

# Health Systems in Transition

Vol. 12 No. 4 2010



**SESPAS**

SOCIEDAD ESPAÑOLA DE SALUD PÚBLICA  
Y ADMINISTRACIÓN SANITARIA

## Spain

### Health system review

Sandra García-Armesto  
María Begoña Abadía-Taira  
Antonio Durán  
Cristina Hernández-Quevedo  
Enrique Bernal-Delgado

Presidencia  
Española

*eu*

2010.ES

European

**Observatory**



on Health Systems and Policies

Cristina Hernández-Quevedo (Editor) and Elias Mossialos (Editor in chief) were responsible for this HiT profile

## Editorial Board

---

### Editor in chief

Elias Mossialos, London School of Economics and Political Science, United Kingdom

### Series editors

Reinhard Busse, Berlin University of Technology, Germany

Josep Figueras, European Observatory on Health Systems and Policies

Martin McKee, London School of Hygiene & Tropical Medicine, United Kingdom

Richard Saltman, Emory University, United States

### Editorial team

Sara Allin, University of Toronto, Canada

Matthew Gaskins, Berlin University of Technology, Germany

Cristina Hernández-Quevedo, European Observatory on Health Systems and Policies

Anna Maresso, European Observatory on Health Systems and Policies

David McDaid, European Observatory on Health Systems and Policies

Sherry Merkur, European Observatory on Health Systems and Policies

Philipa Mladovsky, European Observatory on Health Systems and Policies

Bernd Rechel, European Observatory on Health Systems and Policies

Erica Richardson, European Observatory on Health Systems and Policies

Sarah Thomson, European Observatory on Health Systems and Policies

Ewout van Ginneken, Berlin University of Technology, Germany

### International advisory board

Tit Albreht, Institute of Public Health, Slovenia

Carlos Alvarez-Dardet Díaz, University of Alicante, Spain

Rifat Atun, Global Fund, Switzerland

Johan Calltorp, Nordic School of Public Health, Sweden

Armin Fidler, The World Bank

Colleen Flood, University of Toronto, Canada

Péter Gaál, Semmelweis University, Hungary

Unto Häkkinen, Centre for Health Economics at Stakes, Finland

William Hsiao, Harvard University, United States

Alan Krasnik, University of Copenhagen, Denmark

Joseph Kutzin, World Health Organization Regional Office for Europe

Soonman Kwon, Seoul National University, Republic of Korea

John Lavis, McMaster University, Canada

Vivien Lin, La Trobe University, Australia

Greg Marchildon, University of Regina, Canada

Alan Maynard, University of York, United Kingdom

Nata Menabde, World Health Organization Regional Office for Europe

Ellen Nolte, Rand Corporation, United Kingdom

Charles Normand, University of Dublin, Ireland

Robin Osborn, The Commonwealth Fund, United States

Dominique Polton, National Health Insurance Fund for Salaried Staff (CNAMTS), France

Sophia Schlette, Health Policy Monitor, Germany

Igor Sheiman, Higher School of Economics, Russian Federation

Peter C. Smith, Imperial College, United Kingdom

Wynand P.M.M. van de Ven, Erasmus University, The Netherlands

Witold Zatonski, Marie Skłodowska-Curie Memorial Cancer Centre, Poland

# Health Systems in Transition

**Sandra García-Armesto**, *Institute for Health Sciences in Aragón (I+CS),  
SESPAS-Health Services Research Section*

**María Begoña Abadía-Taira**, *Institute for Health Sciences in Aragón (I+CS),  
SESPAS-Health Services Research Section*

**Antonio Durán**, *Técnicas de Salud*

**Cristina Hernández-Quevedo**, *European Observatory on Health Systems  
and Policies, LSE Health*

**Enrique Bernal-Delgado**, *Institute for Health Sciences in Aragón (I+CS),  
SESPAS-Health Services Research Section*

## Spain:

## Health System Review 2010



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

**Keywords:**

DELIVERY OF HEALTH CARE

EVALUATION STUDIES

FINANCING, HEALTH

HEALTH CARE REFORM

HEALTH SYSTEM PLANS – organization and administration

SPAIN

© World Health Organization 2010, on behalf of the European Observatory on Health Systems and Policies

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.

Please address requests about the publication to:

**Publications,  
WHO Regional Office for Europe,  
Scherfigsvej 8,  
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/en/what-we-publish/publication-request-forms>).

The views expressed by authors or editors do not necessarily represent the decisions or the stated policies of the European Observatory on Health Systems and Policies or any of its partners.

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 or any of its partners concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Where the designation “country or area” appears in the headings of tables, it covers countries, territories, cities, or areas. 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.

The European Observatory on Health Systems and Policies does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

Printed and bound in the United Kingdom.

**Suggested citation:**

García-Armesto S, Abadía-Taira MB, Durán A, Hernández-Quevedo C, Bernal-Delgado E. Spain: Health system review. *Health Systems in Transition*, 2010, 12(4):1–295.

# Contents

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Preface</b> .....                                    | <b>v</b>    |
| <b>Acknowledgements</b> .....                           | <b>vii</b>  |
| <b>List of abbreviations</b> .....                      | <b>ix</b>   |
| <b>List of tables, figures and boxes</b> .....          | <b>xiii</b> |
| <b>Abstract</b> .....                                   | <b>xix</b>  |
| <b>Executive summary</b> .....                          | <b>xxi</b>  |
| <br>                                                    |             |
| <b>1. Introduction</b> .....                            | <b>1</b>    |
| 1.1 Geography and sociodemography .....                 | 1           |
| 1.2 Economic context .....                              | 4           |
| 1.3 Political context .....                             | 9           |
| 1.4 Health status .....                                 | 14          |
| <br>                                                    |             |
| <b>2. Organizational structure</b> .....                | <b>37</b>   |
| 2.1 Overview of the health system .....                 | 37          |
| 2.2 Historical background: devolution's path .....      | 38          |
| 2.3 Organizational overview .....                       | 49          |
| 2.4 Patient empowerment .....                           | 65          |
| <br>                                                    |             |
| <b>3. Financing</b> .....                               | <b>75</b>   |
| 3.1 Health expenditure .....                            | 75          |
| 3.2 Population coverage and basis for entitlement ..... | 90          |
| 3.3 Revenue collection/sources of funds .....           | 94          |
| 3.4 Allocation to purchasers .....                      | 102         |
| 3.5 Purchasing and purchaser–provider relations .....   | 103         |
| 3.6 Payment mechanisms .....                            | 105         |
| <br>                                                    |             |
| <b>4. Regulation and planning</b> .....                 | <b>111</b>  |
| 4.1 Regulation .....                                    | 111         |
| 4.2 Planning and health information management .....    | 128         |

|                                                                      |            |
|----------------------------------------------------------------------|------------|
| <b>5. Physical and human resources</b> .....                         | <b>137</b> |
| 5.1 Physical resources .....                                         | 137        |
| 5.2 Human resources .....                                            | 159        |
| <b>6. Provision of services</b> .....                                | <b>179</b> |
| 6.1 Public health .....                                              | 179        |
| 6.2 Patient pathways .....                                           | 191        |
| 6.3 Primary/ambulatory care .....                                    | 193        |
| 6.4 Secondary/inpatient care .....                                   | 202        |
| 6.5 Emergency care .....                                             | 209        |
| 6.6 Pharmaceutical care .....                                        | 211        |
| 6.7 Rehabilitation/intermediate care .....                           | 217        |
| 6.8 Long-term and social care .....                                  | 217        |
| 6.9 Palliative care .....                                            | 223        |
| 6.10 Mental health care .....                                        | 224        |
| <b>7. Principal health care reforms</b> .....                        | <b>233</b> |
| 7.1 Analysis of recent reforms .....                                 | 233        |
| 7.2 Future developments .....                                        | 244        |
| <b>8. Assessment of the health system</b> .....                      | <b>247</b> |
| 8.1 Introduction .....                                               | 247        |
| 8.2 How does the SNS perform? .....                                  | 248        |
| 8.3 How is performance within the country? .....                     | 255        |
| 8.4 Challenges for SNS governance: what do stakeholders think? ..... | 269        |
| <b>9. Conclusions</b> .....                                          | <b>271</b> |
| <b>10. Appendices</b> .....                                          | <b>277</b> |
| 10.1 References .....                                                | 277        |
| 10.2 Useful web sites .....                                          | 286        |
| 10.3 Principal legislation .....                                     | 288        |
| 10.4 HiT methodology and production process .....                    | 291        |
| 10.5 The review process .....                                        | 294        |
| 10.6 About the authors .....                                         | 294        |

## Preface

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

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

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

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

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

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

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

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



## Acknowledgements

The Health System in Transition (HiT) profile on Spain was co-produced by the European Observatory on Health Systems and Policies, the Spanish Association of Public Health and Health Care Administration (*Sociedad Española de Salud Pública y Administración Sanitaria*, SESPAS) and the Institute for Health Sciences in Aragón (*Instituto Aragonés de Ciencias de la Salud*, I+CS).

SESPAS and the I+CS are the National Lead Institution (NLI) for Spain. The Observatory runs an NLI network and works with each NLI to co-produce jointly owned HiTs for their country. The HiT is published using the standard methodology of the Observatory series. It benefits from the national knowledge and expertise, research inputs and networks of the NLI. The NLIs are selected on the strength of their health services and public health background.

SESPAS is a confederation of 11 scientific and professionals' associations, with legal status. It is made up of seven national thematic associations (Spanish Association of Epidemiology, SEE; Spanish Health Economics Association; Health Jurists Association, AJS; Spanish Environmental Health Association, SESA; Spanish Primary Care Network, REAP; Spanish Association of Psychiatric Epidemiology, SEEP; Community Nursing Association, AEC) and four regional associations (Catalonia and Balearic Public Health Association, SSPCiB; Andalusian Public Health Association, HIPATIA; Canary Islands Public Health Association, SCSP; and Public Health and Health Care Administration Association of Madrid, AMAS). Through its associations, SESPAS encompasses 3800 public health professionals from varied backgrounds, experiences, institutions and geographical areas. SESPAS issues biennial public health reports and hosts several thematic working groups or sections: health planning; gender and health and health services research.

This edition of the HiT on Spain was written by Sandra García-Armesto, María Begoña Abadía-Taira and Enrique Bernal-Delgado, all based at the Health Services Research and Health Policy Unit at the I+CS and members of SESPAS-Health Services Research Section, and Antonio Durán (Técnicas de Salud). It was edited

by Cristina Hernández-Quevedo (European Observatory on Health Systems and Policies, LSE Health). The Research Director for the HiT was Elias Mossialos. The European Observatory on Health Systems and Policies is especially grateful to Javier Carnicero, Mercedes Alfaro, Concha Colomer, Pablo Rivero, Ildefonso Hernández and Alberto Infante for reviewing the report and for their important contributions, and to the Institute I+CS for its key contribution to the production of the new HiT for Spain.

This edition draws upon sections of the first HiT on Spain (2000) by Ana Rico and Ramón Sabés. The current text on geographical and political context, and the historical background of the SNS, owes greatly to the corresponding sections in the 2000 report.

The authors greatly benefited from the detailed comments, suggestions and information provided by José Ramon Repullo (National School of Public Health), Andreu Segura (Institute of Health Studies Regional Government of Catalonia, IES), Rosa Urbanos (Complutense University of Madrid) and Joan Ramon Villalbí (Public Health Agency of Barcelona). None of these individuals or organizations is responsible for the authors' interpretation or any remaining errors. Special thanks are also due to Manuel Ridao, Natalia Martínez and Joaquín Beltrán (I+CS) for their contribution to the analysis based on the Medical Practice Variation Atlas presented in Chapter 8 and to Rosa Sáez and Miriam Seral for editing the supporting charts.

Special thanks are extended to the stewards of the WHO Regional Office for Europe Health for All databases, from which data on health services were extracted; to the OECD for the data on health services, economic performance and health indicators in Spain and western Europe. Thanks are also due to National Institute of Statistics and the SNS National Health Information Institute for providing a range of important national data.

This HiT uses “EU15” to refer to the 15 countries joining the EU before May 2004; “EU12” refers to the 12 countries joining in May 2004 and January 2007; and “EU27” when referring to all 27 Member States as of 2009. The HiT reflects data available as of late 2009, unless otherwise indicated.

The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Ireland, Finland, the Netherlands, Norway, Slovenia, Spain, Sweden and the Veneto Region of Italy, the European Commission, the European Investment Bank, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine. The Observatory team working on the HiTs is led by Josep Figueras (Director), Elias Mossialos (Co-director), and Martin McKee, Reinhard Busse and Richard Saltman (heads of the research hubs).

## List of abbreviations

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
| AATM             | Catalan Technology Assessment and Medical Research Agency                           |
| AC               | Autonomous Community                                                                |
| AES              | Strategic Action on Health                                                          |
| AETS             | Health Technologies Assessment Agency                                               |
| AETSA            | Andalucian Health Technologies Assessment Agency                                    |
| AIDS             | Acquired immunodeficiency syndrome                                                  |
| ALI              | Particle accelerator                                                                |
| AUnETS           | Platform of HTA agencies                                                            |
| AVALIA-T         | Galician Health Technologies Assessment Agency                                      |
| BHZ              | Basic health zone                                                                   |
| CAIBER           | Consortium for the Support of Network Biomedical Research                           |
| C&Q              | Cohesion and Quality                                                                |
| CARK             | Central Asian republics and Kazakhstan                                              |
| CAT              | Computerized axial tomography                                                       |
| CERMI            | National Committee of People with Disabilities                                      |
| CGCOF            | General Council of Pharmacists Colleges                                             |
| CHC              | Catalan Hospital Consortium                                                         |
| CIBER            | Network Centres of Biomedical Research                                              |
| CIS              | Centre for Sociological Research                                                    |
| CIS (in figures) | Commonwealth of Independent States                                                  |
| CISNS            | Inter-territorial Council of the national health system                             |
| CMBD             | Minimum Hospital Data Set                                                           |
| COMBIOMED        | Network of cooperative research on computational medicine                           |
| COPD             | Chronic obstructive pulmonary disease                                               |
| CREIS            | National Centre for Health Impact Assessment                                        |
| CSIC             | Consejo Superior de Investigaciones Científicas (Spanish National Research Council) |
| CSUR-SNS         | SNS reference centre/service/unit                                                   |
| CTS              | Computer tomography scans                                                           |
| DALE             | Disability-adjusted life expectancy                                                 |
| DMFT             | Decayed, missing and filled teeth                                                   |
| DRG              | Diagnosis-related group                                                             |
| DSA              | Digital subtraction angiography                                                     |

|           |                                                                               |
|-----------|-------------------------------------------------------------------------------|
| EBA       | Associative-based entities                                                    |
| eCR       | Electronic clinical record                                                    |
| EDADES    | Domiciliary Survey on Alcohol and Drugs in Spain                              |
| EEA       | European Economic Agreement                                                   |
| EFPIA     | European Federation of Pharmaceutical Industry and Associations               |
| EFQM      | European Foundation for Quality Management                                    |
| EMCDDA    | European Monitoring Centre for Drugs and Drug Addiction                       |
| ENCYT     | National Strategy for Science and Technology                                  |
| ENSE      | Spanish National Health Survey                                                |
| ERCHA     | European regulation on chemical agents                                        |
| ESCRI     | National Survey of Inpatient Care Premises                                    |
| ESWL      | Extracorporeal shock wave lithotripsy                                         |
| EU        | European Union                                                                |
| EU12      | Countries that joined the EU in May 2004 and January 2007                     |
| EU15      | EU Member States before May 2004                                              |
| EU27      | All current EU Member States                                                  |
| FADSP     | Federation of Associations for the Defence of the Public Health Care System   |
| FCI       | Inter-territorial Compensation Fund                                           |
| FEDIFAR   | Spanish Pharmaceutical Distribution Companies Association                     |
| FIPSE     | Foundation for AIDS Research and Prevention in Spain                          |
| FIS       | National Health Research Fund                                                 |
| FTE       | Full-time equivalent                                                          |
| GAM       | Gammagraphy                                                                   |
| GATT      | General Agreement on Tariffs and Trade                                        |
| GDP       | Gross domestic product                                                        |
| GESIDA    | AIDS Study Group                                                              |
| GHQ-12    | 12-item General Health Questionnaire                                          |
| GP        | General practitioner                                                          |
| GuíaSalud | SNS Clinical Guidelines Development, Assessment and Dissemination             |
| HALE      | Health-adjusted life expectancy                                               |
| HEM       | Haemodynamics                                                                 |
| HIV       | Human immunodeficiency virus                                                  |
| HP        | Health plan                                                                   |
| HTA       | Health technology assessment                                                  |
| ICD       | International Classification of Diseases                                      |
| ICD-9-CM  | International Classification of Diseases, 9th Revision, Clinical Modification |
| ICS       | Catalan Institute of Health                                                   |
| ICSAAD    | Inter-territorial Council of the SAAD                                         |
| ICT       | Information and communication technologies                                    |
| ICU       | Intensive care unit                                                           |
| IEF       | Institute of Fiscal Studies                                                   |
| IGAE      | General Comptroller of the State Administration                               |

