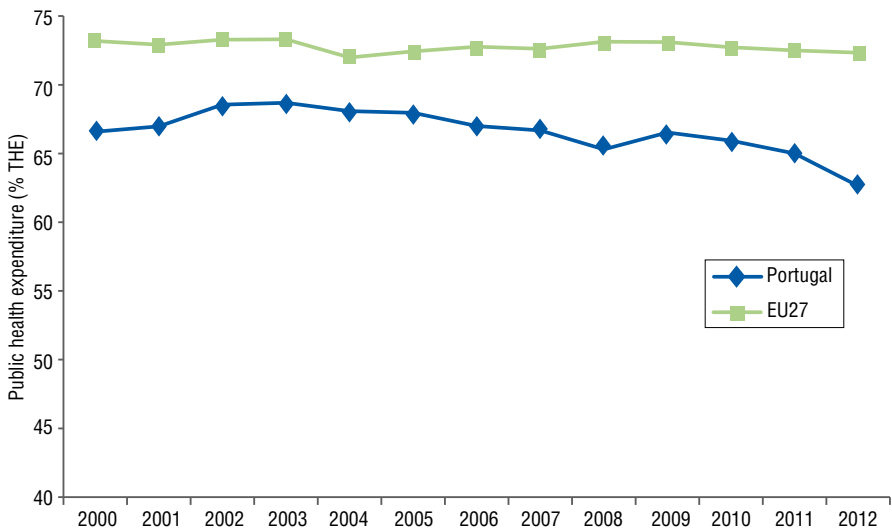
Notes: PPP: Purchasing power parity; THE: Total health expenditure.

Source: WHO Regional Office for Europe, 2014.

The percentage of total health expenditure financed by public sources is shown in PT Table 3; this is made up mainly from taxation (over 90%,) including funding of the NHS and subsidies to the other health subsystems for public sector employees (see also Pita Barros, Machado & Simões, 2011). Private expenditure mainly includes out-of-pocket payments and voluntary health insurance.

Public expenditure as a share of total health expenditure remained essentially unchanged from 2008 to 2011, at about 65%, followed by a small dip to 62.6% in 2012, well below the EU average (72.3%) (PT Fig. 4). The health share of total government expenditure decreased from 14.9% in 2008 to 13.5% in 2011; the broader social sector changed from 35.1% to 37.0% of the government budget during the same period (Statistics Portugal, 2013).

PT Fig. 4 Public expenditure on health as a share of total health expenditure, Portugal and EU average, 2000–2012



Note: THE: Total health expenditure.

Source: WHO Regional Office for Europe, 2014.

The private expenditure share of total health expenditure slightly increased from 35% in 2008 to 37.4% in 2012 (PT Table 3). Total private expenditure in 2011 came from out-of-pocket payments (29% of total spending), private health insurance (3%), private health subsystems (1.9%) and other sources 0.5% (PT Fig. 5). Out-of-pocket payments increased from 28.5% of total health expenditure in 2008 to 28.9% in 2011 (Statistics Portugal, 2013; PT Fig. 5); this increase came prior to an increase in user charges introduced in 2012 (see section 3.2).

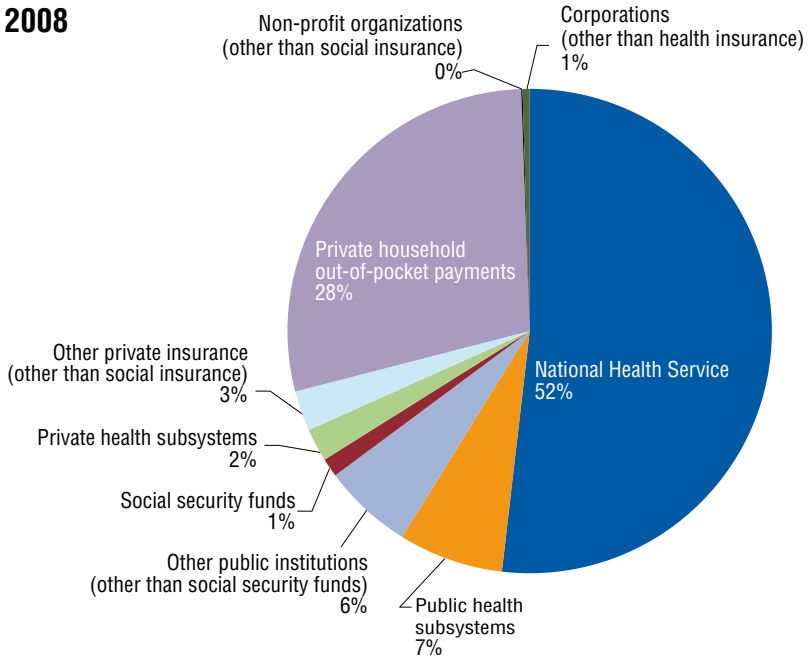
PT Table 3 Health expenditure trends in Portugal, 2000–2012

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
THE per capita (US\$ PPP)	1,659	1,720	1,786	1,900	2,000	2,216	2,304	2,419	2,549	2,693	2,758	2,615	2,399
THE (% GDP)	9.3	9.3	9.3	9.7	10.1	10.4	10.0	10.0	10.2	10.8	10.8	10.2	9.5
Public sector expenditure on health (% THE)	66.6	67.0	68.6	68.7	68.1	68.0	67.0	66.7	65.3	66.5	65.9	65.0	62.6
Public expenditure on health (% all government spending)	14.9	14.4	14.8	15.0	15.1	15.1	14.9	15.0	14.9	14.5	13.8	13.5	12.5
Voluntary health insurance (% THE)	3.3	3.4	3.7	4.4	4.6	4.2	4.5	4.4	4.6	4.3	4.3	4.6	n/a
Out-of-pocket expenditure (% THE)	24.3	24.1	23.2	23.3	23.4	23.8	25.1	25.4	26.9	25.9	25.8	27.3	31.7
Private expenditure on health (% THE)	33.4	33.0	31.5	31.3	31.9	32.0	33.0	33.3	34.7	33.5	34.1	35.0	37.4
Out-of-pocket expenditure (% private expenditure on health)	72.8	72.9	73.8	74.6	73.4	74.5	76.1	76.4	77.5	77.3	75.8	78.1	84.7
Private prepaid plans (% private expenditure on health)	9.8	10.4	11.7	14.2	14.4	13.0	13.5	13.1	13.3	12.9	12.7	13.1	n/a

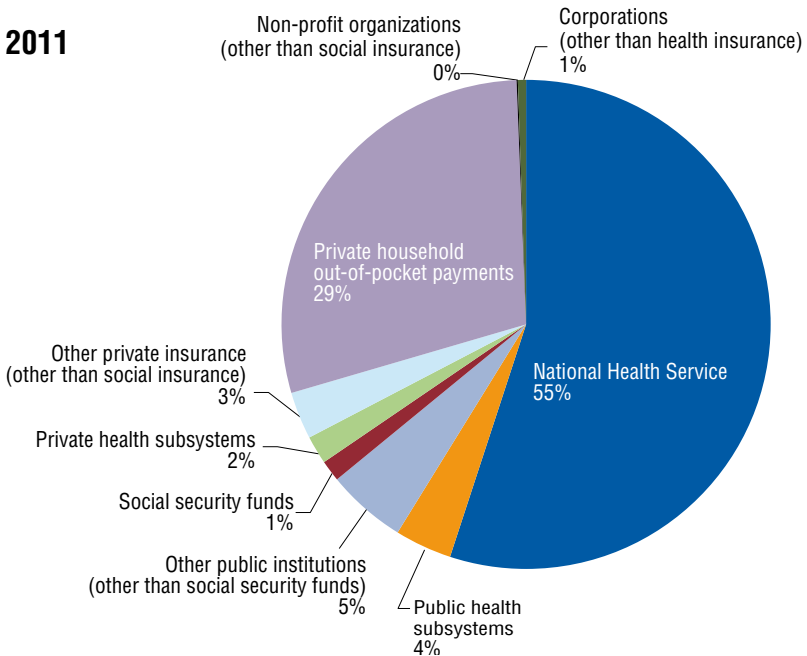
Notes: n/a: Not available; PPP: Purchasing power parity; THE: Total health expenditure.
Source: WHO Regional Office for Europe, 2014.