|          |                                                                       |
|----------|-----------------------------------------------------------------------|
| IHD      | Ischaemic heart disease                                               |
| IMF      | International Monetary Fund                                           |
| IMSERSO  | National Institute of the Elderly and Social Services                 |
| INAHTA   | International Network of Agencies for HTA                             |
| INCLASNS | Set of Key Indicators for the SNS                                     |
| INE      | National Institute of Statistics                                      |
| INGESA   | National Institute of Health Management                               |
| INP      | National Institute of Social Insurance                                |
| INSALUD  | National Institute of Health                                          |
| ISFAS    | Social Institute for the Armed Forces                                 |
| IT       | Information technology                                                |
| ITE      | State tax revenue                                                     |
| IU       | United Left                                                           |
| LAB      | Laboratory information system                                         |
| LE       | Life expectancy                                                       |
| LGS      | Health Care General Act                                               |
| LMO      | Local medical office                                                  |
| LOFAGE   | Organic Law on new management formulas in public administration       |
| LOFCA    | Organic Law on the financing system of the ACs                        |
| LOPS     | Law on health professions                                             |
| MAS      | Major ambulatory surgery                                              |
| MIR      | Medical resident interns programme                                    |
| MITC     | Ministry of Industry, Tourism and Commerce                            |
| MRI      | Magnetic resonance imaging                                            |
| MSPS     | Ministry of Health and Social Policy                                  |
| MUFACE   | Mutual Fund for State Civil Servants                                  |
| MUGEJU   | General Justice Mutual Company                                        |
| NAOS     | Strategy for Nutrition, Physical Activity and Obesity Prevention      |
| NATO     | North Atlantic Treaty Organization                                    |
| NGO      | Nongovernmental organization                                          |
| NMR      | Nuclear magnetic resonance                                            |
| OECD     | Organisation for Economic Co-operation and Development                |
| OMC      | Medical Colleges Organization                                         |
| OOP      | Out-of-pocket (payment)                                               |
| OSTEBA   | Basque Health Technologies Assessment Service                         |
| PACS     | Picture archiving and communications system                           |
| PCT      | Primary care team                                                     |
| PET      | Positron emission tomography                                          |
| PFI      | Private finance initiative                                            |
| PP       | People's Party                                                        |
| PPP      | Purchasing power parity                                               |
| PREDIMED | Network of healthy diet in the primary prevention of chronic diseases |

|           |                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------|
| PSC       | Catalan Socialist Party                                                                             |
| PSOE      | Spanish Socialist Workers' Party                                                                    |
| PTCA      | Percutaneous transluminal coronary angioplasty                                                      |
| R&D       | Research and Development                                                                            |
| R&D+I     | Research, Development and Innovation                                                                |
| RECAVA    | Network of risk factors, evolution and treatment of cardiovascular diseases and mechanisms involved |
| REDIAP    | Network of research on preventive activities and health promotion in primary care                   |
| REDINREN  | Network of research on kidney diseases                                                              |
| REDINSCOR | Network of heart failure                                                                            |
| REEM      | Network of multiple sclerosis                                                                       |
| REIPI     | Network of research on infectious diseases                                                          |
| RENEVAS   | Neurovascular network                                                                               |
| RETICEF   | Network of cooperative research on ageing and fragility                                             |
| RETICS    | Thematic Networks of Cooperative Research in Health                                                 |
| RICET     | Network of tropical diseases                                                                        |
| RIRAAF    | Network of research on adverse reactions to allergens and drugs                                     |
| RIS       | Management system for radiology                                                                     |
| SAAD      | National System for Autonomy and Assistance for Situations of Dependency                            |
| SAP       | Patient Support Services                                                                            |
| SDQ       | Strengths and Difficulties Questionnaire                                                            |
| SECPAL    | Spanish Society of Palliative Care                                                                  |
| SEMFYC    | Spanish Society of Family and Community Medicine                                                    |
| SERMAS    | Madrid Regional Health Service                                                                      |
| SESPAS    | Spanish Society of Public Health and Health Management                                              |
| SHI       | Social health insurance                                                                             |
| SIAE      | National Information System on Specialized Care                                                     |
| SIAP      | National primary health care information system                                                     |
| SISAL     | Occupational health information system                                                              |
| SNS       | Spanish national health system                                                                      |
| STID      | Sexually transmitted infectious disease                                                             |
| SVS       | Valencia Health Service                                                                             |
| TIS       | Health Identity Cards                                                                               |
| UAU       | User Complaint Units                                                                                |
| UCD       | Union of the Democratic Centre                                                                      |
| UCH       | Union of Catalan Hospitals                                                                          |
| UHdD      | Day-hospital units                                                                                  |
| UNESPA    | Spanish Union of Insurance and Reinsurance Institutions                                             |
| UPA       | Weighted health care unit                                                                           |
| VAT       | Value added tax                                                                                     |
| VHI       | Voluntary health insurance                                                                          |
| WHO       | World Health Organization                                                                           |
| WTO       | World Trade Organization                                                                            |
| XHUP      | Catalan Hospital Network of Public Utilization                                                      |

# List of tables, figures and boxes

| <b>Tables</b> |                                                                                                          | page |
|---------------|----------------------------------------------------------------------------------------------------------|------|
| Table 1.1     | Main population/demographic indicators, 1970–2008, selected years                                        | 3    |
| Table 1.2     | Annual GDP growth for Spain, 1994–2008                                                                   | 5    |
| Table 1.3     | Macroeconomic indicators in 2008                                                                         | 5    |
| Table 1.4     | Mortality and health indicators in Spain, 1970–2007, selected years                                      | 14   |
| Table 1.5     | Main causes of death, 1970–2005, selected years (SDRs, all ages, per 100 000)                            | 15   |
| Table 1.6     | Factors affecting health status in Spain, 1970–2006, selected years                                      | 20   |
| Table 1.7     | DALE and estimated life expectancy, 1999–2007                                                            | 22   |
| Table 1.8     | Composition by age group of the non-institutionalized population with disability, 1999 and 2008          | 23   |
| Table 1.9     | General health status indicators: a comparison between Spanish and foreign residents                     | 28   |
| Table 1.10    | DMFT at age 12 years (mean value)                                                                        | 29   |
| Table 1.11    | Levels of child immunization in Spain, 1985–2007, selected years                                         | 29   |
| Table 1.12    | Main maternal and child indicators in Spain, 1960–2007                                                   | 31   |
| Table 1.13    | Main maternal and child indicators in Europe (EU15 countries), 2000–2007                                 | 32   |
| Table 1.14    | Prevalence of live births among women aged 35 years and over for 15 European countries (EU15), 2000–2005 | 34   |
| Table 1.15    | Number of abortions in Spain, 1992–2007                                                                  | 35   |
| Table 2.1     | Distribution of competences in the SNS                                                                   | 49   |
| Table 2.2     | Reported activity of the CISNS in 2008                                                                   | 51   |
| Table 2.3     | Types of health coverage by AC (%)                                                                       | 61   |
| Table 2.4     | Patients' or citizens' satisfaction with health care and/or the health system                            | 70   |
| Table 2.5     | Trends in the number of patients being treated outside the region of residence and its cost              | 72   |
| Table 2.6     | Trends in the number of foreign patients being discharged from SNS hospitals and its cost per AC         | 73   |
| Table 3.1     | Trends in health care expenditure in Spain, 1980                                                         | 77   |
| Table 3.2     | ACs' expenditure per person protected and annual increase, 2007–2009                                     | 82   |
| Table 3.3     | Public health expenditure by function in euros, 2000–2007                                                | 86   |
| Table 3.4a    | Pharmaceutical public expenditure on prescriptions across ACs, 2002–2008 (million euros)                 | 88   |
| Table 3.4b    | Annual changes in pharmaceutical public expenditure on prescription across ACs, 2002–2008 (% increase)   | 88   |

|            |                                                                                                                        |     |
|------------|------------------------------------------------------------------------------------------------------------------------|-----|
| Table 3.5  | Increments in number of prescriptions funded by the SNS and in the average public expenditure per prescription in 2008 | 89  |
| Table 3.6  | Capital expenditure per protected person across ACs, 2007–2009                                                         | 89  |
| Table 3.7  | Share (%) of health budgets over general budget across ACs, 2003–2005                                                  | 98  |
| Table 3.8  | Household global OOP expenditure related to health care and specific pharmaceuticals expenditure                       | 101 |
| Table 3.9  | Indicators of VHI business volume in Spain, 2000–2006                                                                  | 102 |
| Table 3.10 | UPA-type weighting health care units for hospital contracts                                                            | 107 |
| Table 3.11 | Selected health professionals' annual salaries and variation across ACs, 1999–2004                                     | 109 |
| Table 3.12 | Public hospital doctors' and public health care doctors' annual salaries (euros), by type of dedication and contract   | 110 |
| Table 4.1  | Formulas for providers under direct management in the SNS                                                              | 118 |
| Table 4.2  | HP by ACs                                                                                                              | 128 |
| Table 4.3  | Instruments for the enhancement of cooperative research structure and networks by the end of 2008                      | 135 |
| Table 5.1  | Variation in the distribution of structural resources per health area across Spain, 2008                               | 139 |
| Table 5.2  | Organization and distribution of primary health care structure per AC, 2008                                            | 139 |
| Table 5.3  | Beds mix in acute care hospitals, psychiatric hospitals and long-term care institutions in Spain, 1980–2006            | 141 |
| Table 5.4  | Variation in the number of beds available by function and sector, 2000–2007                                            | 142 |
| Table 5.5  | Number of hospitals and bed rates per AC, 2007                                                                         | 143 |
| Table 5.6  | Size and distribution of hospitals and beds, 2008                                                                      | 145 |
| Table 5.7  | Items of functioning diagnostic imaging technologies per 1 000 population, 2005 and 2008                               | 147 |
| Table 5.8  | High-technology equipment per AC ranked by population, January 2008                                                    | 148 |
| Table 5.9  | Evolution along time of utilization of selected high-technology tests and rates per 1 000 population                   | 148 |
| Table 5.10 | Diagnostic tests rates per 1 000 inhabitants across ACs performed in public and private sector in 2007                 | 150 |
| Table 5.11 | Medical technology per million inhabitants in selected OECD countries, 2007                                            | 151 |
| Table 5.12 | Internet use and health-related Internet use, 2009                                                                     | 152 |
| Table 5.13 | Health care personnel in Spain per 100 000 population, 1980–2007, selected years                                       | 159 |
| Table 5.14 | SNS human resources in primary health care and ratio of protected population assigned per professional, 2008           | 162 |
| Table 5.15 | Human resources in hospital health care and ratio per 1 000 inhabitants, 2007                                          | 163 |
| Table 5.16 | Relative distribution of specialties among doctors working in hospital health care                                     | 164 |
| Table 5.17 | Evolution in the number of pharmacies                                                                                  | 177 |
| Table 6.1  | AIDS cases per million inhabitants and year of diagnosis, 2006–2008                                                    | 184 |
| Table 6.2  | Vaccine-preventable diseases, reported cases and rates per 100 000 inhabitants, 2006–2008                              | 186 |
| Table 6.3  | Smoking, percentage distribution among population aged 16 and over, 2001 and 2006/2007                                 | 188 |
| Table 6.4  | Primary health care activity: medical consultations, emergency care and attendance rate per inhabitant, 2007–2008      | 194 |
| Table 6.5  | Hospitalizations in SNS hospitals by ICD-9-CM main groups and gender, total and rate per 10 000 inhabitants in 2007    | 205 |



|            |                                                                                                                                                                  |     |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Table 6.6  | Medical, surgical and obstetric activity in hospitals and specialist care centres, total, rate per 1 000 inhabitants and percentage funded by the SNS, 2005–2007 | 206 |
| Table 6.7  | Evolution of hospital discharge rates between 2000 and 2007 (ICD all causes/100 000 population), EU15 countries ranked by 2005 rates                             | 206 |
| Table 6.8  | Evolution of availability of day-hospital beds, 1997–2007                                                                                                        | 209 |
| Table 6.9  | Stakeholders in the Spanish regulation process                                                                                                                   | 213 |
| Table 6.10 | Medicine price structure (% share of different stakeholders)                                                                                                     | 215 |
| Table 6.11 | Scales of cash transfers for the implementation of SAAD financial benefits, January 2009                                                                         | 220 |
| Table 6.12 | SAAD applications, assessments, positive verdicts and actual assignment of benefits across ACs, January 2010                                                     | 220 |
| Table 6.13 | Distribution of applications as a percentage of population across ACs, January 2010                                                                              | 221 |
| Table 6.14 | Proportion of applications assessed, results of the assessment and actual assignment of benefits across ACs                                                      | 222 |
| Table 6.15 | Evolution of functioning long-term care beds                                                                                                                     | 222 |
| Table 6.16 | SNS Mental Health Strategy, 2007–2009 indicators                                                                                                                 | 229 |
| Table 6.17 | Mental health care community-based network: distribution of resources, 2007                                                                                      | 230 |
| Table 6.18 | Mental health care hospital-based network: distribution of resources, 2007                                                                                       | 231 |
| Table 7.1  | Impact of the Sufficiency Funds on ACs' per capita allowance related to the national average                                                                     | 240 |
| Table 8.1  | Avoidable mortality in Spain, 1991–2005                                                                                                                          | 249 |
| Table 8.2  | Health care indicators in Spain: comparison with OECD average performance                                                                                        | 249 |
| Table 8.3  | Patient safety rates in selected OECD countries                                                                                                                  | 250 |
| Table 8.4  | Concentration indexes in six procedures                                                                                                                          | 258 |
| Table 8.5  | Technical efficiency in acute hospitals                                                                                                                          | 268 |
| Table 8.6  | Stakeholders' predictions about expected changes                                                                                                                 | 270 |
| Table 8.7  | Stakeholders' predictions about changes not expected to happen                                                                                                   | 270 |

## Figures

|           | page                                                                                                                              |     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------|-----|
| Fig. 1.1  | Territorial organization of Spain: autonomous communities (ACs)                                                                   | 2   |
| Fig. 1.2  | Foreign residents in Spain, 2000–2008                                                                                             | 4   |
| Fig. 1.3  | Trends in annual growth rate of real GDP, Spain and EU27, 2000–2008                                                               | 5   |
| Fig. 1.4  | Relative GDP per capita in ACs, 2008 (Spain = 100)                                                                                | 6   |
| Fig. 1.5  | Employment by sector in Spain, 2008                                                                                               | 7   |
| Fig. 1.6  | Latest trends in unemployment rate (%) by sex                                                                                     | 8   |
| Fig. 1.7  | Geographical distribution of unemployment rate (%), 2008                                                                          | 9   |
| Fig. 1.8  | Standardized mortality rate by selected causes in EU countries, latest available year (2004–2007)                                 | 16  |
| Fig. 1.9  | Age-standardized mortality rate by some selected causes per AC, 2006                                                              | 18  |
| Fig. 1.10 | Annual incidence of AIDS in Spain by sex and means of transmission, 1984/1988–2008                                                | 24  |
| Fig. 1.11 | Annual incidence of tuberculosis per 100 000 in EU15 countries, 2007                                                              | 25  |
| Fig. 1.12 | Levels of immunization for measles, in the WHO European Region, 2008 or latest available year                                     | 30  |
| Fig. 1.13 | Maternal mortality in Spain, 1995–2007                                                                                            | 33  |
| Fig. 2.1  | Statutory SNS                                                                                                                     | 39  |
| Fig. 2.2  | Chronology of devolution of health competences to ACs                                                                             | 44  |
| Fig. 2.3  | Structure of the MSS                                                                                                              | 53  |
| Fig. 2.4  | Patients' assessment of the evolution of different components of health care, 2002–2008                                           | 70  |
| Fig. 2.5  | Public perceptions of the evolution of waiting lists and action taken, 2000–2008                                                  | 71  |
| Fig. 3.1  | Financial flows across the SNS                                                                                                    | 76  |
| Fig. 3.2  | Health expenditure evolution and public/private relative mix of sources                                                           | 77  |
| Fig. 3.3  | Health care expenditure as a share of GDP (%) in the WHO European Region, 2005                                                    | 78  |
| Fig. 3.4  | Health care expenditure in US\$ PPP per capita in the WHO European Region, 2005                                                   | 79  |
| Fig. 3.5  | Public sector health expenditure as a percentage of total health expenditure, 2005                                                | 80  |
| Fig. 3.6  | Evolution of coefficient of variation of per capita expenditure across ACs, 1992–2009                                             | 83  |
| Fig. 3.7  | Correlation between annual variation in per capita expenditure and annual variation in population protected across ACs, 2007–2009 | 84  |
| Fig. 3.8  | Growth of total public health expenditure and changes in the share (%) of the main components of expenditure                      | 85  |
| Fig. 3.9  | Changes in the share (%) of health budgets over general budget across ACs, 2003–2005                                              | 99  |
| Fig. 4.1  | Health care organizations' governance models in Spain                                                                             | 117 |
| Fig. 5.1  | Percentage of publicly owned hospital beds per AC, 2000–2008                                                                      | 141 |
| Fig. 5.2  | Beds in acute hospitals per 100 000 population in Spain and selected EU countries, 1990–2006/2007                                 | 144 |
| Fig. 5.3  | Evolution of hospital beds and day-hospital posts in Spain, 2000–2007                                                             | 144 |
| Fig. 5.4  | Diagnostic tests performed in public and private sector, 2007                                                                     | 149 |
| Fig. 5.5  | Implementation of the main health care information systems in the SNS, 2007                                                       | 154 |
| Fig. 5.6  | Percentage of SNS activity supported by IT aids and information systems                                                           | 154 |
| Fig. 5.7  | Implementation status of the e-prescription in primary care health centres, 2006 and 2009                                         | 155 |
| Fig. 5.8  | Implementation status of Internet appointments in primary health care centres, 2006 and 2009                                      | 155 |

|            |                                                                                                                                                                                              |     |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Fig. 5.9   | Implementation status of the e-health records in health centres, 2006 and 2009                                                                                                               | 156 |
| Fig. 5.10a | Percentage of ICT investment and expenses in the ACs' health care budget, 2004–2007                                                                                                          | 157 |
| Fig. 5.10b | ICT investment and expenditure in total health care budget, 2008–2009                                                                                                                        | 157 |
| Fig. 5.11  | Active doctors per 100 000 population in Spain and selected other countries, 1990–2007 or latest available year                                                                              | 164 |
| Fig. 5.12  | Active nurses per 100 000 population in Spain and selected other countries, 1990–2007 or latest available year                                                                               | 165 |
| Fig. 5.13  | Number of active doctors and nurses per 100 000 population, 2007 or latest available year                                                                                                    | 166 |
| Fig. 5.14  | Number of active dentists per 100 000 population, 2007 or latest available year                                                                                                              | 167 |
| Fig. 5.15  | Number of active pharmacists per 100 000 population, 1990–2007 or latest available year                                                                                                      | 176 |
| Fig. 6.1   | Incidence of vaccine-preventable diseases, per 100 000 population                                                                                                                            | 186 |
| Fig. 6.2   | Average number of self-reported visits to the GP per inhabitant in a year (2006)                                                                                                             | 193 |
| Fig. 6.3   | Outpatient contacts per person per year in the WHO European Region, 2007 or latest available year                                                                                            | 195 |
| Fig. 6.4   | Evolution of rates of inpatient surgery per 1 000 inhabitants compared to day surgery rates and evolution of the share of day surgery over total surgery, 1995–2007 or latest available year | 207 |
| Fig. 8.1   | Hospital adverse events rates in six countries                                                                                                                                               | 251 |
| Fig. 8.2   | Health care expenditure per capita (public and private, US\$ PPP), 2007 or latest available year                                                                                             | 252 |
| Fig. 8.3   | Expenditure annual growth as a share of GDP, 1997–2007                                                                                                                                       | 253 |
| Fig. 8.4a  | Efficiency scores for OECD countries: health care spending (cost efficiency)                                                                                                                 | 254 |
| Fig. 8.4b  | Efficiency scores for OECD countries: health practitioners (technical efficiency)                                                                                                            | 254 |
| Fig. 8.5   | Satisfaction with health care received in respondents' own country                                                                                                                           | 255 |
| Fig. 8.6   | Access inequalities in six evidence-based procedures                                                                                                                                         | 257 |
| Fig. 8.7   | Citizens' perceptions of the SNS                                                                                                                                                             | 259 |
| Fig. 8.8   | Surgical waiting list, 2003–2009                                                                                                                                                             | 260 |
| Fig. 8.9   | Specialist consultation waiting list, 2006–2009                                                                                                                                              | 260 |
| Fig. 8.10  | PTCA, 2002–2006                                                                                                                                                                              | 261 |
| Fig. 8.11  | Mortality after PTCA                                                                                                                                                                         | 262 |
| Fig. 8.12  | Prostatectomy in prostate cancer, 2002–2006                                                                                                                                                  | 263 |
| Fig. 8.13  | Variations in conservative mastectomy in breast cancer                                                                                                                                       | 263 |
| Fig. 8.14  | Evolution of Caesarean section rates, 2002–2006                                                                                                                                              | 264 |
| Fig. 8.15  | Trauma after delivery                                                                                                                                                                        | 265 |
| Fig. 8.16  | Patient safety indicators                                                                                                                                                                    | 265 |
| Fig. 8.17  | Avoidable admissions in short-term diabetes complications, 2002–2006                                                                                                                         | 266 |
| Fig. 8.18a | Hospitalizations in mental health                                                                                                                                                            | 267 |
| Fig. 8.18b | Expenditure on psychotherapeutic pharmaceuticals                                                                                                                                             | 267 |

**Boxes**

|         |                                                                    | page |
|---------|--------------------------------------------------------------------|------|
| Box 2.1 | Milestones in health care reform, 1997–2009                        | 48   |
| Box 7.1 | Chronology of SNS-level regulation and political action, 2000–2010 | 234  |

## Abstract

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

This edition of the Spanish HiT focuses on the consequences of the totally devolved status, consolidated in 2002, and the implementation of the road map established by the 2003 SNS Cohesion and Quality Act. Many of the steps already taken underline the improvement path chosen: the SNS Inter-territorial Council (CISNS) comprising the national and regional health ministries was upgraded to the highest SNS authority, paving the way for a brand new consensus-based policy-making process grounded in knowledge management; its effects are progressively starting to be evident. It led the way to the SNS common benefits basket or the SNS human resources policy framework, laying the cornerstones for coordination and the enactment of the SNS Quality Plan. The Plan includes the work in progress to implement the national health information system, the development of a single electronic clinical record (eCR) containing relevant clinical information guaranteeing to patients continuity of care outside their Autonomous Community (AC) of residence or a single patient ID to be used across the country, thus creating the basis for the SNS functional single insurer. It has also become one of the main drivers for the design, implementation and monitoring of quality standards across the SNS, developing national health strategies to tackle both most prevalent chronic diseases (e.g. cancer, cardiovascular diseases, diabetes) and rare diseases, as well as the National Strategy on Patient Safety.

The SNS still has many challenges to face, some of which are commonplace across Western developed countries and some of which result from its own idiosyncratic features. The agenda laid out by the CISNS seems to address many of these challenges; its implementation will certainly test the political maturity of the system, and that of the coordination and cohesion tools developed. The eventual results of its implementation will deserve close attention, setting the evaluative agenda for the next few years.

# Executive summary

## Introduction

Spain has been a parliamentary monarchy since 1978. Political devolution to regional governments has been incrementally implemented over the last 30 years. Thus, the political organization of the Spanish state is made up of the central state and 17 highly decentralized regions (termed *Comunidades Autónomas*, that is, autonomous communities, ACs) with their respective governments and parliaments. With a population of 46 661 950 (1 January 2009), Spain covers 505 955 km<sup>2</sup> and has the third largest surface area in western Europe.

The fertility rate is one of the lowest in the EU (1.4 children per woman in 2007), showing a timid upward trend compared to the rates registered up to early 2000s. The inflow of migrant population, especially in the last decade, has had a demographic impact in rejuvenating a population that is otherwise rapidly ageing. Life expectancy in Spain is one of the highest in Europe: 82.2 for women and 77.8 for men in 2007.

The top three causes of death in Spain since 1970 have been: cardiovascular diseases, cancer and respiratory diseases, albeit there has been a steady decrease in the actual mortality rates from these causes. Still, mortality rates for these causes are among the lowest in the WHO European Region. Maternal and child health indicators (neonatal, perinatal and maternal mortality rates) have experienced a dramatic improvement, current rates scoring below European averages.

Regarding lifestyle factors affecting health status, the proportion of daily smokers has been declining, though regular alcohol consumption is quite widespread and hazardous drinking affects some 7% of men and 3% of women. Obesity and overweight is increasing, doubling the 1987 rate for adult population to reach 15.6%.

## Organizational structure

The statutory SNS is universal coverage-wise (including irregular immigrants), funded from taxes and predominantly operates within the public sector. Provision is free of charge at the point of delivery with the exception of the pharmaceuticals prescribed to people aged under 65, which entail a 40% co-payment with some exceptions. Health competences were totally devolved to the regional level (ACs) as from the end of 2002; this devolution resulted in 17 regional health ministries with primary jurisdiction over the organization and delivery of health services within their territory. The ACs' financing scheme promotes regional autonomy both in expenditure and in revenue raising (especially after the 2009 revision). The national Ministry of Health and Social Policy (MSPS) holds authority over certain strategic areas, such as pharmaceuticals' legislation and as guarantor of the equitable functioning of health services across the country. The highest body for SNS coordination is the CISNS, comprising the 17 regional ministers of health, chaired by the national minister. Decisions in the CISNS must be adopted by consensus and, as they affect matters that have been transferred, they can only take the form of recommendations.

The typical structure of regional health systems consists of a regional ministry (*Consejería de Salud*) holding health policy and health care regulation and planning responsibilities, and a regional health service performing as provider. The regional ministry of health is responsible for the territorial organization of health services within its jurisdiction: the design of the health care areas and basic health zones, and the degree of decentralization to the managerial structures in charge of each. The most frequent model consists of two separate executive organizations, one for primary and one for specialist care (ambulatory and hospitals), at the health area level. Nevertheless, regional health services are increasingly creating single-area management structures integrating primary care and specialist care. Basic health zones are the smallest units of the organizational structure of health care. They are usually organized around a single primary care team (PCT) which exercises the gatekeeper function. Regarding patient choice, the possibility to choose a specialist and hospital is relatively less developed (with some differences across ACs), compared to primary health care. In any case, access to specialist care requires referral from a general practitioner (GP). Public health responsibilities tend to be centralized in the regional department of health, though functionally following the basic health areas structure. Each health area should cover a population of no less than 200 000 inhabitants and no more than 250 000.



The non-profit-making private sector plays a key role regarding care for work injuries and professional diseases. There are a number of mutuality schemes covering these contingencies which are funded by the national social insurance treasury, largely through employers' contribution.

In addition, the public system has traditionally contracted out some 15–20% of specialized care provision to private hospital providers (profit-making and non-profit-making). This contracting out typically buys some high-resolution diagnostic services or outpatient surgical procedures as part of waiting list management.

Private voluntary insurance (PVI) schemes play a relatively minor, though increasingly relevant, role within the Spanish health system. PVI is independent from the public system (opting-out is not possible) and complementary in nature (mainly to gain access to services for which there are waiting times in the public system, such as specialist care, or to access services such as adult dental care, which are limited within the benefits package). Schemes cover some 13% of the population, though there is considerable regional variation.

There is a notable exception to the general scheme outlined: the three mutual funds Mutual Fund for State Civil Servants (MUFACE), General Justice Mutual Company (MUGEJU) and Social Institute for the Armed Forces (ISFAS) cater exclusively to civil servants in government departments and their beneficiaries (4.8% of the population). They are financed from a mix of payroll contributions and taxation. Civil servants are the only group eligible to opt out of the SNS, choosing fully private provision.

## Financing

Health expenditure in Spain has followed the upwards international trend, reaching US\$ 2671 purchasing power parity (PPP) per capita and 8.5% of gross domestic product (GDP) in 2007; it is still below the European average. Most of the health expenditure (71%) relies on the public sector (sourced mainly from taxation); the share of private insurance expenditure amounts to 5.5% and OOP payment spending has moved slightly downwards towards the current 22.4%. OOP covers mainly co-payment for prescriptions for the population under 65 years old, as well as adult dental care and optical products.

Public health expenditure breaks down into 54% for specialist care (inpatient and outpatient) 16% for primary health care, 19.8% on pharmaceuticals and

1.4% on prevention and public health. All these expenditure items have grown over the last decade, though to differing extents; notably, the annual growth of pharmaceuticals expenditure has experienced a deceleration.

ACs administer 89.81% of the public health resources, central administration spends 3% and 1.25% corresponds to the municipalities. Health care is the foremost policy responsibility of ACs. On average it accounts for 30% of ACs' total budget.

Currently, almost all public health care expenditure (excluding civil servants' mutual funds) is funded through general taxation. Taxation provides 94.07% of public resources; payroll and employers' contribution to the work injuries and professional diseases mutuality schemes amount to 2.53% of health funds; the mutual funds catering for civil servants account for 3.4% of the resources.

From 2002 onwards, health care financing has been covered by regions out of their general budgets; transfers from the central state are not ear marked. The system includes several specific funds aimed to cover the estimated expenditure needs in each AC and compensate for uneven investment needs and leveraging inequalities across regions. The allocation formula is based on a per capita criterion, weighted by population structure, dispersion, extension and insularity of the territory.

In addition, health ear marked funds were created or expanded to cover certain expenses in order to foster the implementation of policies aimed to increase efficiency and to reduce inequalities across the SNS. It applies, for instance, in compensating regions exposed to cross-border health care issues.

## Regulation and planning

The basic regulation for the SNS emanates from the 1986 Health Care General Act and the 2003 SNS Cohesion and Quality Act. Subject to this framework, regional governments usually divide their functions regarding health between health authorities, i.e. the regional health ministry and the regional health service. Normally, apart from being the health authority, the health ministry holds responsibility for regulation and strategic planning (including health care planning), while the regional health service is responsible for operational planning, management of the services network and coordination of health care provision.

Most of the SNS providers are within the public sector and the predominant governance model has many elements of direct management. The main tool of this model is the contract-programme, which works as management by objectives, incorporating incentives to reinforce certain strategic lines. There is no stated penalty derived from failure to achieve objectives, nor a real transfer of risk to the providers. Some positive financial incentives derived from accomplishment of certain strategic goals (for example, rational prescription, use of generic drugs, reduction of waiting times for certain procedures, etc.) are at stake for teams and eventually for individual professionals; even so, they are always marginal to the bulk of remuneration.

Besides this prevailing model, there are some other forms of provider governance still under direct management but which allow for a legal personality differentiated from the regional health service. All these direct management formulas can be placed in a gradient based on the regimes of contracts, staff and budget; on one extreme would be the strict constraints imposed by the public administrations law while the other end of the range corresponds to private-firm-like frameworks subject to private law (though the property may remain public and the mission of the organization is still public service), laying out the whole range of formulas for the regional governments to choose. In addition there are some indirect management or contracting-out formulas which, in most of the ACs, are confined to the provision of complementary diagnostic tests and ambulatory procedures, and to ancillary services such as hospital catering, laundry, maintenance, cleaning and security. Some ACs have experimented with private finance initiative (PFI) formulas, implementing within their territory the administrative concession to a corporation or a temporary union of enterprises of the provision of care to an entire basic health area. In other cases, the experiment has the features of a classical PFI for hospital building.

## Physical and human resources

The primary care network is entirely public and most of the providers are salaried professionals within the public sector with the few exceptions described (private providers are contracted out to provide primary health care under different formulas in Valencia and Catalonia). Primary health care centres are attended by a multidisciplinary team composed of family doctors, paediatricians, nurses and social workers; some can include physiotherapists and dentists' surgeries, and are linked to some basic laboratory and image diagnosis resources, either

in the same premises or centralized and serving several centres in the vicinity. There are a total of 13 121 primary health care centres that serve 3523.3 citizens each on average.

Around 40% of hospitals belong to the SNS; the remainder are privately owned, though many are included in the networks of public utilization or within a substitute concession by which their activity is publicly funded (around 40% of private hospitals' discharges in Spain are funded out of the SNS budget). The total number of hospital beds amounts to 160 981 or 3.43 beds per 1000 inhabitants; 71.2% of the available beds are functionally dependent on the public sector. Overall, some 40% of total bed capacity is concentrated in big high-tech hospitals of over 500 beds (mainly public); every AC has at least one of these centres, with variations subject to access considerations, such as levels of population dispersion and volume. Over the last two decades there has been a dramatic decrease in psychiatric beds while the number of long-term care beds has experienced some increase. The SNS manages 80% of the acute beds pool, as against only 36% of psychiatric beds and 30% of long-term beds. This points to a shift towards the private sector when it comes to installed capacity for this type of care. The number of acute beds per 1000 inhabitants has also declined in line with the trend observed in other European countries. One of the factors affecting this reduction in acute beds is the progressive introduction of day care substituting for inpatient stays for certain surgical procedures, chemotherapies and dialysis among others.