PT Fig. 5 Breakdown of total health care expenditure by expenditure provider in Portugal, 2008–2011

2008



2011



Source: OECD, 2012b

Health budget

The NHS budget is established within the annual government budget. The initial allocation to the NHS showed a rising trend between 2005 and 2010 but decreased in both 2011 and 2012 (PT Table 4). In 2013, this value slightly increased compared with 2012.

PT Table 4 Annual government budget funding to the Portuguese NHS, initial and final allocation, 2005–2013

Year	IA (€, millions)	FA (€, millions)	Variation between IA and FA (%)	Adjusted IA + PIDDAC (€, millions)	GDP (Adjusted IA + PIDDAC)/ current prices) (€, millions)	(Adjusted IA + PIDDAC)/ GDP (%)
2005	5,834.0	7,634.0	3.11	5,914.2	154,268.7	3.83
2006	7,636.7	7,631.9	30.90	7,685.0	160,855.4	4.80
2007	7,674.8	7,673.4	0.50	7,710.5	169,319.2	4.55
2008	7,900.0	7,900.0	2.93	7,937.2	171,983.1	4.62
2009	8,100.0	8,200.0	2.53	8,136.7	168,503.6	4.83
2010	8,698.7	8,848.7	7.39	8,180.8	172,669.7	4.74
2011	8,100.0	8,251.8	-6.88	7,574.8	170,909.0	4.43
2012	7,525.1	9,695.8	-7.10	6,976.4	166,342.0	4.19
2013	7,801.1	7,882.5	3.67	7,252.4	165,690.0	4.38

Notes: IA: Initial allocation; FA: Final allocation; PIDDAC: Central Government Expenditure and Investment Programme.

Source: ACSS, 2012a; Statistics Portugal, 2013; Government budgets.

Traditionally, there have been soft budgets given that actual health expenditure usually exceeds the budget limits by a wide margin; this has necessitated approval of supplementary budgets. Since 2006, total government spending has been kept within the initial allocations of the budget, which resulted in a hidden debt that surfaced in mid-2011. In order to clear arrears in the health sector, in accordance with the AP, the final allocation of 2012 included an additional €1932 million for the extraordinary debt settlement programme. This final allocation in 2012 also included the debt of other public sector health subsystems to the NHS (€65 million).

Spending for all public sector health subsystems has been under the responsibility of the NHS since 2010. Additionally, since 2012, autonomous funding from the Central Government Expenditure and Investment Programme is no longer provided to NHS entities; therefore, capital investments must now be funded from the initial allocation. If we consider these added expenses, the reductions of recent years place even greater pressure on the NHS. For example, the initial

allocation to the NHS decreased by 13.5% between 2010 and 2012, but if the additional expenses are included, the NHS budget decreased by 14.4%. Using this calculation of the NHS budget, the budget allocation to finance the NHS in 2012 and 2013 was, in nominal terms, below the 2006 level and even below the final allocation of 2005. As a share of GDP, the NHS budget decreased each year from 2009 until 2012.

Changing rules for financing public insurance of public servants

The Directorate-General of Social Protection for Workers in Public Administration (Direção-Geral de Protecção Social aos Funcionários e Agentes da Administração Pública; ADSE) is a public fund for public servants and their families. Its beneficiaries have dual public health service coverage through the NHS and ADSE. ADSE provides complementary health care coverage for about 13% of the population and is an important source of revenue for the private sector. As a result, historically it has been politically difficult to reform ADSE. ADSE is one of three existing subsystems, the others being *Assistência na Doença a Militares*, which provides care to the armed forces, and *Assistência na Doença da Polícia de Segurança Pública*, which provides care to police. The AP stated that the cost of existing subsystems should be reduced by 30% in 2012 and a further 20% in 2013. Further reductions were planned in subsequent years with the goal that these subsystems will be self-sustainable by 2016. The costs of these schemes will be reduced by lowering the employer contribution rate to 1.25% in 2013, increasing employee contributions and adjusting the scope of health benefits.

Phasing out of fiscal credits for private health care expenditure

In 2012, tax credits for private health care were reduced from a maximum of 30% to 10% of total personal private expenditure. These tax credits have now been discontinued for those in the upper income brackets.

3.2 Changes to coverage

Population entitlement

There are few explicit changes to coverage for NHS users. Within the health subsystems framework, membership of ADSE has been voluntary since 2011.

The benefits package

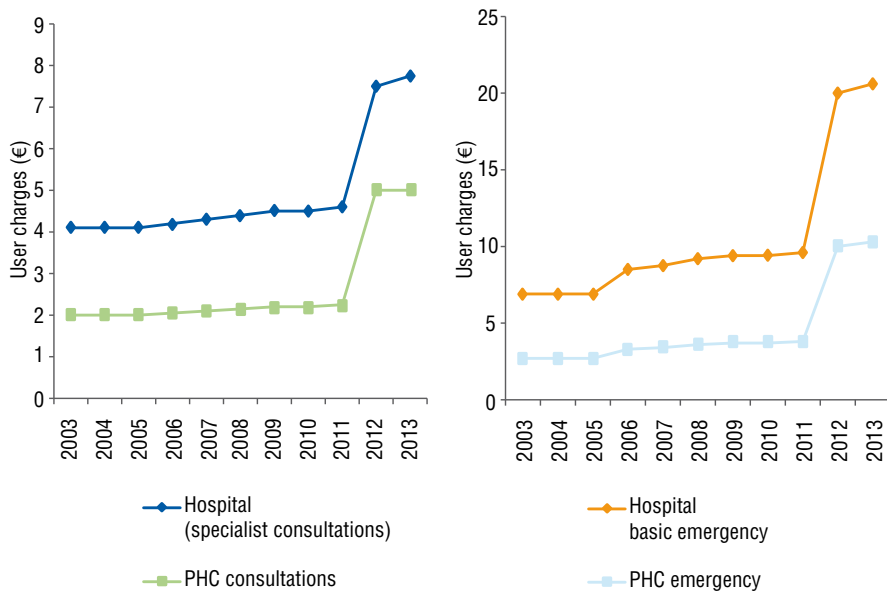
In accordance with the AP, patient transportation costs were to be reduced by one-third by the fourth quarter of 2012 compared with costs in 2010; this was to be accomplished by limiting non-urgent patient transport (e.g. transportation

to therapeutic services/rehabilitation) and specific rules were issued to health services providers concerning transportation authorizations. In addition, entitlements for patient transportation in non-emergencies is now means tested. Consequently, the target was achieved and transportation costs decreased by 39% (€58 million) between 2010 and 2012 (Ministry of Health, 2013a).

User charges

The primary change that affects access to services is to user charges. User charges were introduced for the first time in the NHS in ambulatory care in 1980 as “moderating fees”, with the explicit objective of regulating overutilization of health care services. Moderating fees had been fairly stable up until 2011; in 2012 they were increased following implementation of the AP (PT Fig. 6).

PT Fig. 6 Evolution of selected user charges in Portugal, 2003–2013



Note: PHC: public health centre.
Source: ACSS, 2012b.

In the AP, changes to moderating fees were categorized as “financing” and were expected to generate additional revenues of €150 million in 2012 and an additional €50 million in 2013. Changes to user charges in the context of implementing the AP have occurred within three distinct dimensions: increases in user charges, extension of user charges to cover most services, and changes to user charges exemptions. Some of the main increases in user charges that have been implemented since 2011 are summarized in PT Table 5.

PT Table 5 *Changes to a selection of user charges in Portugal, 2011–2013*

Services	Change in user charges
<i>Primary and ambulatory care</i>	
Specialist visits	Increased from €4.60 to €7.75
Primary health care consultations	Increased from €2.25 to €5
Urgent attendances in health centres	Increased from €3.80 to €10.30
<i>Hospital care</i>	
Type 1 hospital emergency	Increased from €9.60 to €20.60
Type 2 hospital emergency	Increased from €8.60 to €15
Type 3 hospital emergency	Increased from €8.60 to €17.50
Since January 2013	Increase of 2.8% in all hospital user charge

There was also an extension of user charges to include nursing services, vaccines not included in the national vaccination plan and diagnostic imaging and therapy in the context of emergency services. User charges are cumulative in a single emergency episode, with total payment capped at €50; day care in hospitals is capped at €25. However, user fees are not collected in situations such as family planning, respiratory home care and population-based organized screening (Health Regulatory Authority, 2013b).

Finally, in 2012 user charge exemptions were extended to cover about 50% of the population. Exemption is based on economic status (average monthly income less than or equal to €628.83) and dependent members of those low income households, as well as the unemployed registered at employment centres, their spouses and minor dependents; in addition exemption is also provided for children under 12 years; pregnant women; organ transplant recipients; the disabled (with higher than 60% incapacity); blood donors; patients with chronic disorders; living donors of cells, tissues and organs (only for primary health care services); firefighters; members of the military or veterans with service-related permanent disability; and recluses.

The role of voluntary health insurance

Voluntary private health insurance in Portugal has been increasing steadily since the 1990s but more recently this rising trend seems to have slowed down. Overall, the population covered by individual insurance increased by 4% between 2008 and 2011; during the same period, the population covered by group insurance (workers and families insured by their employers/companies) increased by 7%. The number of individual insured fell 2.5% in 2011. In 2011, the population covered by some sort of voluntary health insurance (individual and group) was

reported as being nearly 2.1 million, which represents approximately 20% of the Portuguese population (Portuguese Insurance Institute, 2011; Statistics Portugal, 2013). The average premium per insured person with individual insurance increased by 9% between 2008 and 2011 (Statistics Portugal, 2013).

Voluntary health insurance covers the relatively young, for whom health care use tends to be limited. This may explain why the approximately 20% of the population covered by voluntary health insurance only accounts for around 3% of total health expenditure.

3.3 Changes to health service planning, purchasing and delivery

Centralized procurement

A Central Purchasing Authority (Servicos Partilhados do Ministerio da Saude) was created in 2010 in order to reduce costs through price–volume agreements and to reduce waste. More restrictive practices and lower prices for public purchasing of private services (e.g. laboratory tests, imaging diagnostics and rehabilitation services) were established in 2011.

Hospitals

The AP outlined several measures aimed at increasing efficiency and decreasing hospital costs (see PT Table 1). The aim was to achieve a reduction of €200 million in hospital operating costs in 2012 (€100 million in 2012 in addition to savings of over €100 million in 2011). Hospital mergers, already taking place during the previous decade, were also given a new impetus, expecting to result in additional cuts in operating costs by at least 5% in 2013. Lastly, a timetable was established to clear all arrears (accounts payable to domestic suppliers that were past their due date by at least 90 days) and new legislation was passed in 2012 forbidding public services from incurring expenditure not covered in their approved budget (“lei dos compromissos”), therefore preventing the accumulation of new debts.

Changes to state health administrations and health sector salaries

Cost-saving measures targeting public workers have taken place, particularly since 2010. These include freezing or reducing salaries (e.g. annual bonuses consisting of two months' salary were abolished in 2012), stopping promotions, reducing existing staff and new hirings, reducing overtime hours and the amount paid for overtime work (by 10% in 2012 and a further 10% in 2013), and reducing retirement benefits. The NHS is staffed by public sector workers,

who are also affected by general government reforms in the public sector and not only changes aimed at the health sector.

These measures had spillover effects. Concerns about the future of young medical professionals in public service led to a medical strike in July 2012. After the strike, the Ministry of Health and the medical unions negotiated an agreement, signed in October 2012, that included changes in remuneration, working schedules, performance evaluation, new hiring to the NHS (2000 new health professionals in 2013–2014), career development opportunities, extending GP patient lists from 1500 to 1900 and extended mobility of physicians within the NHS. A family nurse project is also being designed with the purpose of enhancing primary health care, particularly for chronic diseases and long-term care conditions.

Pharmaceutical policy reforms

Between 2010 and 2011, NHS spending on drugs was reduced by €668 million, as this area was a priority for savings even before the AP (Directorate-General of Budget, 2012a,b; Portuguese Observatory on Health Systems, 2012). In 2011, there was a 19.2% decline in NHS expenditure on drugs prescribed in ambulatory care, accounting for more than €312 million in savings. In 2012, expenditures continued to decrease by 11.4%. NHS hospital drug expenditures in 2011 slowed to 1.2% growth, but decreased in 2012 by 1.1% based on data through to November (Infarmed, 2011; Portuguese Observatory on Health Systems, 2012) (PT Table 6). In addition, in May 2012, the Ministry of Health signed an agreement with the Portuguese Association of Pharmaceutical Industries to reduce public expenditure on drugs by €300 million in 2012, to ensure more rapid payment by the NHS on accumulated debts owed to the pharmaceutical industry and to improve access to new drugs in the Portuguese market.

PT Table 6 *Changes in drug expenditure (NHS ambulatory and hospital) as a percentage of that in the previous year, 2007–2012*

Year	Drug expenditure changes in ambulatory sector (%)	Drug expenditure changes in hospital sector (%)
2007	-1.7	3.2
2008	5.0	4.9
2009	6.2	9.7
2010	5.2	3.1
2011	-19.2	1.2
2012	-11.4	-1.1 (Jan. to Nov.)

Source: Infarmed, 2013.

Average drug prices decreased from €13 in 2007 to €10.70 in 2012, and NHS drug expenditure per capita fell from €171 to €144 during the same period (Infarmed, 2012). In some areas, reductions in drug prices were particularly pronounced. For example, the average price of simvastatin (a statin used for cholesterol control) decreased from €28 in 2009 to €6 in 2012. In the same period, omeprazole (a proton pump inhibitor) decreased from €36 to €6 and clopidogrel (a blood clotting inhibitor) decreased from €33 to €8 (Infarmed, 2012). There have been concerns that delays in establishing prices and making cost-sharing decisions for new drugs are becoming obstacles to introducing innovative drugs in the Portuguese drug market. The Ministry of Health has agreed with industry to establish appropriate procedures to deal with this situation.

In addition to price cuts, there have also been attempts to increase generic prescribing. Since June 2012, it has been mandatory for doctors to prescribe pharmaceuticals by their active ingredient rather than by their commercial brand name. The share of generic drugs dispensed increased from 21% in 2011 to 25% in 2012, albeit still short of the 30% target set by the AP. Some other steps have been taken to influence prescribing, such as providing feedback to individual prescribers on their prescribing patterns. In September 2011, electronic prescription of publicly financed drugs and diagnostic procedures also became mandatory. Finally, beginning in 2013, medical doctors, scientific societies and patient organizations were required to declare conflicts of interest, particularly in their interactions with the pharmaceutical industry.

The objectives in the original AP, summarized in PT Table 2, were also complemented with new measures introduced after the joint Troika/Portugal periodic reviews of the AP. For example, during the second review, legislation was enacted that automatically reduced the price of drugs by 50% when a patent expires, while the third review introduced monthly monitoring of pharmaceutical spending to ensure that AP targets are reached.

Health care delivery

The most important organizational change in the Portuguese health system since the early 2000s was the primary health care reform (see section 2). One of the main objectives of this reform was to improve accessibility of health care services. The AP included a small number of measures for primary health care (PT Table 2). The second AP review (December 2011) added the following aspects: shifting human resources from hospitals to primary care settings, reconsidering the role of nurses and other specialties in the provision of services, and increasing the number of patients per GP. The third review of the AP in March 2012 focused on the need to extend performance assessment to other primary care units, beyond family health units.

Long-term care services developed in cooperation between the health and welfare sectors, initiated in the late 1990s, were further developed after 2006 as long-term care networks. These networks are intended to respond to the needs of older people with some functional dependence, patients with chronic conditions and patients needing palliative care. The 2015 targets established in 2006 for the long-term care networks were 2700 convalescence beds, 3000 medium-term care beds, 7700 long-term care beds, 2300 day-care vacancies and 900 palliative care beds in both public and private contracted facilities. In June 2012, there were 906 convalescence beds, 1808 medium-term care beds, 3041 long-term care beds and 193 palliative care beds (RNCCI, 2012; Health Regulatory Authority, 2013a). Although there has been a steady increase of resources for long-term care in the country (e.g. a 6.3% increase in beds from 2011 to 2012), overall long-term care beds are still far below the established targets, even when considering that such targets may have been overambitious (RNCCI, 2012); geographic distribution of beds is also unequal (Health Regulatory Authority, 2013a). There is no reference to long-term care networks in the AP despite their significance.