Investment in information technology (IT) has accelerated in recent years. One of the actions within the line of development of digital public services is the programme Health Care Online (*Sanidad en línea*). The programme has allowed for co-funding of the ACs' IT infrastructure and developments, as well as for the progress of the SNS central node of information, making possible the implementation of the SNS unique patient identifier and electronic health record.

As in most European countries, the numbers in all categories of health professionals per 100 000 persons have increased over time; it is worth noting the expansion in Spain of certain profiles, such as nurses, dentists or pharmacists (which have multiplied several times over their availability in the context of a growing population), compared to the relative stability of physicians. This phenomenon reflects well how those professionals' role has grown within the range of services offered. The population served by primary health care professionals is on average 1410 persons per GP, 1029 per paediatrician and 1663 per nurse. Available workforce per 1000 population in hospital

settings is distributed as follows: 1.7 doctors, 2.93 nurses and 2.47 nurse associated professionals.

Spain was for a while a net supplier of doctors and nurses to countries such as the United Kingdom and Portugal. However, for most of the last decade, the shortage of health professionals has become the dominant issue in planning for health care personnel.

## Principal health care reforms

The health reforms of the 1980s were mainly oriented to the extension of coverage and access to health care services, completing the transition from a limited social security system to a universal national health service funded from taxes. The economic context of the 1990s drove reforms in this period along the road of cost-containment and management innovation. The latest reforms implemented in the 2000s have followed the motto “coordination and cohesion after devolution”. The completion of total devolution of health competences to the ACs motivated a quest for mechanisms to balance the tension between federalization (regionally driven policy) and a national coherent view guaranteeing Spaniards’ equal rights regardless of their region of residence. The reforms can be clustered as aimed to enhance four key elements in a devolved system.

1. *Governing bodies and tools fitting the new federal architecture.* Building on the foundational Health Care General Act, the 2003 SNS Cohesion and Quality Act framed the road map. The CISNS was upgraded to the highest SNS authority, paving the way to a brand new consensus-based policy-making process grounded in knowledge management. This approach has been reinforced by the enactment of the SNS Quality Plan in 2005; it has become one of the main drivers for the design, implementation and monitoring of quality standards across SNS, developing national health strategies to tackle both most prevalent chronic diseases (e.g. cancer, cardiovascular diseases, diabetes) and rare diseases, as well as the national strategy on patient safety.
2. *Common benefits package.* The new benefits basket dictated by the SNS Cohesion and Quality Act was to be comprehensive enough to include all the services listed in the 1995 basket and updated to include new benefits consolidated in the meantime. Enforced from 2006, it also dealt with modernizing some concepts, such as public health benefits; the other

innovation consisted of the prescription of an agreed updating procedure explicitly regulating the mechanisms and requirements for benefits inclusion in the common basket. It stressed the role of health technology appraisal and a cost-effectiveness approach to assessment.

3. *Allocation and distribution of funds to support regional administrations in assuming the devolved competences.* The 2001 revision of the regional financing law was the first allocation scheme in which health care earmarked transfers were abolished and integrated in the general funds allocation system (together with the rest of devolved competences). However, the system has shown some flaws that the new revision passed in 2009 is intended to address as from 2011 general budgets. The modifications increase ACs' fiscal autonomy compared to the previous model, raising the share of partly ceded major taxes to 50% (personal income, VAT) and of manufacture taxes up to 58% (hydrocarbons, alcohol, tobacco). It also refines the tools for enhancement of horizontal and vertical equity: the allocation makes available leveraging block-grants to guarantee that those ACs in the lower range of income can provide the same amount and quality of services as those in the higher income brackets. In addition, the per capita criterion is modified, shifting to population adjusted by effective health protected population, population of school age and aged 65 and over, plus the previous geographical factors.
4. *National information system, able to account for both regional and national levels, allowing for transparency in monitoring performance and resources distribution across the country.* The SNS Quality Plan includes the work in progress to implement the national health information system, a single patient ID containing relevant clinical information or the development of a single eCR to be used across the country, thus creating the basis for the SNS functional single insurer and guaranteeing to patients continuity of care outside their AC of residence.

## Assessment of the health system

Measured by international standards, the SNS ranks, in general, in a fairly good position yielding sustained good results in different dimensions of performance such as:

- population health status parameters
- coverage, access and financial equity parameters

- health care amenable outcomes, health care quality and safety
- users' satisfaction and system legitimacy according to the population (except for patient-oriented information and waiting list management).

These achievements have been attained with a relatively low level of expenditure (currently 8.5% of GDP in Spain, which is below the European average). The conclusion would then be that overall Spaniards are obtaining quite good value for money.

Although international comparison offers important insights, in the case of a quasi-federal country like Spain assessment across the country becomes crucial. In fact, from the perspective of geographical differences in utilization and outcomes there is evidence suggesting large unwarranted variability in access, quality, safety and efficiency, not only across regions but mainly among health care areas and hospitals. For example:

- Variations in utilization of percutaneous transluminal coronary angioplasty (PTCA) are as large as five times between health care areas; although PTCA use has increased over time, these differences remain. Likewise, variation in mortality risk following a PTCA can be two fold, depending on the hospital.
- Variability in inappropriate use of procedures has been also analysed; prostatectomy rates (with all the controversy about its impact on cancer survival) are increasing over time and so is variability across health care areas (by as much as 7.7 times); Caesarean sections, on the other hand, are increasing unwarrantedly, while variability among hospitals is declining due to the convergence of all providers towards high rates.
- Safety indicators such as death rate caused by low-mortality diagnosis-related groups (DRGs), decubitus ulcer, catheter-related infection, pulmonary thromboembolism and deep-venous thrombosis after surgery or post-operative sepsis registered differences in rates across health care areas ranging from 2.2 to 4.5 times more frequent in one area than another.
- Regarding the management of chronic conditions, avoidable hospitalizations related to short-term diabetes complications can be as much as 12 times more frequent, depending on the health care area, and this variability has only increased over the years; similarly, admissions to acute care hospitals due to affective psychosis can be 28 times more frequent in one area than another.

- Differences in technical efficiency index across hospitals (clustered by size), are notable: 26% of hospitals, with more than 501 and less than 1000 beds, were at least 15% more inefficient than the standard. At the same time, 12% of hospitals with more than 201 beds and less than 500 were, at least, 25% less efficient than the standard for treating similar patients.

Beside this quantitative evidence, there have been several initiatives to collect SNS stakeholders' opinions on the main challenges faced by the SNS. Different stakeholders (patients, professionals and policy-makers) seem to agree on referring to information as the basis for improving the SNS quality, reliability and sustainability.

Although major steps have been taken in developing the technological basis, the health care system information in Spain lacks a common performance measurement framework. In fact, the system is still too based on resources or activity data (to the detriment of outcomes information), and connectivity between health care information systems (within and between regions across the country) is still limited. This situation has hampered the possibility of systematic assessment of SNS performance, whatever the level of disaggregation.



# 1. Introduction

## 1.1 Geography and sociodemography

Spain has a population of 46 661 950 (1 January 2009; INE 2009k) and covers 505 955 km<sup>2</sup>, the third largest country in western Europe. The Spanish mainland is bordered by France on the north and Portugal on the west side. With an average altitude of 660 m above sea level, it is a country with a highly varied geography and climate. The Spanish territory also includes the Canary Islands, located west of Africa, and two autonomous cities on the north side of the African continent, Ceuta and Melilla. The Balearic Islands, in the Mediterranean, are the other relevant Spanish island territory. Administratively, the territory is organized within 17 autonomous communities (*Comunidades Autónomas*, ACs) plus the two autonomous cities in the north of Africa (Fig. 1.1). The average population density in 2008 was 91.2 inhabitants per km<sup>2</sup>. However, the population tends to concentrate in urban nodes, with the capital, Madrid, registering the highest population density (781/km<sup>2</sup>) and the coastline as well; the central areas of the country are becoming increasingly underpopulated, with average population density close to 20 inhabitants per km<sup>2</sup>. This distribution of the population is partly due to climatic and water conditions, and partly due to the historical pattern of industrialization. Marked differences in economy, culture, language and political–administrative traditions exist within varying climatic and economic settings.

Table 1.1 provides a synthetic view of major Spanish sociodemographic features and their evolution since the late 1970s. The profile is very similar to that observed in other European Mediterranean countries: growing total population and progressive global ageing, while birth and fertility rates fall significantly. A remarkable social change in these Catholic countries is behind this phenomenon. During the late 1970s and 1980s, women of childbearing age entered the labour market – traditionally reserved for men and single women –

**Fig. 1.1**

Territorial organization of Spain: autonomous communities (ACs)



Source: Reproduced from MSPS 2010g.

in large numbers, as they were able to delay having children, or simply not to have them; as a result, the number of births per woman decreased dramatically, and the impact of this lasted until the beginning of the 2000s.

However, a weak reversal of this decaying trend can be observed in the last decade. The inflow of immigrants, especially significant during this period, may have contributed to this change through the comparatively younger composition of this population, and its higher fertility rate. According to Eurostat (2009a), three-quarters of the population growth of the EU in 2008 was attributable to immigration inputs. In relative terms, Spain has experienced the fourth highest migration flow in Europe since 2000, reaching a total of 5.3 million foreign

**Table 1.1**

Main population/demographic indicators, 1970–2008, selected years

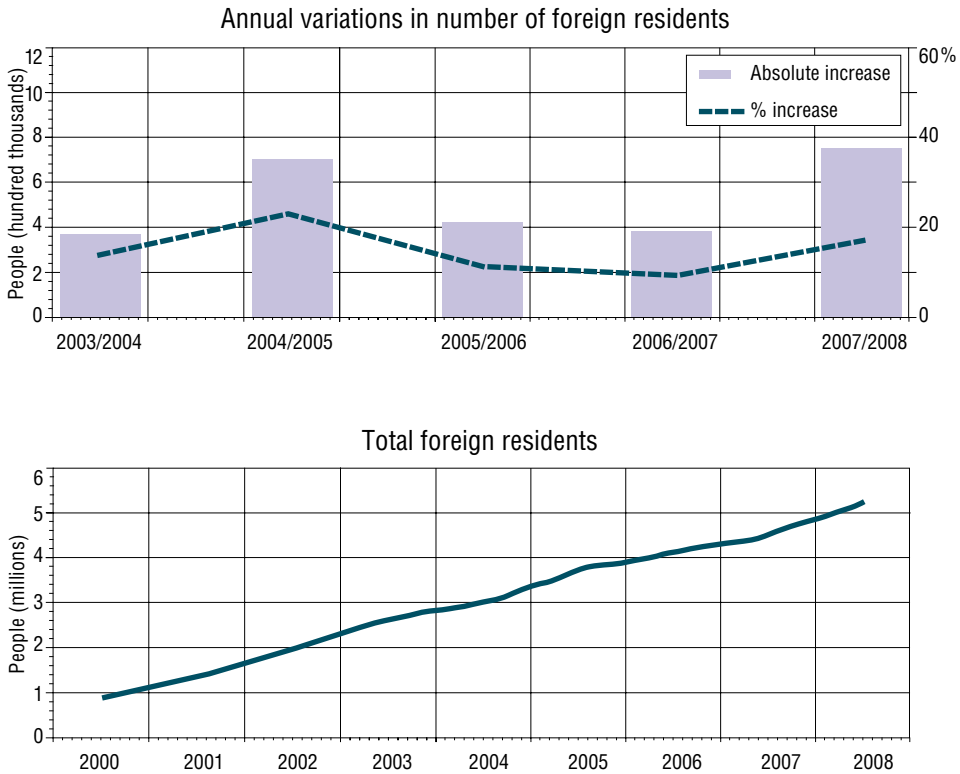
|                                                                                      | 1970   | 1980   | 1990   | 1995   | 2000   | 2005         | 2007        | 2008               |
|--------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------------|-------------|--------------------|
| Population, total thousands <sup>a</sup>                                             | 33 779 | 37 386 | 38 836 | 39 200 | 40 500 | 44 109       | 45 201      | 46 158             |
| Population, female (% of total)                                                      | 51.10  | 51.00  | 51.00  | 51.10  | 51.10  | 50.62        | 50.58       | 50.50              |
| Population aged 0–14 (% of total)                                                    | 27.92  | 26.00  | 19.71  | 16.62  | 14.77  | 14.60        | 14.60       | –                  |
| Population aged 65 and above (% of total)                                            | 9.70   | 11.20  | 13.40  | 15.27  | 16.86  | 16.80        | 16.60       | –                  |
| Population aged 80 and above (% of total) <sup>a</sup>                               | 1.55   | 1.94   | 2.96   | –      | 3.96   | –            | 4.53        | –                  |
| Population growth (average annual growth rate)                                       | –      | 1.06   | 0.38   | 1.87   | 0.66   | 1.78         | 1.23        | 2.11               |
| Population density (people per km <sup>2</sup> )                                     | n/a    | n/a    | 77.00  | 77.49  | 79.40  | 85.73        | 85.73       | 91.20 <sup>a</sup> |
| Urban population (% of total population)                                             | 66.00  | 73.00  | 78.00  | 77.00  | 77.61  | 76.70        | –           | –                  |
| Fertility rate, total (births per woman)                                             | 2.80   | 2.20   | 1.50   | 1.30   | 1.20   | 1.40         | 1.40        | –                  |
| Birth rate, crude (per 1000 people)                                                  | 19.43  | 15.06  | 10.30  | 9.27   | 9.90   | 10.98        | 10.98       | –                  |
| Death rate, crude (per 1000 people)                                                  | 8.29   | 7.71   | 8.55   | 8.83   | 9.00   | 8.90         | 8.40 (2006) | –                  |
| Age dependency ratio (population 0–14 and 65+ / population 15–64 years) <sup>b</sup> | 59.70  | 58.50  | 50.30  | 47.00  | 46.20  | 45.40        | 45.30       | –                  |
| Educational level                                                                    | –      | –      | 79.70  | 82.40  | 83.59  | 87.59        | 88.35       | –                  |
| Proportion of single-person households <sup>a</sup>                                  | –      | –      | –      | 14.20  | 16.00  | 16.80 (2001) | –           | –                  |
| Literacy rate(%) in population aged 15+                                              | 91.50  | 94.30  | 96.30  | 97.00  | 97.60  | 97.70        | 97.90       | –                  |

Sources: WHO Regional Office for Europe 2009; <sup>a</sup>INE 2009f, 2009h; <sup>b</sup>OECD 2009b.

residents by the end of 2008, that is, 12% of the registered resident population (see Fig. 1.2). Most foreign residents are concentrated in the Balearic Islands (20.8%), Valencia (16.8%) and Madrid (16.0%). In terms of country of origin, more than 30% of the foreign residents came from EU27 countries, and a further 25% from Latin American countries. Moroccans form another major group of foreign residents, accounting for 11.4% of foreign residents.

**Fig. 1.2**

Foreign residents in Spain, 2000–2008



Source: INE 2009f.

## 1.2 Economic context

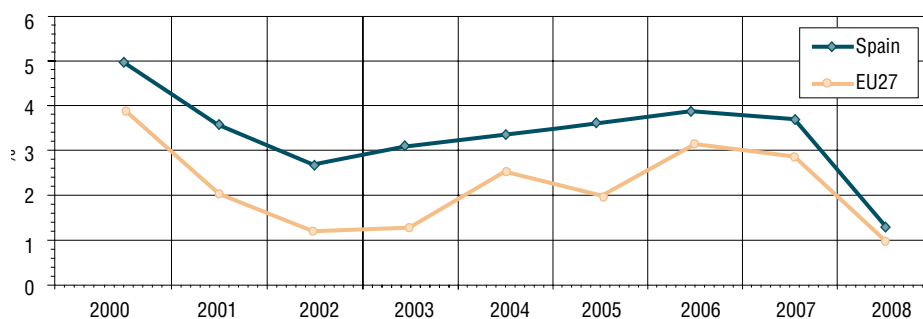
Following the severe downturn of the Spanish economy in the early 1990s, Spain enjoyed a period of remarkable increase in annual growth of GDP (Table 1.2), well above the EU average (Fig. 1.3). However, the consequences of the recent world financial crash can be already traced in the latest macroeconomic figures for 2008 as reflected in Table 1.3. The GDP at market prices in 2008 is estimated at €1095 billion (US\$ 1461 billion PPP), 1.2% higher than the previous year, but the growth rate is rapidly converging with the EU27 average, already reflecting the abrupt slowdown in growth.

**Table 1.2**  
Annual GDP growth for Spain, 1994–2008

| Year                  | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GDP growth (annual %) | 2.38 | 2.76 | 2.44 | 4.03 | 4.35 | 4.20 | 4.20 | 2.70 | 2.00 | 2.40 | 3.30 | 3.60 | 3.90 | 3.70 | 1.20 |

Source: INE 2009m (based on 1995 prices to allow international comparison).

**Fig. 1.3**  
Trends in annual growth rate of real GDP, Spain and EU27, 2000–2008



Source: Eurostat 2009c.

**Table 1.3**  
Macroeconomic indicators in 2008

|                                                            |                         |
|------------------------------------------------------------|-------------------------|
| GDP (€ billion)                                            | 1 095                   |
| GDP, PPP (current international \$ billion)                | 1 461                   |
| GDP per capita (current \$)                                | 31 586                  |
| GDP per capita, PPP (current international \$, EU27 = 100) | 105.50 <sup>a</sup>     |
| Value added in industry (% of GDP)                         | 15.90                   |
| Value added in agriculture (% of GDP)                      | 2.50                    |
| Value added in services (% of GDP)                         | 62.60                   |
| Government net borrowing/net lending (% of GDP)            | 2.21                    |
| Labour force, total                                        | 22 800 000 <sup>a</sup> |
| Unemployment, total (% of total labour force)              | 11.30 <sup>a</sup>      |
| Official exchange rate (LCU per US\$)                      | 0.73 <sup>c</sup>       |
| Real interest rate (% , 2007 average)                      | 4.30                    |
| GINI index (%)                                             | 31.40 <sup>d</sup>      |
| Poverty rate (%)                                           | 19.70 <sup>a</sup>      |

Sources: OECD 2009b; <sup>a</sup>INE 2009c, 2009l.

Notes: <sup>b</sup> 2007; <sup>c</sup> 2007 average; <sup>d</sup> 2004.

In 2008, the GDP per capita in current prices was €24 020 (US\$ 31 586 PPP; OECD 2009b), 2.6% higher than the earlier year and slightly below the EU27 index at €25 100. Within the country, the range of variation spread from €16 828 in Extremadura to €32 133 in the Basque Country; seven ACs scored above the EU average in that year. Fig. 1.4 shows the relative value of GDP across ACs in 2008 using the national average as reference.

**Fig. 1.4**

Relative GDP per capita in ACs, 2008 (Spain = 100)



Source: INE 2009f.

According to the National Institute of Statistics (INE 2009i), the total economically active population reached 59.8% of those aged 16 years and over; the rate among the female population was lower (50.5%) than for their male counterparts (69.5%). By economic sector, construction was already in recession in 2008 with a 10.9% decrease in employment, followed by agriculture (-5%) and industry (-1.1%). Only the services sector registered an increase in employment, by 2.1% in 2008. Fig. 1.5 shows the distribution of employment by activity sector.

**Fig. 1.5**  
Employment by sector in Spain, 2008

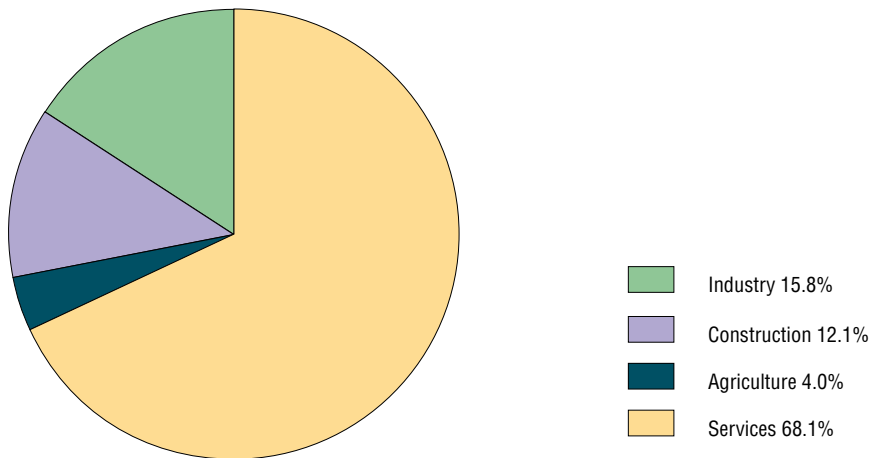
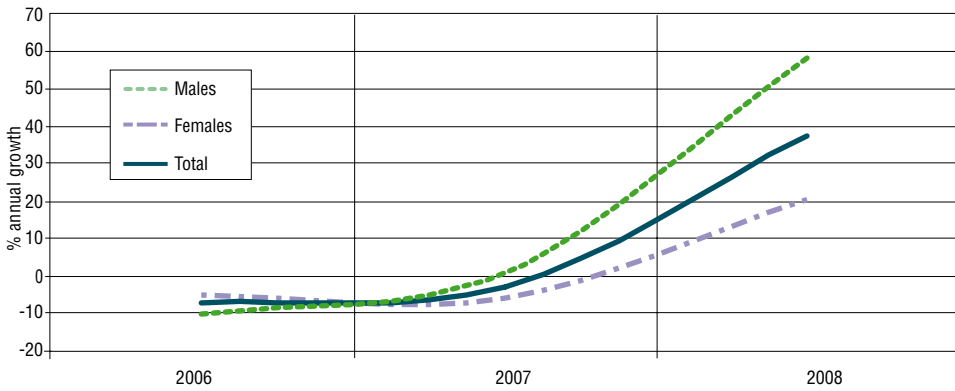
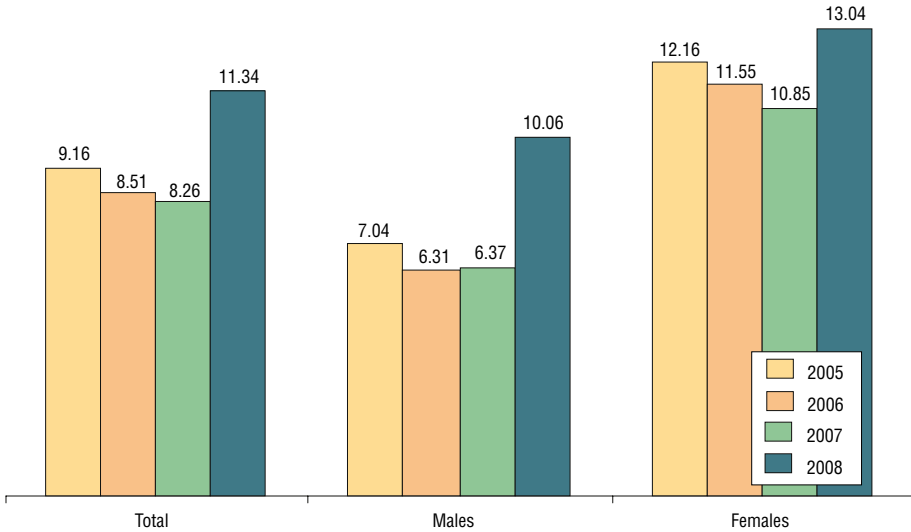


Fig. 1.6 shows the evolution of the unemployment rate since 2005; the declining trend registered until 2007 seems to have come to a halt, turning to a rapid increase up to 11.3% in 2008 and rising above 17% of the economically active population according to the preliminary data for 2009 (INE 2009i). The data shows the differential pattern of female unemployment: it is systematically above the total for male rates. A closer look at the data (right panel Fig. 1.6) reveals that, until 2007, the decrease in the female unemployment rate was more accelerated than for the male population (probably as a consequence of a labour policy focused on bridging the traditional gap) and, even in 2008, when the unemployment rate started to rise again, the percentage increase for men is several points above that of women. Most of the severe loss of jobs in 2008 took place within the construction sector, where male labour is usually the norm.

**Fig. 1.6**

Latest trends in unemployment rate (%) by sex

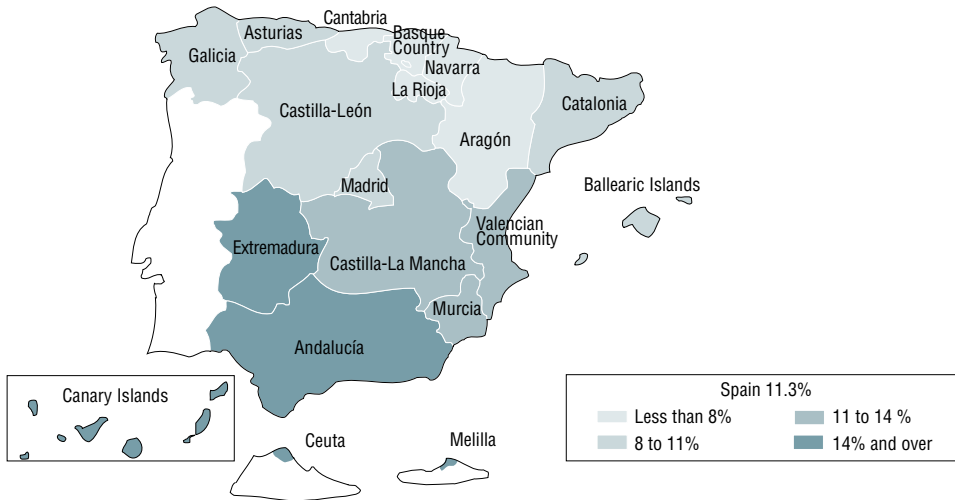


Source: INE 2009e.

The distribution of unemployment is not geographically uniform either. Fig. 1.7 illustrates the considerable variation across ACs; this pattern overlaps in many respects with that of relative GDP per capita (Fig. 1.4).



**Fig. 1.7**  
Geographical distribution of unemployment rate (%), 2008



Source: INE 2009f.

### 1.3 Political context

Spain is a parliamentary monarchy. The 1978 Constitution followed 40 years of dictatorship, after which the country underwent a deep transformation of the state, its political structure and its legal framework. One of the main elements of this metamorphosis has been the profound political decentralization of state structures incrementally implemented since the transition to democracy. Territorially, the political organization of the Spanish state is made up of the central state and 17 regional administrations (ACs) with their respective governments and parliaments.

At central level, legislative power rests with a two-chamber parliament (Congress and Senate). The Senate was initially intended to play the role of a territorial chamber once the decentralization of the Spanish state had been achieved; however, this function has not been entirely realized and several reforms to reinforce its functioning within the system along these lines have been under discussion recently. General elections take place every four years for the members of the two chambers; the members of the Congress elect the president by majority. The president names the central government, which is accountable to the national parliament.

At the regional level, the Spanish political model prescribes that every four years each AC elects a regional parliament, which in turn elects the president by majority. The president then names a regional government accountable to its regional parliament. There are also 52 provinces and over 8000 municipalities. As mentioned before, the Spanish territory also includes two cities in the north of Africa (Ceuta and Melilla) with autonomous status.

The size of these political units differs considerably, with ACs ranging between 8 202 220 (Andalucía) and 317 501 inhabitants (La Rioja). Municipal populations range from close to 4 million inhabitants in Madrid to less than 10 inhabitants in the isolated municipalities of central and north-western Spain. There are close to 6000 municipalities with fewer than 2000 people, and nearly 3800 with fewer than 500 inhabitants (INE 2009j). The small average size of municipalities in Spain has traditionally been an important obstacle to decentralizing responsibility over major policy sectors to this level. For this and other reasons, during most of the 20th century provinces were usually preferred as the target level for administrative decentralization. From 1978 onwards, however, political decentralization focused on the regional tier of government, represented by the ACs, by far the most politically relevant sub-central level of government in contemporary Spain.

Each of the 17 ACs has one basic law (*Estatuto de Autonomía*, Statute of Autonomy), acknowledged by the 1978 Constitution. The Constitution lays out the spheres of responsibility which are the exclusive competence of the central state, those that may be assumed completely by the ACs and those that are shared between the two. The statutes of autonomy have the character of bilateral agreements on the division of competences between the central and the regional governments, endorsed by both the national and the regional parliaments, within the general constitutional framework. The statutes were renewed through the 1990s, and all 17 are currently undergoing a further review aimed at furthering the devolution of competences currently shared with the national level.

Multilateral negotiations between the regional and the central level take place within sector-specific governing bodies or councils composed of the corresponding regional and central authorities. These bodies typically generate the mandate for specific working groups and commission expert analysis to inform their debates; the central and regional governments are obliged to implement the agreements made within these councils (see Chapter 2 for further details on the decision-making process within these bodies). One of the key points in the interface between central and regional levels is the financing of the regional governments; this negotiation is framed within the Council of Taxation

and Fiscal Policy.<sup>1</sup> A reform of the financing system has just been agreed by the Council and will replace the current system, which has been in place since 2001. Like its predecessor, the new financing system is two-tiered.

The first tier consists of assignments stemming from the general budgets of the state; that is, the share of the national general budget allocated to each regional administration according to a resource allocation formula. This formula includes weighting elements to refine the per capita criteria, such as children of school age; the elderly population; population density, extension and insularity; and linguistic equality policies. Both *floor* and dynamic elements of funding have been included. This source of funding foresees two tools for distribution: the Fund of Guarantee for Essential Public Services, which includes health, social services, education and social benefits, that is, welfare state components for which ACs are responsible and the central level is competent only in terms of guaranteeing equity with regard to the minimum level of service across the country. This tool assigns resources according to weighted units of need or *equivalent population covered* – adjusted by population structure – rather than population covered. The other tool is the Global Sufficiency Fund, ensuring that no AC could see its revenue reduced with respect to the agreed year of reference, 2007, as a consequence of the new allocation formula. This tier, through the two tools described, accounts for 80% of total resources for regional financing.

The second tier corresponds to tax-related resources based on the handing over by the central administration of an increased share of tax revenue generated within each AC. Compared to the 2001 system, the new arrangements substantially increase the ACs' capacity to raise revenue directly and to legislate on taxation (indirect and special taxes, but also part of income taxes). This source amounts to 16.5% of the total resources made available.

Two additional devices for resources redistribution have been set up by the central administration under the denomination of Funds for Autonomous Communities' Convergence (they amount to 3.5% of the total regional funding resources). These funds provide additional resources to lever weighted per capita expenditure of those regional governments below the country average (Competitiveness Funds) and to contribute solidarity funds to those ACs with GDP per capita below 90% of the national figure, or ACs with population density under 50% of the national average or with a population growth lower than 90% of the national rate (Cooperation Funds).

---

1 It includes the national Minister of Economy and Treasury, the national Minister for Public Administrations and all the regional ministers of economy and treasury; it was created in 1980, prescribed under the Organic Law on the financing system of the ACs (*Ley Orgánica de Financiación de las Comunidades Autónomas*, LOFCA) and aimed to coordinate the financing activity among ACs and with the national Treasury.

It is noteworthy how the Basque Country and Navarra enjoy a special regime, founded on historical prerogatives that assign to the regional administration total jurisdiction on taxation within their territory. This entails reversing the direction of transfer of funds, which move from the AC to the central government as compensation for the use of the services and structures provided by the national administration in their territory, such as justice, national police, defence and major infrastructures.

Health care and social security are shared areas of responsibility. Nowadays, ACs enjoy considerable legislative freedom and autonomy with regard to health and social care policy, although they have restricted implementation powers in the field of social security. Regulation related to health care is endorsed both as primary legislation and secondary legislation. In all matters that are not the exclusive responsibility of the state, regional laws have the same legal status as those of the state, and conflicts between the two must be settled in the Constitutional Court.

All 17 ACs have important legislative and implementation powers in the fields of public health, community care and most social services. In some regions, provinces and large city councils have historically owned and still own most psychiatric hospitals, mental health care centres and nursing homes, although their role in the management and regulation of these centres has been fairly limited during the last five years. Mental health care reforms in most of the ACs have entailed varying degrees of integration of these mental health services into the regional health systems. In some ACs, municipalities still have some managerial responsibilities in the fields of sanitation, environmental health and public health.