A “Quality in Health” department was established by the General Health Directorate in 2009. This department promotes a large number of initiatives, including patient information and complaint management, guidelines for good medical practice and patient safety issues. A Scientific Commission for Clinical Good Practice was established and a large number of good practice guidelines (105) have been issued since 2011. An in-depth evaluation of their impact has already been initiated (87 health services audits have taken place). A specific health care services accreditation model was adopted and the first unit was accredited in 2010. Since then, 18 such accreditation exercises have been completed, and 15 are currently underway (Directorate-General of Health, 2013).

Health plans

There have been two health strategies/plans in Portugal since the mid-1990s: the 1998–2002 Health Strategy and the 2004–2010 Health Plan. The implementation of these Health Plans has been limited. In early 2012 it was decided that the priorities of the 2004–2010 Health Strategy (HIV, cardiovascular diseases, cancer, mental health) would be extended to include the following domains: diabetes, tobacco, healthy diet, respiratory diseases and stroke. In mid-2012, a 2012–2016 Health Plan was adopted, covering four main domains: citizenship and health, access and equity, quality in health, and healthy policies. However, this Health Plan does not focus specifically on the health effects of the current crisis; it is now in a very early stage of implementation and is not mentioned in the AP.

Implications for health system performance and health

Capturing process changes in the Portuguese health system is particularly difficult using current reporting from official sources. Nevertheless, many changes in health care processes have been reported through personal communications, formal and informal technical meetings and in the media.

To identify early effects of the crisis not yet apparent through routine health service data, two expert panels were convened during March 2013 (see Appendix 1) with the purpose of contributing and validating such evidence (Atkins et al., 2004; Weightman et al., 2005; Figueras, 2011). To note these panels' contributions, the note “expert panels” has been adopted in this text. The impact of the current crisis on the health system and health system performance are analysed in terms of (1) changes in health care-seeking behaviour, (2) effects on providers, and (3) disease burden (reviewed under the subsection on the impact on health).

4.1 Changes in health care-seeking behaviour

Detailed analysis of health services data cannot be easily undertaken because of uneven data quality and irregular collection procedures. Another caveat is that current data and level of analysis do not allow us to disentangle the relative contributions to changing health care-seeking behaviour of factors such as community impoverishment, increased user charges and transportation difficulties, and fear of unemployment as a result of sick leave or time spent in health care. The regional and local illustrations in this section have been selected on the basis of the data available and the technical credibility of the information sources, and also because they do not represent a particularly underprivileged section of the Portuguese population. It is also important to note that for primary care, data are automatically recorded and collected centrally, with great reliability, but hospital data are recorded manually, with some local and regional exceptions.

Bearing this in mind, official data reported at national level indicate a decrease in GP appointments of 3.6% from 2011 to 2012 (comparing the first 9 months of 2012 with a similar period in 2011). During the same time period, primary health care urgent attendances decreased by 27.9%, while hospital emergencies experienced a 9.1% reduction (ACSS, 2012a). Health authorities have recently noted a considerable increase in the number of missed NHS appointments (ACSS, 2013; Ministry of Health, 2013b). Moreover, patients are missing mental health care appointments because they cannot afford transportation costs, according to the National Mental Health Plan coordinator in March 2013 (Carvalho & Rodrigues, 2013).

A report by the Portuguese Health Regulatory Agency (2013b) based on a sample of 79 NHS primary health care organizations found that the average number of monthly medical attendances decreased between 2011 and 2012 by 9.2% (10.8% reduction for the less affluent who are exempt from user charges; 6.4% reduction for the non-exempt). Primary health care visits that did not require a medical consultation increased by 10%, but this increase was only observed for those exempt from user charge. This report also confirms the low contribution of user fees to health care financing in Portugal: 0.74% of NHS revenues in 2010, 0.95% in 2011 and 1.7% in 2012 came from user charges.

There was a slight increase in NHS-financed drug purchases between 2011 and 2012, associated with a substantial fall in both public and private expenditures on pharmaceuticals (Infarmed, 2013). However, there are some indications that certain patients are having difficulties accessing the drugs they need. It has been reported (expert panels) that the types of prescribed drug that patients more often fail to acquire are those associated with chronic conditions, such as those aimed at lowering cholesterol and hypertension, as well as antidepressants. Patients who cannot pay for prescribed medication are increasing and “this is a worrying situation that many health professionals feel in their workplaces” according to the President of the Social Services Professional Association in March 2013 (Carvalho & Rodrigues, 2013). In 2010, a law that granted a 100% state subsidy for antipsychotic drugs and other drugs associated with the treatment of a few serious mental health illnesses (such as schizophrenia, dementia, autism, major depression and bipolar disorder) was discontinued. These patients now have to pay 5–10% of the cost of treatment.

In May 2010, relatively early in the crisis, a Eurobarometer survey (European Commission, 2010) on monitoring the social impact of the economic crisis through public perceptions reported that 61% of Portuguese respondents stated that their ability to afford health care decreased during the past six months, compared with 79% of Greeks, 35% of Irish, and 7% of Swedes. In a 2009 Portuguese survey on mental health, 22% of respondents declared

non-adherence to treatment for financial reasons, with the most commonly skipped drugs being antidepressants, followed by antipsychotic drugs. This impact was higher in low socioeconomic classes (Frasquilho & Frasquilho, 2011).

In May 2012, among 980 Portuguese families surveyed on their well-being during the economic crisis (SEDES, 2012), 22.2% of respondents stated that they had had to reduce health care expenditures. For families with one or more members unemployed (20% of the families surveyed), 39.9% reported that they reduced health care expenditures.

Another study investigated the reported health care-seeking behaviour of the Portuguese population over 15 years of age (Pita Barros et al., 2013). Two analyses were performed on a representative sample (1254). The first of these approaches focused on the overall experience of the study population and found that 15.1% of those surveyed had experienced a situation where they did not acquire necessary pharmaceuticals and 8.7% reported not attending a necessary medical consultation, both because of lack of financial resources; 5.0% did not attend a necessary medical consultation because of transportation costs; while 6.0% did not attend an urgent medical consultation because they could not afford to lose one day of salary. The second approach focused on the respondent's last disease occurring between April 2012 and April 2013: 541 respondents (43.6%) reported that they experienced some sort of illness during this one-year study period. Of those reporting being ill, 74 (14%) did not seek medical attention, with a large majority of those 74 reporting not seeking medical care because they felt their illness was not serious enough to justify medical attention and five stating that they did not seek medical attention because of user charges. The authors estimate that this figure corresponds to 73 303 people in the overall study population.

Preliminary data from a northern region of Portugal (population 244 836) show that there was a 6.2% decrease for primary health care visits between 2011 and 2012, but this decrease in health service utilization was mainly observed for those exempt from user charges (9.4%). It was also observed in this region that there was a reduction in transportation expenditure associated with primary health care services of 24.0% between 2010 and 2011 and of 10.7% between 2011 and 2012. Data from this northern region of the country also show a 76% increase in referred cases for inpatient admissions between 2011 and 2012, which may be attributable to a worsening of the clinical situation of patients with mental health problems because of a lack of appropriate compliance with their therapeutic regimens (Barbosa, 2013).

In the Lisbon district, 10 GPs and 9 nurses from a family health unit performed a yearly "one day census" survey of its users, as part of its own self-evaluation process (Biscaia, 2013). Two questions related to the financial crisis were included in the 2012 and 2013 censuses. The 2012 survey took place in November; 173 users

were invited to participate, and 128 returned a usable questionnaire reflecting their experience during the first 10 months of 2012. Of those surveyed, 27.2% stated that they refrained from using health care services or taking pharmaceuticals during that time period. The 2013 survey took place in April 2013, reflecting users' experience during the first trimester of 2013 (132 users were invited to participate, with 104 returning usable questionnaires); here 17.6% reported that they refrained from using health services. It should be noted that in these samples the percentage of users having a university degree varied from 20 to 25%. Comparative data prior to 2012 are also not available.