Since the approval of the 1978 Constitution, three political parties have held office at the central government level. The centre-right Union of the Democratic Centre (*Unión de Centro Democrático*, UCD) led the transition process in the period 1976 to 1978 and governed between 1979 and 1982. Then the social democratic Spanish Socialist Workers' Party (*Partido Socialista Obrero Español*, PSOE) was in office under the same prime minister from 1982 to 1996, while the party also held office in almost two-thirds of the regions (since 1993, under a minority government, they have had to rely on the support of regional parties in order to pass legislation). From March 1996 to March 2004, the centre-right People's Party (*Partido Popular*, PP) held office for two consecutive legislatures (both under the same prime minister as well) – during the first, with the parliamentary support of two regional parties (the Catalan and Basque centre-right parties, the same groups that previously supported the

PSOE between 1993 and 1996). In March 2000, the PP again won the general elections, this time with a majority of the votes and more than 50% of the seats in the two chambers of the central parliament. In March 2004, the PSOE returned to the government with 42.64% of the votes, renewing its mandate for another four years in 2008 with 43.87% of the votes; on both occasions, though, the number of seats the party held in the parliament (12 and 7 seats short of a majority, respectively) only allowed for the formation of a minority government, which had to negotiate with the other political parties in order to pass legislation. Once again, the role of small regional parties has proven decisive in those negotiations. The green option and the left party United Left (*Izquierda Unida*, IU) have become marginal in the national chambers, although they remain decisive as partners in some regional parliaments.

The majority of regional governments have been presided over by either the PP or the PSOE and that situation continues. Four notable exceptions to this have been the governments in Catalonia, the Canary Islands, Galicia and the Basque Country, where regional parties have alternated with national ones in holding office, or even dominated. It may be relevant to highlight the difference between regionalist and nationalist parties; while for the latter self-government is a priority – and they may even have secessionist aspirations – the former are just parties with a political view restricted to the regions in which they are based. The current share of power among the ACs is as follows.

- Seven ACs are governed by the PSOE: Andalucía, Aragón (in coalition with the Aragón regional party and the IU), Asturias (with the support of the IU and the local green party), the Balearic Islands (minority government in a coalition with two regionalist parties and local green parties), Castilla-La Mancha, Extremadura and the Basque Country (minority government supported by the PP to defeat the Basque nationalist conservative party, which had held office since the first democratic elections).
- Six ACs are governed by the PP: Castilla-León, Galicia, Madrid, Murcia, La Rioja and Valencia, all with an absolute majority in the regional chambers. The two autonomous cities of Ceuta and Melilla are also ruled by a PP majority.
- ACs that have governments presided over by local parties are:
  - the Canary Islands, where the regionalist conservative Canary Coalition holds office with the support of PP;
  - Cantabria, with a government presided over by the regionalist Cantabrian party sustained by PSOE;

- Catalonia, governed by a coalition of three parties, two of which are regional versions of the PSOE and IU (although autonomous), under the denomination of PSC (Socialist Party Catalan), the Initiative per Catalonia-green party and the left nationalist party Esquerra Republicana;
- Navarra, with a minority government of the regionalist party, *Unión del Pueblo Navarro*.

Regarding its participation in the broader governing structures, Spain joined the EU in 1986. It also belongs to other international organizations such as the United Nations, the OECD, the European Economic Agreement (EEA), the World Trade Organization (WTO), the North Atlantic Treaty Organization (NATO) and the Council of Europe, among others, and has signed most major international treaties with a direct or indirect impact on health, such as the General Agreement on Tariffs and Trade (GATT), the Convention on the Rights of the Child, the European Human Rights Convention and the International Convention of Human Rights.

## 1.4 Health status

Global health indicators in Spain have been improving steadily since the 1970s (Table 1.4). The average life expectancy is one of the highest in the world: in

**Table 1.4**  
Mortality and health indicators in Spain, 1970–2007, selected years

|                                                                         | 1970  | 1980   | 1990   | 2000   | 2005  | 2007 <sup>a</sup> |
|-------------------------------------------------------------------------|-------|--------|--------|--------|-------|-------------------|
| Life expectancy at birth, in years                                      | 72.88 | 75.60  | 77.00  | 79.49  | 80.44 | 81.10             |
| Life expectancy at birth, in years, male                                | 70.14 | 72.46  | 73.42  | 75.95  | 77.09 | 77.80             |
| Life expectancy at birth, in years, female                              | 75.51 | 78.64  | 80.57  | 83.03  | 83.80 | 82.20             |
| Crude death rate per 1000 population                                    | 8.29  | 7.71   | 8.55   | 8.97   | 8.93  | 8.59              |
| Reduction of life expectancy through death before 65 years <sup>b</sup> | 7.31  | 5.98   | 5.54   | 4.54   | 4.08  | –                 |
| Reduction of life expectancy through death before 65 years, male        | 8.68  | 7.36   | 7.08   | 5.87   | 5.25  | –                 |
| Reduction of life expectancy through death before 65 years, female      | 5.79  | 4.36   | 3.66   | 2.92   | 2.63  | –                 |
| Crude death rate per 1000 population, male                              | 8.75  | 8.26   | 9.24   | 9.63   | 9.44  | –                 |
| Crude death rate per 1000 population, female                            | 7.86  | 7.17   | 7.88   | 8.34   | 8.42  | –                 |
| Infant deaths per 1000 live births                                      | 20.78 | 12.41  | 7.60   | 4.38   | 3.78  | 3.46              |
| Mortality rate, children under 5 (per 1000 live births) <sup>c</sup>    | –     | 277.05 | 183.25 | 111.70 | 94.70 | 88.95             |

Sources: WHO Regional Office for Europe 2009; <sup>a</sup>INE 2009a; <sup>c</sup>Institute of Health Carlos III 2009.

Note: (<sup>b</sup>) Hypothetical increase in life expectancy (LE) if all mortality in age group 0–64 equals zero. Calculated: LE at 65+ -LE at birth.

2007 it was 82.2 years for women and 77.8 for men. Likewise, infant mortality rates have been decreasing since the mid-1970s to reach a rate very similar to EU average levels, from 20.78 in 1970 to 3.46 per 1000 live births in 2007.

## Mortality

The top three causes of death in Spain since 1970 have been cardiovascular diseases, cancer and respiratory diseases, albeit there has been a steady decrease in the actual mortality rates from these causes (Table 1.5). In 2007, a total of 385 361 deaths were registered at national level; 32.2% were attributable to cardiovascular diseases, the main cause of death, followed by malignant neoplasm (26.8%) and respiratory diseases (11.43%) (INE 2009b). It is worth noting that the increase in the respiratory diseases mortality rate in 2005 with respect to the previous year (by 11.4%) is attributable to an exceptionally high incidence of flu that year. Comparing the 2007 respiratory disease mortality rate to the aggregated period 2002–2006, the increase is much lower (4%).

**Table 1.5**

Main causes of death, 1970–2005, selected years (SDRs, all ages, per 100 000)

|                                                                 | 1970   | 1980   | 1990   | 1995   | 2000   | 2001   | 2003   | 2004   | 2005   |
|-----------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| All causes                                                      | 978.70 | 819.50 | 735.10 | 674.5  | 610.70 | 596.50 | 600.06 | 565.23 | 568.47 |
| Diseases of the circulatory system                              | 435.23 | 378.12 | 287.64 | 241.69 | 197.90 | 191.04 | 187.37 | 173.54 | 171.99 |
| Malignant neoplasms                                             | 156.10 | 162.56 | 175.90 | 179.81 | 170.40 | 171.40 | 167.06 | 164.21 | 159.73 |
| Diseases of the respiratory system                              | 101.52 | 76.20  | 68.44  | 60.48  | 62.91  | 56.04  | 61.63  | 53.25  | 61.83  |
| Mental disorder and diseases of nervous system and sense organs | 19.10  | 11.89  | 21.67  | 28.63  | 33.12  | 34.44  | 39.12  | 35.30  | 36.86  |
| Trachea/bronchus/lung cancer                                    | 17.30  | 24.43  | 32.74  | 35.31  | 34.23  | 35.02  | 34.67  | 34.77  | 33.86  |
| External causes of injury and poisoning                         | 42.96  | 42.94  | 45.76  | 37.43  | 35.72  | 33.74  | 33.58  | 32.93  | 31.67  |
| Diseases of the digestive system                                | 54.78  | 49.37  | 42.92  | 36.77  | 32.20  | 31.53  | 31.64  | 30.27  | 29.77  |
| Infectious and parasitic diseases                               | 22.52  | 10.89  | 8.88   | 8.68   | 11.97  | 12.12  | 12.63  | 12.12  | 12.10  |
| Tuberculosis                                                    | n/a    | 4.19   | 2.27   | 1.54   | 0.89   | 0.86   | 0.78   | 0.72   | 0.75   |

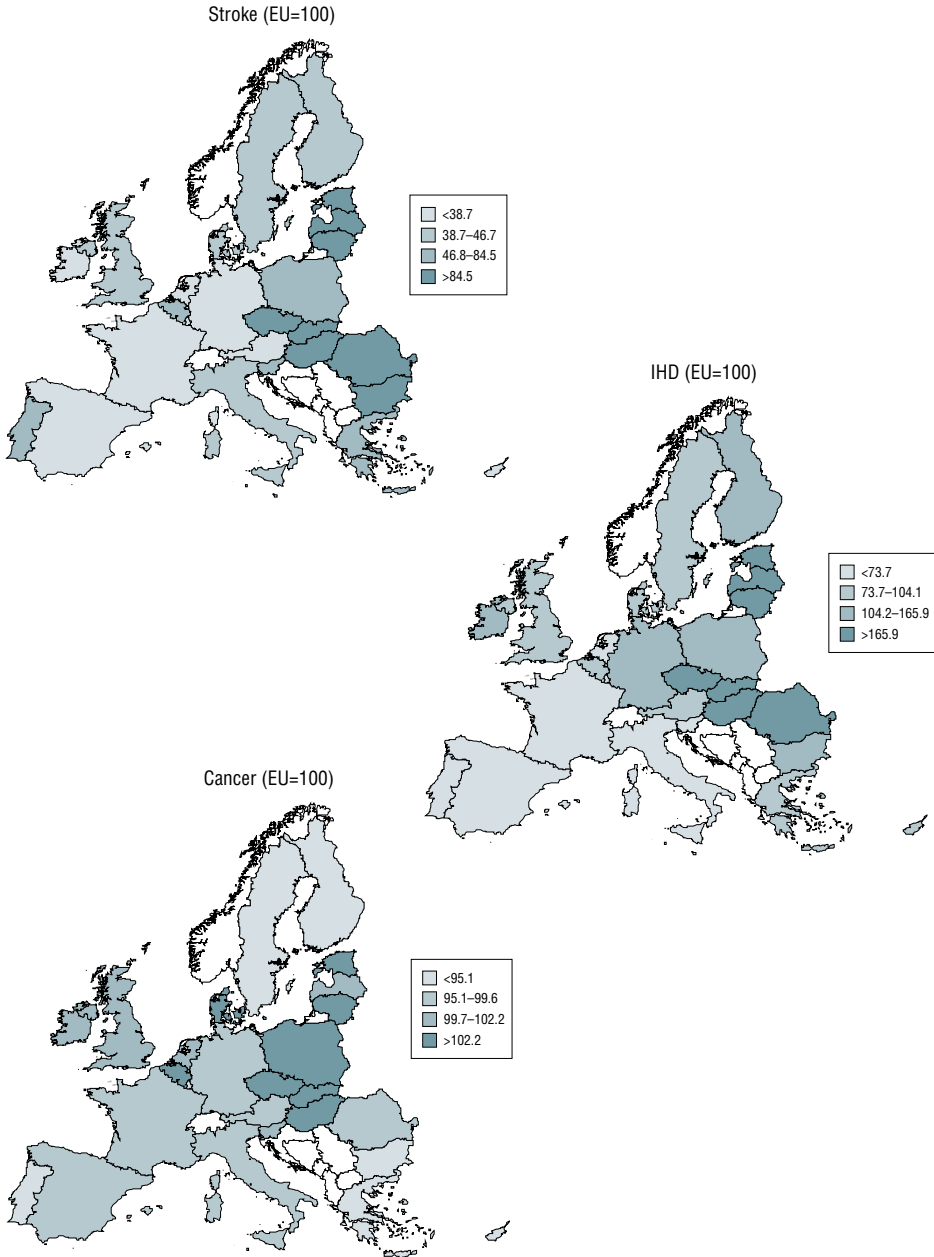
Source: WHO Regional Office for Europe 2009.

Note: SDR: Standardized death rate.

A closer look at death statistics reveals that ischaemic heart disease (IHD) and stroke were responsible for most of the mortality due to cardiovascular diseases, actually the first and second cause of total death in Spain in 2005. Fig. 1.8 compares the Spanish IHD, stroke and cancer mortality rates with the EU average and other EU countries.

**Fig. 1.8**

Standardized mortality rate by selected causes in EU countries, latest available year (2004–2007)



Source: Modified from National Health Information Institute 2009a; original data from WHO Regional Office for Europe 2009.



Regarding cardiovascular diseases, Spain is well below the EU mortality rate, more than 65% lower for stroke and 70% for IHD. Spain registered the second lowest IHD mortality rate in Europe, behind France, and it is among the four countries with the lowest stroke mortality rate (behind France, Austria and Ireland).

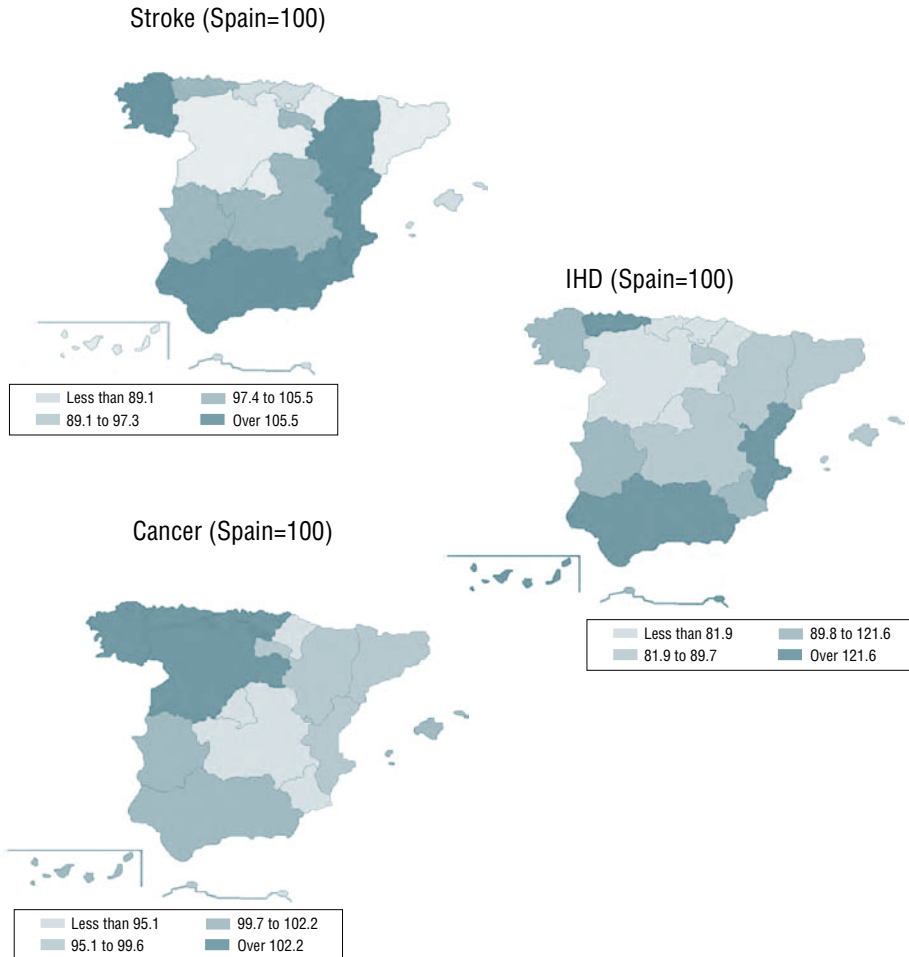
With respect to cancer mortality rate, Spanish figures are also relatively low compared to the EU average, in the range of 11% lower. This comparatively low rate can be attributed partly to the breast cancer specific mortality rate, which, together with Portugal's, is the lowest in Europe.

Fig. 1.9 examines the rates' variation within Spain based on 2006 data. There is a general pattern for IHD and stroke, with the highest mortality tending to concentrate in the south-east regions of Spain and the lowest in the centre and north. The Canary Islands, Melilla and Valencia registered the highest IHD mortality rates (between 30% and 40% above national rates). At the other extreme of the range, IHD mortality in the Basque Country, Cantabria and Navarra was 25% lower compared to the national rate. The highest stroke mortality rates were observed in Andalucía (40% above the national rate), Valencia (28%) and Murcia (11%). Castilla-León and Madrid registered the lowest stroke mortality rates (30% and 20% lower than the national rate). It is noteworthy that most of the deaths due to stroke are of people aged 75 and older, especially women (87% of female stroke deaths in 2006 compared to 70% among men); this proportion has been quite stable from 1990 for both sexes. Thus the impact of this cause of death on premature mortality was low.