4.2 Changes to health services and providers

Reductions in health professionals' remuneration since 2010 have led some health professionals to emigrate, retire early or transfer from the public to the private sector. It has been reported (expert panels) that such public to private shifts are mainly occurring in the larger metropolitan areas.

Patient and professional associations have occasionally reported (Silva, 2012) instances of what could be called “implicit rationing” in Portuguese health services. This may occur if health services operate with rapidly reduced budgets that require decreases in the volume of services. There is no current explicit policy towards rationing and, also, there are no systematic studies to confirm or deny these reports. Nevertheless, there has been a considerable debate on the issue of “rationalizations versus rationing” following a report of the National Commission of Medical Ethics (2012). More recently, a group of 20 well-known health experts, with the support of the pharmaceutical industry, came together in a three-year initiative (dubbed the “latitude initiative”) to discuss the use of pharmaceuticals in the current context.

It has been reported (expert panels) that a number of cost-shifting or revenue-generating practices have been observed, although whether these are direct consequences of the crisis is not possible to ascertain. Examples include transferring patients and costs unnecessarily from less renowned hospitals to more expensive specialized ones; delaying payment or shifting responsibility for paying for diagnostic or therapeutic procedures from one service to another; and referring patients back to health centres and then again to hospital care so the second appointments can be recorded as higher paid first appointments. The large number of measures to be implemented over a relatively short time period, monitored by the Troika every three months, requires a strong central command. Centrally issued directives, associated with across-the-board budget cuts and a new legislative norm prohibiting further indebtedness, all within a short time frame, leaves hospital managers in a delicate situation, which may lead to these sorts of practices.

According to the National Association of Pharmacies, the crisis and associated drug policies are having serious effects on pharmacy revenues (Cordeiro, 2012), with an estimated 600 pharmacies to close in 2013.

Slower implementation of primary health care reform has also been reported (expert panels) possibly through financial constraints. For example, during the first trimester of 2013 only one new family health unit was created (there are 357 such units in the country, covering about 50% of the Portuguese population). This is the lowest trimester implementation figure since 2006, although it should be noted that the creation of new family health units is voluntary and depends on the initiative of physicians. By the end of July 2013, 18 new units had been implemented. In 2010 and 2011 a total of 48 and 44 units, respectively, were created.

4.3 Impact on health

Before the crisis, Portugal had one of the highest rates of mental illness in the EU (WHO, 2009) and limited investment in preventive mental health services (Caldas de Almeida, 2009). There were also relatively high utilization rates for drugs that treat mental health conditions (OECD, 2011). Since the crisis, increases in anxiety and depression in Portugal have been reported by a number of different sources, including surveys of professionals' perceptions of changing morbidity associated with the current crisis (Portuguese Observatory on Health Systems, 2012) and GPs' clinical records. Preliminary data from a northern region of the country show that for a population group of 244 836 inhabitants, there was approximately a 30% increase in depression cases between 2011 and 2012 according to clinical records (Barbosa, 2013). While some of this increase may reflect improvements in reporting, it is unlikely that this explains the full increase.

Between 2011 and 2012, there was a 7.6% increase in sales of antidepressants and mood stabilizers and a 1.5% increase in sales of anxiolytic, sedative and hypnotic drugs in the ambulatory market (Infarmed, 2013). Anxiolytic prescriptions more than doubled between 2011 and 2012 among those aged 65 and older, while antidepressants and mood stabilizers almost doubled in the same period for this age group (Campos, 2013; Morato, 2013). The magnitude of this change seems unlikely to be attributable to reduced drug prices.

The number of suicides increased between 2009 and 2010 (Statistics Portugal, 2012) but a similar trend did not occur between 2010 and 2011 (Statistics Portugal, 2012). It is possible that suicides are underreported in Portugal (Directorate-General of Health, 2013). In Portugal, 14% of registered deaths are recorded as "ill defined", which is the second highest percentage in the EU). A 27% increase in the number of calls to the National Institute of Medical

Emergency Medicine related to suicidal behaviour occurred from January to July 2011 compared with the same period in 2012 (National Institute of Medical Emergency Medicine, 2013). The study using data from a northern region of Portugal also found the number of suicide attempts increased by 35% for men and 47% for women (Barbosa, 2013).

So far, there is no indication of worsening alcohol-related conditions but there is limited evidence of increased illegal drug consumption among unemployed drug addicts (Goulão, 2012).

The Portuguese older population has reported poorer health compared with those in other European countries (OECD, 2012a). Due to the crisis, younger families and family members are becoming financially dependent on their older parents. Under these circumstances, families may experience physical, emotional and financial problems (Lopes et al., 2012a,b).

Child poverty is also an issue of concern; the risk of poverty for children increased from 23% in 2010 to 26.8% in 2012 (Caritas Europa, 2013). It is known that chronic stress associated with adverse social conditions influences normal child development (Evans & Schamberg, 2009), affects parent–child relationships and affects the psychological well-being of adolescents (Solantaus, Leinonen & Punamaki, 2004; Currie et al. 2012). Portuguese children are already among the most obese in Europe (OECD, 2012b). Nevertheless, properly feeding children from impoverished families has become a new challenge. During Christmas 2012, school canteens were kept open to ensure that children from families with severe economic difficulties could have at least one acceptable meal. Over 3% of the population in 2012 was supported by Banco Alimentar (a food bank nongovernmental organization), representing an increase of 57% from 2006 to 2012 (Francisco Manuel dos Santos Foundation, 2013).

There may also be links between economic crisis and communicable disease (Rechel et al., 2011; Suhrcke, et al., 2011). Portugal has one of the lowest capacities for heating homes during winter among European countries (WHO Regional Office for Europe, 2012), which may play a role in winter mortality. In the first months of 2012, excess mortality associated with influenza and cold weather was reported in Portugal, as in many other European countries for those aged 65 and older. However, excess mortality in those aged 15–64 years only occurred in Portugal and Spain (Mazick et al., 2012). Hospital infections also require careful monitoring given budgetary cuts.

Finally, mortality from road accidents has been decreasing steadily during the 2000s. This pattern accelerated between 2011 and 2012, as there was a 20% decrease of motor car circulation volume and 16% decrease in mortality (European Commission, 2013b).

Discussion

The Portuguese health system has considered important reform initiatives over several decades, particularly after the democratization of Portuguese society in 1974. However, the implementation of these reforms has been relatively slow – and sometimes discontinuous. Difficulties in managing change in the health sector can be attributed to poor information for decision-makers, centralized command and control traditions, lack of policy continuity, key “good governance” limitations and influential stakeholders predominating over the common good. Such limitations are not specific to the health sector or Portuguese culture but they tend to reflect how imbedded health systems are in their social, economic, cultural and political environment.

5.1 Drivers of change

Between 2009 and 2011, political decisions were often reactive to the rapidly evolving financial crisis. The adoption of the AP resulted in a three-year plan for the health sector, becoming the key driver for health systems changes during this time period. Resistance to policy implementation by interested stakeholders and the political costs of some reforms for national decision-makers was considerably minimized by the “external and mandatory” nature of the AP. External pressure exercised during a limited period of time, unconcerned with eliciting and sustaining broad internal support, may be effective in changing those aspects of the health care system that can be singled out, are amenable to clearcut normative action and are perceived as unavoidable at that time. However, more complex transformative action usually requires sustained coordinated progress, involving many different domains and stakeholders, thus implying a reasonable degree of social acceptance.

5.2 Content and process of change

The health section of the AP contains a large number of positive measures, most of which have been previously identified as necessary, and whose implementation was long overdue. Two types of health measure can be found in the AP, aside from general austerity measures that can affect social determinants of health. The first are measures directly related to generating savings for the health budget, which focused on pharmaceuticals and hospitals. The second set pertained to a broad range of areas that lacked an explicit evidence base or a clear policy framework, including reforms in primary health care, information systems and patient transportation. There are also aspects of significant policy importance not referred to in the AP, such as health governance, health strategies, NHS organization development and improved health and social sector cooperation, particularly for long-term care.