Cancer mortality also shows a characteristic geographic pattern; rates are consistently higher in the north-west regions and lower in the south-east. Differences are not as dramatic as those observed in the case of IHD and stroke: Asturias registered the highest cancer mortality rate, 13% above the national rate, followed by Galicia and the Basque Country, 5% higher compared to the national figure. Castilla-La Mancha, Madrid, Murcia and Navarra were the ACs with the lowest cancer mortality rate. The analysis of premature mortality due to cancer reproduces the same geographical pattern. According to the National Health Information Institute (2009a), the age-adjusted cancer mortality rate has decreased by 9% in Spain between 1990 and 2006; this drop was more pronounced for women, who had a 12% decrease compared to 8.6% for men. However, cancer is still the main cause of premature death; in 2006, 41% of total deaths among people younger than 75 years old were caused by cancer (39.8% for men and 43.8% for women). In fact, the relative weight of cancer as a cause of premature death has increased by 25% (for both men and women) since 1990, even though the actual mortality rate has been declining.

**Fig. 1.9**

Age-standardized mortality rate by some selected causes per AC, 2006



Source: Modified from National Health Information Institute 2009a; original data from WHO Regional Office for Europe 2009.

The main malignant neoplasm in women is breast cancer; the corresponding mortality rate in 2006 was 26.7 per 100 000 women. The age-adjusted mortality rate from this cause decreased by 23% between 1990 and 2006. Although 60% of the deaths were women under 75 years old in 2006, premature mortality attributable to breast cancer in this age group has been steadily declining since 1990. Lung cancer cases represented 20% of all cancer mortality in 2006 (27.5% for men and 7.1% for women). However, while the proportion of cancer deaths due to lung cancer has slightly declined among men, it has increased by about 50% among women. The main explanation may lie in the opposite directions of

smoking trends for the sexes in countries like Spain, where smoking cessation awareness appeared later than in other countries (National Health Information Institute 2009a).

Regarding mortality due to external causes of injury, it is worth highlighting the remarkable reduction experienced in Spain. According to the Eurostat yearbook, *Europe in Figures* for 2009 (Eurostat 2009b), in 2005 Spain experienced a decrease of more than 30% in fatal accidents at work and around 15% in serious accidents at work compared to 1998 figures. As for road and traffic accidents, the incidence has also decreased as a consequence of an active campaign on the consequences of driving under the influence of alcohol, reinforced by the instauration in 2005 of the new points system for driving licence (Law 17/2005, regulating the points system for driving licence and modifying road safety law), with severe penalties (including jail sentence), and suspension or termination of a person's driving licence for driving over the speed limit, or for driving with more than the permitted blood-alcohol level. The law made the wearing of seat belts compulsory in all positions in the vehicle (with passengers penalized for their own violations), including in collective transportation such as taxis and minibuses. The legislation was accompanied by the intensification of police patrols, especially during weekends and holidays; in addition, special patrols targeted lorry and public transport vehicle drivers to enforce maximum driving hours and minimum rest periods. From 2008, measures aimed at improving the safety of motorcycle drivers by removing certain dangerous roadside elements, and specifically targeted education campaigns were also implemented. As a result, the mortality rate has decreased from the 486 deaths registered in 1991 to 197 in 2008; from 2006 there have been annual decreases in the number of deaths in the range of 20%.

### Lifestyle factors affecting health status

According to WHO, there were 26.4% of daily smokers (of the population aged 15 years and over) in 2006, the latest available year (WHO Regional Office for Europe 2009). This proportion has been declining in the last decade for the population as a whole (Table 1.6), despite the relative increase among women mentioned above. Important legislative measures to reduce the prevalence of smoking were adopted from January 2006, banning smoking from public places with some exceptions.<sup>2</sup> Alcohol consumption and alcohol-related causes of death

---

2 The 2005 Law on Tobacco banned smoking from all working or public places, the only exception being leisure businesses such as bars, cafés, restaurants and night clubs, which are allowed to choose whether they will be smoke-free or not, and must advertise this at the entrance; businesses that are over a certain size, though, are obliged to preserve a smoke-free zone by installing air-purification systems in the smoking areas (see Section 6.1 *Public health*).

have been decreasing in Spain for the last 20 years (Table 1.6). According to the last National Health Survey (ENSE 2006), 48.4% of the population aged 16 and over consumes alcohol regularly; however, hazardous drinking is present in less than 7% of men and 3% of women.

The proportion of population with overweight and obesity problems in Spain is increasing though. In 1987, 7.4% of Spanish population over 18 years old was obese (6.9% of men and 7.9% of women). By 2006, the rate had doubled to 15.6% of the adult population (15.7% of men and 15.4 % of women); when it comes to overweight, 37.8% of the adult population has a body mass index between 25 and 30; 45% among men and 30% of women (ENSE 2006). Just over 60% of the adult population reported being physically active during their leisure time (ENSE 2006). Among children and young people aged between 2 and 17 years old, 2 out of 10 were overweight while 1 in 10 was obese.

**Table 1.6**

Factors affecting health status in Spain, 1970–2006, selected years

|                                                                    | 1970  | 1980   | 1990   | 2000   | 2001   | 2003   | 2004   | 2005   | 2006  |
|--------------------------------------------------------------------|-------|--------|--------|--------|--------|--------|--------|--------|-------|
| % of regular daily smokers in the population, age 15+              | n/a   | n/a    | n/a    | n/a    | 31.70  | 28.10  | –      | –      | 26.40 |
| SDR, selected smoking-related causes of death, per 100 000         | n/a   | 266.96 | 236.07 | 193.07 | 186.83 | 183.63 | 170.78 | 169.70 | –     |
| Pure alcohol consumed, litres per capita, age 15+                  | 11.61 | 13.63  | 10.78  | 9.82   | 9.79   | 9.99   | –      | –      | –     |
| SDR, selected alcohol-related causes of death, per 100 000         | n/a   | 106.08 | 108.15 | 56.53  | 54.00  | 52.88  | 51.37  | 49.50  | –     |
| Overweight population<br>% total population 25<BMI<30 <sup>a</sup> | n/a   | n/a    | n/a    | n/a    | 35.7   | 35.3   | –      | –      | 37.05 |
| Obese population % total population BMI>30 <sup>a</sup>            | n/a   | n/a    | n/a    | n/a    | 12.6   | 13.1   | –      | –      | 14.90 |

Sources: WHO Regional Office for Europe 2009; <sup>a</sup> OECD 2009b.

## Self-reported health status

There is a slight declining trend in the self-reported general health status of the Spanish population; the National Health Survey of 1987 (ENSE 1987) reported 73.9% of the population (77.9% of men and 70% of women) assessing their general health status positively, while in 2006, this group amounted to 70% of the population (ENSE 2006). Men tend to report better health status than women: 75.1% men assess their health as good or very good compared to 65% of women. The positive perception of health status decreases with age: for the group aged 75 and over, only 41.6% of men and 29.1% of women report

good health status. A certain socioeconomic gradient can also be observed: the less affluent groups tend to declare worse health status than the group at the other end of the range, differing by around 15 percentage points for both sexes.

Mental health status was specifically assessed for the first time in the National Health Survey of 2006, using the tools GHQ-12 for adults and SDQ (Strengths and Difficulties Questionnaire) for children. These tools allow for population screening for psychiatric morbidity or psychological suffering. The survey yielded 21.3% of the population aged 16 and over (15.6% of men and 26.8% of women) showing some risk of mental illness. This risk increases with age; thus, within the group aged 75 and over, the proportion at risk increases to 25% in men and 39.5% among women. Regarding the population in the age group between 4 and 15 years old, 22.1% show some risk of mental illness (23.2% for boys and 21% among girls).

## Disability and dependency

Spain has consistently ranked among the five countries with the longest disability-adjusted life expectancy (DALE) in the world, well above the EU15 average of 71.7 years (Table 1.7). Spanish people have experienced continuing increases in life expectancy over many decades. However, with the increasing prevalence of chronic diseases, there has been an international debate as to whether these added years of life expectancy are years spent in good or poor health. Table 1.7 shows how, in the case of Spain, DALE for both men and women has been increasing over the last decade (see notes under the table for the break in series due to changes in the method of calculation in 2004). This can be interpreted as Spanish people's increasing life expectancy being associated with a "compression of morbidity". In other words, the added years of life expectancy are more often years in better health.

Indeed, the National Health Survey (ENSE 2006) results show that 65.6% of the population aged 65 and over declared they were able to carry out the eight activities related to personal care (74.4% of males and 59.1% of females). In addition, 61.4% of them considered that they could carry out the 13 activities related to household chores (67.1% of males and 57.2% of females), and 68.6% felt themselves capable of carrying out the six activities related to mobility (77.5% of males and 62.0% of females).

**Table 1.7**

DALE and estimated life expectancy, 1999

|                                    | 1999  | 2000  | 2001               | 2002               | 2003               | 2004               | 2005  | 2006  | 2007  |
|------------------------------------|-------|-------|--------------------|--------------------|--------------------|--------------------|-------|-------|-------|
| DALE <sup>a</sup>                  | 72.75 | 70.70 | 70.90              | 72.60              | –                  | –                  | –     | –     | –     |
| DALE (male)                        | 69.80 | 68.50 | 68.70              | 69.90              | –                  | –                  | –     | –     | –     |
| DALE (female)                      | 75.70 | 72.90 | 73.00              | 75.30              | –                  | –                  | –     | –     | –     |
| Estimated life expectancy          | 78.70 | 78.76 | 78.90              | 79.60              | 80.00              | 80.00              | –     | –     | –     |
| Estimated life expectancy (male)   | 75.30 | 75.10 | 75.30              | 76.10              | 76.00              | 77.00              | –     | –     | –     |
| Estimated life expectancy (female) | 82.10 | 82.44 | 82.60              | 83.00              | 83.00              | 83.00              | –     | –     | –     |
| HALE male <sup>*</sup>             | 65.60 | 66.50 | 66.00              | 66.60 <sup>e</sup> | 66.80 <sup>e</sup> | 62.50 <sup>b</sup> | 63.20 | 63.70 | 63.20 |
| HALE female <sup>*</sup>           | 69.50 | 69.30 | 69.20 <sup>e</sup> | 69.90 <sup>e</sup> | 70.20 <sup>e</sup> | 62.50 <sup>b</sup> | 63.10 | 63.27 | 62.90 |

Source: WHO Regional Office for Europe 2009 extracted in September 2009; <sup>\*</sup> Eurostat 2009d.

Notes: (<sup>a</sup>) Calculated using the Sullivan method based on age-specific information on the prevalence of non-fatal health outcomes. National DALE estimates are based on the life tables; (<sup>e</sup>) estimated value; (<sup>b</sup>) break in series.

In fact, despite the ageing trend in the Spanish population, the disability rate has decreased by 0.5 percentage points between 1999 and 2008, comparing the results of the Disability and Dependency Survey in 1999 with those of the year 2008 (INE 2009d). According to the most recent data, 8.5% of the non-institutionalized population (3 847 900 people) suffer some degree of disability; of those, 58% are aged 65 and over (Table 1.8). The figures suggest that disability tends to appear at later ages than in 1999, though the period of exposure to disability risk has increased due to the increase in life expectancy. A total of 608 000 people live alone. By sex, the disability rate per 1000 population aged 65 and over is higher for women (106.35) than for men (72.58); however, the male rate outweighs that of females in the group under the age of 45. The opposite is true for the age group 45 and over, with the gap broadening with age.

**Table 1.8**

Composition by age group of the non-institutionalized population with disability, 1999 and 2008

| Age   | DDS 1999                             |       | DDS 2008                             |       |
|-------|--------------------------------------|-------|--------------------------------------|-------|
|       | People with disabilities (thousands) | %     | People with disabilities (thousands) | %     |
| 0–5   | 49.6                                 | 1.4   | 60.4                                 | 1.6   |
| 6–64  | 1 406.0                              | 39.9  | 1 560.0                              | 40.5  |
| 65–79 | 1 320.5                              | 37.4  | 1 201.7                              | 31.2  |
| 80+   | 752.1                                | 21.3  | 1 025.8                              | 26.7  |
| Total | 3 528.2                              | 100.0 | 3 847.9                              | 100.0 |

Source: INE 2009d.

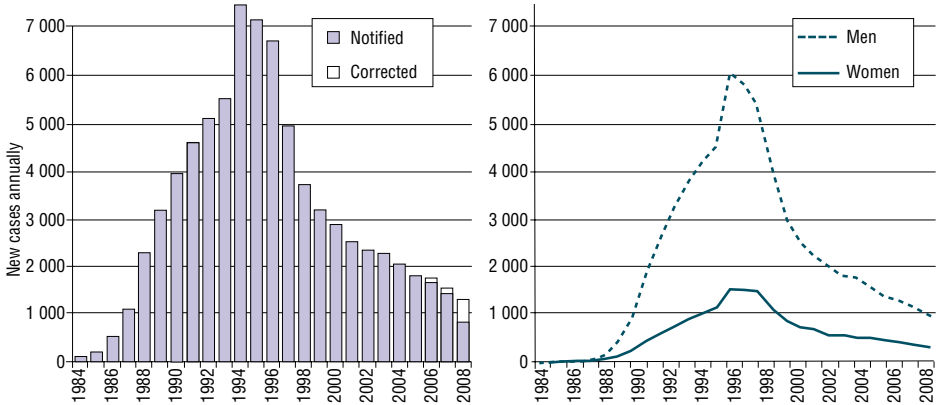
Note: DDS: Disability and Dependency Survey.

## AIDS/HIV

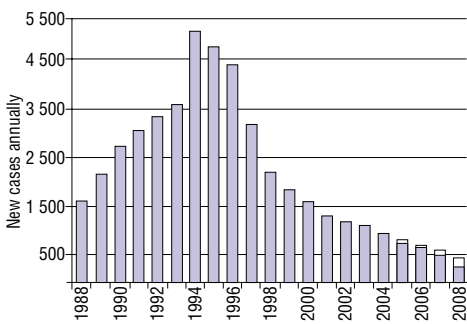
The incidence of AIDS per 100 000 in Spain in 2006 was 3.5, while the EU average was 1.37 (WHO Regional Office for Europe 2009); only Portugal (6.57) had a higher rate. However, recent data suggest that the rate of HIV infection is falling (Fig. 1.10); there is a drop in seroprevalence in intravenous (injection) drug users, the number infected by sexual practices has stabilized, and there is a substantial decrease (amounting to 80% between 1995 and 2007) in mother–child transmission of HIV. Sexual transmission is the main infection mechanism, accounting for 50% of the new cases. Annual incidence of AIDS has declined by 80% since 1996. According to the National AIDS Register, new cases diagnosed in Spain in 2008 were 6.64% below the previous year (1283 new AIDS cases). Despite this decreasing annual trend in incidence, the prevalence of AIDS continues to rise, probably due to improved survival rates. One major impact of AIDS and related factors is the resurgence of tuberculosis in Spain, reaching a peak in 1987 (around 35 per 100 000) and generally declining ever since though not receding. In 2007, Spain registered the second highest incidence per 100 000 at 16.85, below only Portugal and well above the EU15 average of 9.15 (Fig. 1.11). This rate seems to have remained stable for the last decade both in Spain and the comparable group of EU countries (WHO Regional Office for Europe 2009). It can be argued that the significant flow of immigration from eastern Europe and from outside Europe may also play a role in keeping these relatively high incidence rates.