There was a strong commitment by the Portuguese Government to implement the AP and to complement it with additional policy initiatives. Positive developments have been observed, including some degree of budget protection from 2013 onwards, efforts to address accumulated NHS debts, initiatives to improve equity by phasing out tax credits for private health care expenditure, reviews of state budget subsidies for public subsystems, and measures aimed at rationalizing health resources use and improving health services efficiency. In particular, pharmaceutical policies have led to significant savings. This is important for the financial sustainability of the NHS and has made pharmaceuticals less expensive for patients.

Primary health care accessibility has been addressed by a commitment to increase the primary care workforce and by successful negotiation with medical unions to increase GPs' patient lists from 1550 patients to an average of 1900. Substitution policies, such as the family nurse project and an initiative to shift some renal dialysis from health care units to home care, are at the design stage. A patient-centred health care information system is also at an experimental phase.

5.3 Implementation challenges

During the crisis, a large number of measures had to be implemented in a short time period, without consideration as to their optimal sequencing or to the implementation capacity of the Portuguese health administration. As a result, some initiatives may not have fully achieved their objectives. For example, reducing pharmaceutical drug prices through negotiations or administrative action can be implemented rapidly, but effectively changing drug prescription and use patterns may take more time. Increasing GP availability in health centres is necessary, but maintaining the pace and dynamics of the primary health care

reform and the required underlying social and professional consensus is also important. Rationalizing NHS resources is certainly an important contribution to improving sustainability, but worsening working conditions in the NHS may be counterproductive and undermine financial sustainability.

While efforts to generate savings in hospitals and pharmaceuticals have been generally accepted, one of the more controversial issues in the current reform programme is the extension of user charges. User charges have been adopted under the designation of “moderating fees” and justified in terms of their role in regulating access to health care. However, their actual moderating effect has not been rigorously evaluated. In addition, in the AP, these moderating fees (user charges) have been placed under the heading of “financing” and not “access regulation”. Given the fact that these user charges have been extended to almost all health care practices, including diagnostic tests in emergency departments, where there is no choice to defer treatment for those who require services, it seems that their underlying logic is essentially that of raising revenues.

There are several aspects of this policy that are open to question. First, doubling user charges at a time of severe economic and social crisis is certainly a problematic decision from a financial protection perspective. Second, while introducing means-tested exemptions protects the poor from user charges, it also reintroduces into the health system “poverty certificates”, which are more akin to “social assistance” than to the principle of universalism underpinning a national health system. Third, the transaction costs associated with user charges and processing different kinds of exemption have not been assessed. Lastly, doubling user charges does not make their contribution to NHS revenues any more significant. In order for user charges to make a significant contribution to the health budget beyond the current 1.7% (maintaining current exemption policies), these charges would have to reach high levels that would be politically unfeasible and would strongly affect health care access for both cost-effective and non-cost-effective care (Evans et al., 1993; Swartz, 2010; Glassman & Chalkidou, 2012).

5.4 Resilience in response to the crisis

Limitations in ascertaining the impact of the crisis on health and health systems

Identifying the health impacts of the current crisis depends on the quality of available information, active monitoring and sharing of relevant health data, adequate resources for analysing health data and the recognition that health effects may not occur immediately. It also depends on health authorities' willingness to report these effects. Most of these requirements for identifying the

health impact of the crisis have not been fulfilled at this time. In this context, while evidence on the impact of the crisis on mental health and health care-seeking behaviour is relatively well documented, at present, it is not possible to identify the relative contribution of impoverishment, increased user charges, transportation difficulties and unemployment risks.

Health in all policies

A major breakthrough for European public health was the recognition in the Maastricht Treaty (1992, article 129) that all public policies should be analysed before their implementation in terms of their effect on health. This notion was broadened and reinforced by the social clause of the Lisbon Treaty (2007). Moreover, Health in All policies is a key concept in the EU's 2007 European Health Strategy and was the subject of a reference publication during the 2007 Finnish Presidency of the EU. Despite this, there is no indication that social and health implications were considered in designing and adopting austerity programmes, including the Portuguese AP. This omission may have far-reaching consequences in that alternative policies that might be more likely to minimize negative health impacts may not have been considered. Monitoring systems to ensure that adverse health outcomes do not occur do not appear to have been put in place. In addition, local intersectoral health strategies to respond to deteriorating social determinants of disease and health have not been adopted.

Likewise, it is also difficult to identify the effects of budget cuts, salary reductions and changes in working conditions on health care processes. Nevertheless, more attention should be given to the importance of the health sector for the economy. For example, a study published by Health Cluster Portugal predicted that by 2020 the health system will produce €4 billion worth of health goods, (e.g. pharmaceuticals, information systems and equipment), 75% of which is expected to be exports (Cunha, 2012). Therefore, abrupt policy change may result in significant economic losses.

Conclusions

The current financial, economic and social crisis in Portugal resulted from a complex interplay of external and internal factors. While the government implemented a number of austerity measures before 2011, it was the adoption in mid-2011 of the three-year AP, negotiated with the Troika, that brought about more severe socioeconomic changes.

The health section of the AP contained a number of measures that had been called for before the crisis began. These measures were mostly focused on reducing health care costs, rationalizing the use of health resources and increasing revenues through mechanisms such as user charges. However, in many ways the AP did not consider the potential effects of austerity on health and health care. One of the more significant omissions of the AP was the lack of early health impact assessment of the crisis and associated austerity measures. With better monitoring, policy-makers could have designed adequate measures to minimize negative health effects. Moreover, adopting a transparent approach would have allowed for more evidence-based assessment of the true impact of the crisis on health.

Based on the limited data available by mid-2013, there seems to have been a negative impact of the crisis on mental health and health care-seeking behaviours, particularly among vulnerable groups. The likely impacts on alcohol and drug addiction and on acute and chronic conditions are more difficult to clearly ascertain at present. Moreover, identifying the relative contribution of impoverishment, increased user charges, transportation difficulties and unemployment concerns is not possible on the basis of the data that are currently available. Likewise, budget cuts, salary reductions and adverse working conditions for health managers and health care professionals are likely to have negative effects on health care processes.

There are many challenges for Portuguese society in the months and years ahead. Despite compliance by the government in implementing the AP and improvements in access to financial markets, public debt has been increasing substantially; private access to credit remains difficult; unemployment continues to be high; economic growth prospects are slim; and in this context the public deficit targets in line with the new European Treaty (Fiscal Compact) do not seem to be very realistic without further social hardship and cuts in public expenditure.

Placing health visibly on the public policy agenda, both nationally and at European level, through a comprehensive approach to public policies, looking explicitly at the intermingled effects of financial, economic and social policies, is a fundamental requirement for looking ahead towards a better future.

Appendix 1

Expert panels on impact on health and health systems

Two expert panels were convened on the impact of the socioeconomic crises, one on health and another on health systems, in order to complement existent information and assist in a more in-depth analysis and weighting of available evidence.

The panel on the health impacts met 5 March 2013 and included two practising medical public health experts, one from a northern part of the country and another from the centre–south; an endocrinologist coordinating the Portuguese Diabetes Observatory; a mental health expert engaged in research concerning the mental health effects of this crisis; an expert on the health of older people who had a nursing background, and a GP, coordinating a family health unit.

The panel on the health systems impact met 6 March 2013 and included the executive director of a health centre grouping, the basic organizational set up of primary health care in Portugal; two hospital administrators with a managerial background; a hospital director with a medical background; and a physician experienced in coordinating hospital emergency departments.

Panel members received advance information concerning the study objectives, process and questions included in the study framework regarding health and health systems impact, as well as the way panels were expected to operate.

The panel worked on the basis of a focus group approach, as follows.

1st round

Initial statement. Considering questions indicated above, each expert will make an initial statement, selecting those questions he/she feels more appropriate to address (on the basis of his/hers professional experience and knowledge).

Discussion. All other experts were invited to complement the initial statement from each expert.

Clarifications. At the end of this first round of statements, case study coordinators could ask for some further explanations and clarifications;

The panel members were informed that their statements could be based on one or more of the following information sources: personal experience or personal information from reliable sources, objective information from reliable sources, official reports and/or systematic studies.

2nd round

Final discussion. All experts were invited to a final statement on the issues discussed.

Reporting on the Panel findings

Reporting on the findings was carried out in several steps. After the Panel meeting, a summary report on the exercise (where contributions were not nominally attributed) was circulated to participants, for possible corrections or additions. All members were invited to respond to this request, even if only to state that no change were necessary.

A final Panel report was than prepared and its contents are reflected in sections 3 and 4 of the case study.

References

- ACSS (2012a). *Monitorização Mensal da Actividade Assistencial do SNS, 2012*. Lisbon, Administração Central do Sistema de Saude [Central Administration of the Health System, Ministry of Health].
- ACSS (2012b). *Utentes Isentos de Taxas Moderadoras [User charges data]*. Lisbon, Administração Central do Sistema de Saude [Central Administration of the Health System, Ministry of Health] (<http://www.acss.min-saude.pt/DownloadsePublica%C3%A7%C3%B5es/TabelaseImpressos/TaxasModeradoras/tabid/142/language/pt-PT/Default.aspx>, accessed 29 October 2014).
- ACSS (2013). Utentes faltam a um milhão de consultas por ano. *Jornal SOL*, 4 March (http://sol.sapo.pt/inicio/Sociedade/Interior.aspx?content_id=69330, accessed 3 November 2014).
- Atkins D et al (2004). Systems for grading the quality of evidence and the strength of recommendation I: critical appraisal of existing approaches. The GRADE Working Group. *BMC Health Services Research*, 4: 38.
- Barbosa AM (2013). O que faz e/ou pode fazer o SNS antes & depois do hospital. In: *Debate preparatório do 1.º Congresso da FSNS, A saúde dos portugueses: antes & depois do hospital*, Porto, Fundação para a Saúde, Serviço Nacional de Saúde.
- Biscaia A (2013). *Unidade de saúde familiar: um modelo positivo*. Braga, Fundação para a Saúde, Serviço Nacional de Saúde.
- Caldas de Almeida JM (2009). Portuguese national mental health plan (2007–2016) executive summary. *Mental Health and Family Medicine*, 6(4): 233–244.
- Campos A (2013). Receitas de ansiolíticos para idosos duplicaram. *Jornal Público*, 22 February (<http://www.publico.pt/portugal/jornal/receitas-de-ansioliticos-para-idosos-duplicaram-26105732>, accessed 3 November 2014).

Caritas Europa (2013). *The impact of the European crisis. A study of the impact of the crisis and austerity on people, with a special focus on Greece, Ireland, Italy, Portugal and Spain*. Brussels, Caritas Europa.

Carvalho A, Rodrigues F (2013). Doentes mentais estão a abandonar tratamento por falta de dinheiro. *Jornal Público*, 10 March (<http://www.publico.pt/portugal/jornal/doentes-mentais-estao-a-abandonar-tratamento-por-falta-de-dinheiro-26191140>, accessed 29 October 2014).

Cordeiro J (2012). Farmácias à beira da falência. *RTP*, 10 August (<http://www.rtp.pt/noticias/index.php?article=578145&tm=2&layout=123&visual=61>, accessed 29 October 2014).

Cunha J (2012). *As exportações do sector da saúde cresceram 8% em 2012*. Lisbon, Health Cluster Portugal.

Currie C et al., eds. (2012). *Social determinants of health and well-being among young people. Health Behaviour in School-aged Children (HBSC) study: international report from the 2009/2010 survey*. Copenhagen, WHO Regional Office for Europe, 2012 (Health Policy for Children and Adolescents, No. 6).

Directorate-General of Budget (2012a). *Orçamento do Estado 2013 [State budget 2013]*. Lisbon, Ministério das Finanças Direção-Geral do Orçamento.

Directorate-General of Budget (2012b). *Síntese da execução orçamental [Summary of execution of state budget]*. Lisbon, Ministério das Finanças Direção-Geral do Orçamento (<http://www.dgo.pt/execucaoorcamental/Paginas/Sintese-da-Execucao-Orcamental-Mensal.aspx?Ano=2012&Mes=Maio>, accessed 29 October 2014).

Directorate-General of Health (2013). *Departamento da Qualidade na Saúde [Department of Quality in Health]*. Lisbon, Directorate General of Health (www.dgs.pt/ms/8/default.aspx?id=5521, accessed 29 October 2014).

European Commission (2011). *Eurobarometer 2010*. Brussels, European Commission.

European Commission (2010). *Flash Eurobarometer 289: monitoring the social impact of the crisis – public perceptions in the European Union*. Brussels, European Commission,

European Commission (2013a). *Eurobarometer 2012*. Brussels, European Commission, 2012

European Commission (2013b). *Statistics, accidents data*. Brussels, European Commission Mobility and Transport, Road Safety (http://ec.europa.eu/transport/road_safety/specialist/statistics/index_en.htm, accessed 29 October 2014).

Eurostat (2013). *Unemployment statistics*. Luxembourg, Eurostat (http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Unemployment_statistics, accessed 29 October 2014).

Evans GW, Schamberg MA (2009). Childhood poverty, chronic stress, and adult working memory. *Proceedings of the National Academy of Sciences USA*, 106: 6545–6549.

Evans G, et al. (1993). *Who are the zombie masters, and what do they want?* Vancouver, Health Policy Research Unit, Centre for Health Services and Policy Research.

Figueras J (2011). *Health policy, getting evidence into practice. What is the evidence? What are the implications for Public Health?* Lisbon, European Observatory on Health Systems and Policies, 3 June (oral communication).

Francisco Manuel dos Santos Foundation (2013). *Conhecer a crise*. Lisbon, Fundação Francisco Manuel dos Santos (<http://www.conheceracrise.com>, accessed 29 October 2014).

Frasquilho MA, Frasilho D (2011). Impacto do contexto socio-económico na adesão ao tratamento psicofarmacológico. In: *Congresso da Associação Psiquiátrica Alentejana*.

Glassman, A, Chalkidou K (2012). *Priority-setting in health building institutions for smarter public spending*. London, Priority-Setting Institutions for Global Health Working Group, Centre for Global Development.

Goulão J (2012). Crise está a provocar 'fenómeno' de 'consumos de desespero' de drogas. *Jornal SOL*, 12 April (<http://www.sol.pt/noticia/46596>, accessed 29 October 2014).

Health Regulatory Authority (2013a). *Avaliação do acesso dos utentes aos cuidados continuados de saúde*. Lisbon, Entidade Reguladora da Saúde (https://www.ers.pt/uploads/writer_file/document/824/Cuidados_continuados.pdf, accessed 29 October 2014).

Health Regulatory Authority (2013b). *O novo regime jurídico das taxas moderadoras. Junho 2013*. Lisbon, Entidade Reguladora da Saúde (https://www.ers.pt/uploads/writer_file/document/892/Estudo_Taxas_Moderadoras.pdf, accessed 29 October 2014).

Infarmed (2011). *Análise mensal do mercado do medicamento [Monthly analysis of the pharmaceutical market]*. Lisbon, Ministério da Saúde Infarmed (http://www.infarmed.pt/portal/page/portal/INFARMED/MONITORIZACAO_DO_MERCADO/OBSERVATORIO/ANALISE_MENSAL_MERCADO, accessed 29 October 2014).

Infarmed (2012). *Análise mensal do mercado do medicamento [Monthly analysis of the pharmaceutical market]*. Lisbon, Ministério da Saúde Infarmed (http://www.infarmed.pt/portal/page/portal/INFARMED/MONITORIZACAO_DO_MERCADO/OBSERVATORIO/ANALISE_MENSAL_MERCADO), accessed 29 October 2014).

Infarmed (2013). *Análise mensal do mercado do medicamento [Monthly analysis of the pharmaceutical market]*. Lisbon, Ministério da Saúde Infarmed (http://www.infarmed.pt/portal/page/portal/INFARMED/MONITORIZACAO_DO_MERCADO/OBSERVATORIO/ANALISE_MENSAL_MERCADO), accessed 29 October 2014).

Instituto Europeu, Faculdade de Direito (2013). *Sondagem: atitude dos portugueses face à troika*. Lisbon, University of Lisbon.

Lopes M et al. (2012a). *Violência, abuso, negligência e condição de saúde dos idosos*. Lisbon, Directorate General of Health, University of Évora, New University of Lisbon and Escola National Institute of Public Health (<http://dspace.uevora.pt/rdpc/handle/10174/7231>), accessed 29 October 2014).

Lopes M et al. (2012b). *Violência sobre os idosos: um olhar sobre a atualidade*. In: *11 Conferência Internacional de Representações Sociais. As representações sociais em sociedades em mudança*, June.

Mazick A et al. (2012). Excess mortality among the elderly in 12 European countries, February and March 2012. *Eurosurveillance*, 17: 14.

Ministry of Health (2013a). *Custos com transportes de doentes diminuirão 39% nos últimos dois anos*. Lisbon, Ministério da Saúde (<http://www.portugal.gov.pt/pt/os-ministerios/ministerio-da-saude/mantenha-se-atualizado/20130430-ms-transporte-doentes.aspx>), accessed 29 October 2014).

Ministry of Health (2013b). *Utentes faltam a um milhão de consultas por ano [Users are missing a million visits per year]*. Lisbon, Ministério da Saúde (http://sol.sapo.ao/inicio/Sociedade/Interior.aspx?content_id=69330), accessed 29 October 2014).

Mourato P (2013). Consumo de ansiolíticos em maiores de 65 anos duplicou. *DN Portugal*, 21 February (http://www.dn.pt/inicio/portugal/interior.aspx?content_id=3065534&page=-1), accessed 3 November 2014).

National Commission of Medical Ethics (2012). *Parecer sobre um modelo de deliberação para financiamento do custo dos medicamentos*. Lisbon, Conselho Nacional de Ética Para as Ciências da Vida [National Commission of Medical Ethics].

National Institute of Medical Emergency Medicine (2013b). Tentativas de suicídio aumentam com a crise. *Jornal Público*, 7 January (<http://www.publico.pt/sociedade/noticia/tentativas-de-suicidio-aumentam-com-a-crise-1579762>, accessed 29 October 2014).

OECD (2011). *Health at a glance Europe 2011*. Paris, Organisation for Co-operation and Development (<http://www.oecd.org/health/health-systems/49105858.pdf>, accessed 5 November 2014).

OECD (2012a). *Health at a glance Europe 2012*. Paris, Organisation for Co-operation and Development (http://ec.europa.eu/health/reports/docs/health_glance_2012_en.pdf, accessed 5 November 2014).

OECD (2012b). *Health statistics*. Paris, Organisation for Co-operation and Development (<http://www.oecd.org/els/health-systems/health-data.htm>, accessed 5 November 2014).

OECD (2013a). *Country statistical profile: Portugal*. Paris, Organisation for Co-operation and Development (Key tables 10.1787/csp-prt-table-2013-2-en).

OECD (2013b). *Economics: key tables*. Paris, Organisation for Co-operation and Development (http://www.oecd-ilibrary.org/economics/economics-key-tables-from-oecd_2074384x, accessed 5 November 2014).

OECD (2014). *Demographic and economic indicators*. Paris, Organisation for Co-operation and Development.

Ordem dos Enfermeiros (2013). *Solicitação de Declarações das Diretivas Comunitárias*. Lisbon, Ordem dos Enfermeiros, 2013

Ordem dos Médicos (2013). *Pedidos de certificados para apresentar no estrangeiro*. Lisbon, Ordem dos Médicos, 2013

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

Pita Barros P et al. (2013). *Impacto das taxas moderadoras na utilização de serviços de saúde*. Lisbon, Nova School of Business and Economics (<http://www.acss.min-saude.pt/Portals/0/impacto-taxas-moderadoras-v3.pdf>, accessed 5 November 2014).

PORDATA (2013). *Health expenditure as a % of GDP in Europe*. Lisbon, PORDATA (<http://www.pordata.pt/en/Europe/Health+expenditure+as+a+percentage+of+GDP-1962>, accessed 29 October 2014).

Portuguese Insurance Institute (2011). *Estatísticas de Seguros*. Lisbon. Instituto de Seguros de Portugal (http://www.isp.pt/Estatisticas/seguros/estatisticas_anuais/historico/EstatSeguros2011.pdf, accessed 29 October 2014).

Portuguese Observatory on Health Systems (2012). *Crise e Saúde: Um país em sofrimento. Relatório de Primavera 2012*. Lisbon, Observatório Português dos Sistemas de Saúde (<http://dspace.uevora.pt/rdpc/handle/10174/7263>, accessed 29 October 2014).

Rechel B et al. (2011). Economic crisis and communicable disease control in Europe: a scoping study among national experts. *Health Policy*, 103(2–3): 168–175.

RNCCI (2012). *Relatório de monitorização do desenvolvimento e da actividade da Rede Nacional de Cuidados Continuados Integrados (RNCCI) 1 Semestre de 2012*. Lisbon, Ministério da Saúde (http://www.rncci.min-saude.pt/SiteCollectionDocuments/rev_relatorio_1_semestre_2012.pdf, accessed 29 October 2014).

SEDES (2012). *O Impacto da Crise no Bem-estar dos Portugueses*. Lisbon, Associação para o Desenvolvimento Económico e Social (<http://www.sedes.pt/multimedia/File/SEDES-lcc-Estudo.pdf>, accessed 29 October 2014).

Shurcke M et al. (2011). The impact of economic crises on communicable disease transmission and control: a systematic review of the evidence. *PLoS ONE*, 6: 6.

Silva JM (2012). Ordem dos Médicos confirma racionamento. *Expresso* 14 June (<http://expresso.sapo.pt/ordem-dos-medicos-confirma-acionamento=f732940>, accessed 29 October 2014).

Simões, J, Barros PP, Pereira J (2007). *A sustentabilidade financeira do serviço nacional de saúde*. Lisboa: Ministério da Saúde, 2007

Solantaus T, Leinonen J, Punamaki RL (2004). Children's mental health in times of economic recession: replication and extension of the family economic stress model in Finland. *Developmental Psychology*, 40(3): 412–429.

Statistics Portugal (2012). *Taxas de suicídio por 100 000 habitantes em Portugal*. Lisbon, Instituto Nacional de Estatística (<http://www.spsuicidologia.pt/sobre-o-suicidio/estatistica>, accessed 3 November 2014).

Statistics Portugal (2013). *Conta satélite da saúde*. Lisbon, Instituto Nacional de Estatística (http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_contas_nacionais&contexto=cs&selTab=tab3&perfil=97154797&INST=116634832&xlang=pt, accessed 29 October 2014).

Swartz K (2010). *Cost-sharing: effects on spending and outcomes*. Princeton, Robert Wood Johnson Foundation (<http://www.rwjf.org/en/research-publications/find-rwjf-research/2011/12/cost-sharing--effects-on-spending-and-outcomes.html>, accessed 3 November 2014).

Weightman A et al. (2005). *Grading evidence and recommendations for public health interventions: developing and piloting a framework*. London, Health Development Agency.

WHO (2009). *Health survey initiative*. Geneva, World Health Organization.

WHO Regional Office for Europe (2012). *Environmental health inequalities in Europe*. Copenhagen, WHO Regional Office for Europe.

WHO Regional Office for Europe (2014). *Global health observatory data repository*. Copenhagen, WHO Regional Office for Europe (<http://apps.who.int/gho/data/node.main.475?lang=en>, accessed 3 November 2014).

About the authors

Constantino Sakellarides is Emeritus Professor on Health Policies and Management, National School of Public Health, NOVA University of Lisbon.

Luis Castelo-Branco, Master in Pharmacy/Pharmaceutical Sciences, University of Coimbra, is a medical doctor at the Algarve Medical School.

Patrícia Barbosa, Master in Social Policies, Master in Public Health, is a doctoral student at the National School of Public Health, NOVA University of Lisbon.

Helda Azevedo, Master in Health Management, is a researcher at the Association for Health Innovation and Development.