**Fig. 1.10**

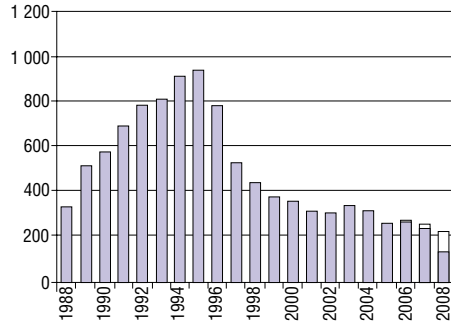
Annual incidence of AIDS in Spain by sex and means of transmission, 1984/1988–2008



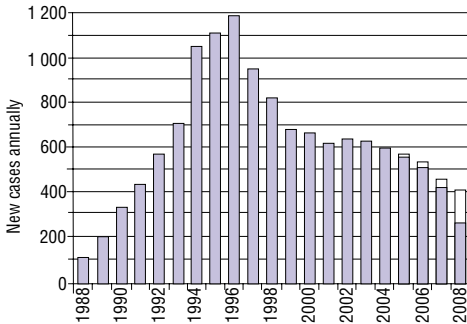
Intravenous drug use



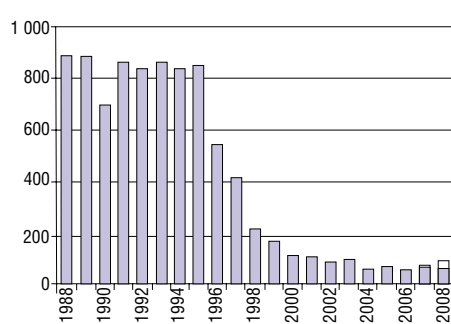
Male homosexual practices



Heterosexual practices



Mother-child

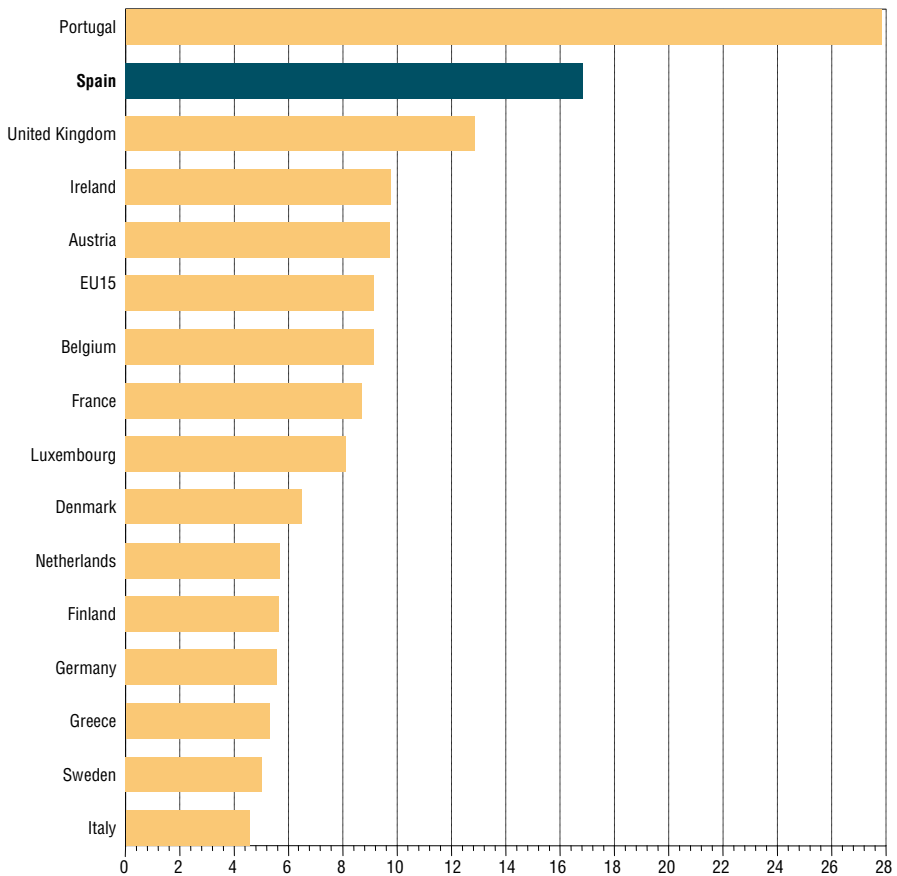


Source: MSPS 2009m.



**Fig. 1.11**

Annual incidence of tuberculosis per 100 000 in EU15 countries, 2007



Source: WHO Regional Office for Europe 2009.

## Illegal drugs use

Drug addiction in Spain is an important public health and social problem. According to the European Monitoring Centre for Drugs and Drug Addiction *Statistical Bulletin 2009* (EMCDDA 2010), based on the results of the biennial Domiciliary Survey on Alcohol and Drugs in Spain (EDADES), cannabis is the illegal substance most commonly used in the country. In 2005, 28.6% of the respondents aged 15–64 reported lifetime use of cannabis, followed by cocaine (7.0%) and Ecstasy (4.4%), while the same proportion reported use of amphetamines and hallucinogens (3.4%). In 2007, 27.3% of the respondents

reported lifetime use of cannabis, followed by cocaine (8.3%), Ecstasy (4.2%) and amphetamines (3.8%). In 2007, last-year prevalence of cannabis was 10.1% (11.2% in 2005), and last-month prevalence, 7.1%. These figures are among the highest in EU together with the United Kingdom. The use of sedatives (tranquillizers and/or sleeping pills) increased from 5.1% in 2005 to 8.6% in 2007. Between 2005 and 2007, cannabis use fell and cocaine powder use remains stable after several years of continuous increase. In the same period, experimentation with and use of base cocaine (crack) grew considerably. Use of Ecstasy, amphetamines and hallucinogenic drugs has stabilized or is decreasing. Use of heroin and volatile inhalants remains at low levels; since 1999, however, a trend towards an increase in experimentation with these substances has been observed.

Turning to the younger group of the population, the highest last-month prevalence of cannabis use among 15- to 16-year-olds in Europe is reported by Spain (20%), followed by the Czech Republic (18%). Among school students, only Spain and the Czech Republic report levels of lifetime prevalence of cannabis use that are comparable to those reported in the United States and Australia. For Ecstasy use among young adults (15–34), the picture is more mixed. After general increases in use in some European countries in the late 1980s and early 1990s, leading to similar levels of Ecstasy use in Germany, Spain and the United Kingdom in the mid 1990s, last-year prevalence of use has decreased to an estimated European average of 1.6%. Cocaine could be replacing amphetamines and Ecstasy in some countries and among some sectors of the drug-using population. This hypothesis can be illustrated in the United Kingdom and, to some extent, in Spain and other countries such as Denmark, where concurrent increases in cocaine consumption and decreases in the use of amphetamines have been observed (EMCDDA 2008). Overall, cocaine use appears to be concentrated in a few countries, notably Spain, Denmark, Italy, Ireland and the United Kingdom, while use of the drug remains relatively low elsewhere in Europe. Use is particularly high among young males (15–34 years), with last-year prevalence of cocaine use reported at between 4.2% and 7.7% in Spain, Denmark, Ireland, Italy and the United Kingdom. In most countries, the male-to-female ratio for last-year prevalence of cocaine use among young adults is at least 2:1. Two countries, Spain and the United Kingdom (England and Wales), report higher figures than Australia, and only Spain reports a higher estimate than that of the United States.

## Vulnerable groups and health inequalities

The trade-off between efficiency and equity within the Spanish national health system (SNS) has been characterized as skewed to the side of equity (SESPAS 2006). Most of the issues seem to be related to moral hazard (overuse of ineffective services offered free of charge) or under-use of interventions well known as highly effective<sup>3</sup> rather than to unfair differences in access to health care linked to sex, age or socioeconomic status. However, specific action is warranted in order to prevent the underlying social gradient determined by these characteristics from becoming embedded in SNS performance, thus eventually broadening the social gap. Existing geographical differences regarding the main causes of death have been emphasized already above. The same is true for differences by sex and age. There is however a topic still to be addressed, regarding especially vulnerable groups such as *economic* immigrants and autochthonous ethnic minorities, which in the case of Spain refers exclusively to the Gypsy population.

The significant increase in immigrant residents has been already pointed out in Section 1.1 *Geography and sociodemography*. The immigrant population is typically younger and healthier than the Spanish average and thus they tend to use health services comparatively less. They are generally healthier than their fellow nationals back home due to the selection bias effect (cream-skimming of the societies of origin, also known as the *healthy immigrant effect*). However, their health is at a higher risk of deterioration due to poor, overcrowded and marginal living conditions. The Spanish legal framework entitles all residents in Spanish territory to full health coverage, regardless of their nationality and legal status. Thus, the main barriers to access are cultural and linguistic in nature (Ribera et al. 2008). The system still needs to adapt to these “new users”. Table 1.9 offers some comparative figures based on the National Health Survey 2003 (ENSE 2003).

The health status of Gypsies, who are not a migrant population, as opposed to their situation in many other European countries, has been systematically assessed using the results of the last National Health Survey in 2006 (ENSE 2006). Regarding perceived health status, differences arise only for the population aged 55 and over; for women, positive assessment is limited to 10.5% in this age group compared to 38.2% in the general population; the same is true for men in this age group, with 33.4% among Gypsies and 59.6% in the general population. These differences are modulated by the gradient of education and

---

3 This point has been extensively documented by the Medical Practice Variation Atlas Group in their reports from 2005 (<http://www.Atlasvpm.org>).

**Table 1.9**

General health status indicators: a comparison between Spanish and foreign residents

|                                                  | % Spanish residents | % foreign residents |
|--------------------------------------------------|---------------------|---------------------|
| <b>Self-assessment of health status</b>          |                     |                     |
| Very good–good                                   | 64                  | 77                  |
| Fair                                             | 26                  | 19                  |
| Bad–very bad                                     | 10                  | 4                   |
| Presence of illness in the last year (frequency) | 25                  | 16                  |
| <b>Most frequent diseases</b>                    |                     |                     |
| Arthritis                                        | 26                  | 23                  |
| Bone fracture                                    | 13                  | 15                  |
| Cardiovascular diseases                          | 4                   | 9                   |
| Digestive system disease                         | 10                  | 5                   |
| Mental disorders                                 | 8                   | 8                   |
| Problems with daily life activities (frequency)  | 36                  | 26                  |

Sources: Ribera et al. 2008. Data based on ENSE 2003.

economic level, thus, figures for subgroups with higher levels of education and better living conditions are equal to those of the general population. Some illnesses listed in the survey, such as hypercholesterolemia, depression, peptic ulcers and headaches, are reported as more frequent among the Gypsy population, and sometimes the onset seems to be at earlier ages than in the general population. Regarding prevalence of lifestyle risk factors, alcohol and tobacco consumption rates are higher among the male Gypsy population compared to the general male population and the age at which they start using alcohol and tobacco is earlier; the opposite is true for the female population. Obesity is more prevalent among the Gypsy population of all ages, but differences from the general population are especially marked in the case of women.

### Dental health and immunization

Regarding dental health, Table 1.10 shows the positive evolution over the decades of the basic indicator “decayed, missing and filled teeth” (DMFT) at age 12 years.

**Table 1.10**

DMFT at age 12 years (mean value)

| Year       | 1984 | 1994 | 2000 |
|------------|------|------|------|
| DMFT index | 4.2  | 2.3  | 1.12 |

Source: WHO Regional Office for Europe 2009.

In Spain, the public system usually offers dental care for children up to 14–18 years (depending on the region), except for braces. Framed within the SNS National Plan for Dental Health, the MSPS has funded a broad set of dental health prevention and care measures in 2008 and 2009; the interventions include annual check-ups of teeth and oral cavity, and dental treatment (fillings, endodontics, extractions and cleaning), in an attempt to homogenize basic dental care benefits for children across ACs. These earmarked subsidies have provided dental care for 867 328 children aged 7–10. This programme will continue in 2010 and will be extended to include children aged 7–12.

With regard to immunizations, Spain ranks as number five in the world for vaccine coverage. Vaccine-preventable diseases have diminished spectacularly over the last 20 years. According to UNICEF data, in Spain in 2003, there was 98% immunization for DTP3 and Pol3, 97% for measles and 83% for HepB3 (UNICEF 2010). A slight decrease has been observed in recent years; this is consistent with the trends among European and OECD countries. Some social controversy about safety of systematic vaccination may underlie this phenomenon (Table 1.11). Fig. 1.12 depicts the levels of measles immunization in the WHO European Region in 2008.

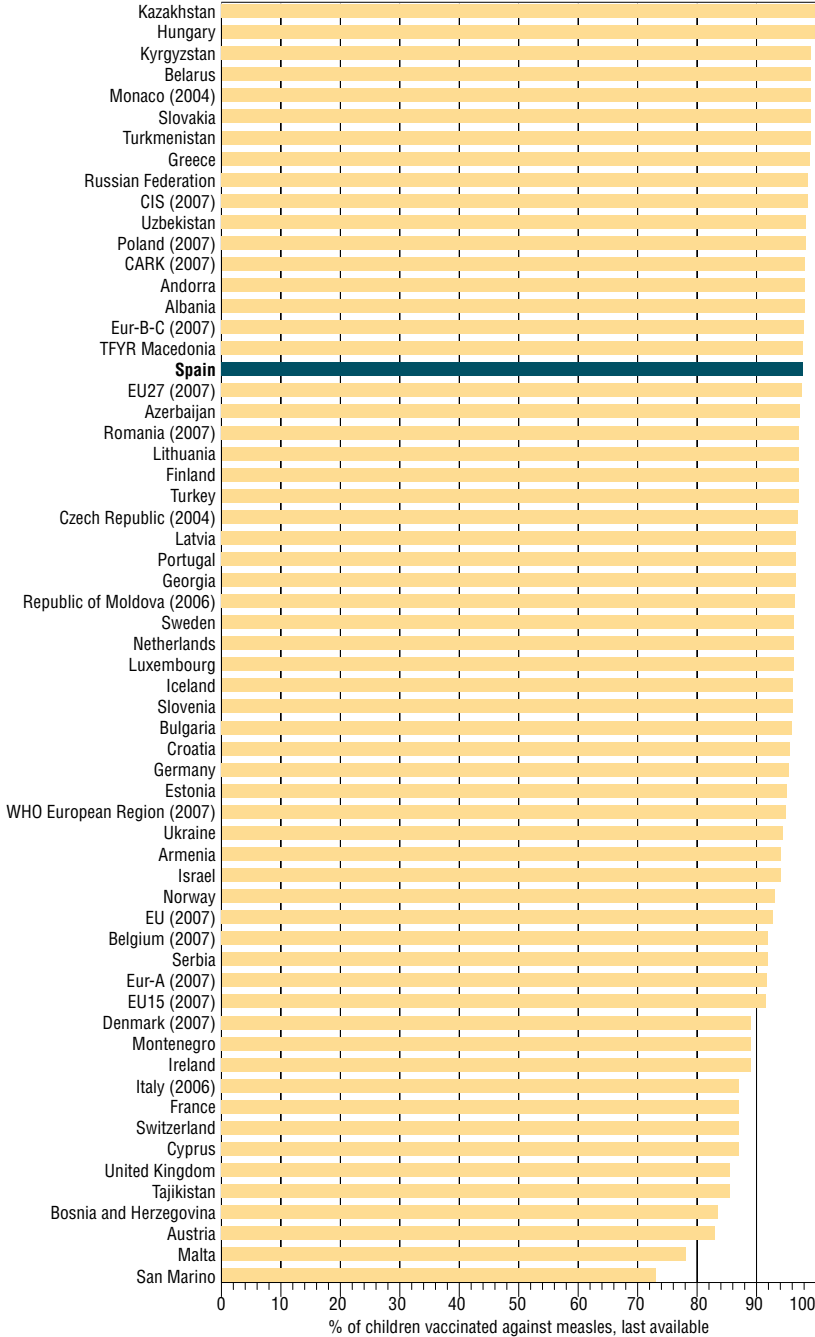
**Table 1.11**

Levels of child immunization in Spain, 1985–2007, selected years

| % infants vaccinated against | 1985  | 1990  | 1995  | 2000  | 2001  | 2003  | 2004  | 2005  | 2006  | 2007  |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Diphtheria                   | 79.00 | 93.00 | 90.00 | 95.00 | 96.00 | 98.02 | 96.40 | 96.20 | 97.90 | 96.30 |
| Tetanus                      | 87.00 | 93.00 | 90.00 | 95.00 | 96.00 | 98.02 | 96.40 | 96.20 | 97.90 | 96.30 |
| Pertussis                    | 87.00 | 93.00 | 90.00 | 95.00 | 96.00 | 98.02 | 96.40 | 96.20 | 97.90 | 96.30 |
| Measles                      | 79.00 | 99.00 | 90.00 | 94.00 | 96.00 | 97.15 | 97.30 | 96.80 | 96.90 | 97.10 |
| Poliomyelitis                | 73.00 | 94.00 | 88.00 | 95.00 | 96.40 | 98.23 | 96.70 | 96.20 | 97.90 | 96.40 |

Source: WHO Regional Office for Europe 2009.

**Fig. 1.12**  
Levels of immunization for measles in the WHO European Region,  
2008 or latest available year



Source: WHO Regional Office for Europe 2009.

## Maternal and child health

The progress made in Spain over recent decades in terms of maternal and child care has been remarkable; neonatal and perinatal mortality rates as well as maternal mortality rates are shown in Table 1.12. There was a dramatic decrease from the early 1970s until 1990, when neonatal mortality became a quarter of that registered at the beginning of the period, perinatal mortality dropped to become six times lower and so did maternal mortality (since 1970). Economic and social changes in the period, as well as the progressive extension of health care coverage and the creation of the SNS, are behind this profound change. The downward trend persisted for the rest of the 1990s until 2007 (latest figures available), obviously at a much slower pace, with rates slightly below European averages (Table 1.13).

**Table 1.12**

Main maternal and child indicators in Spain, 1960–2007

| Year | Neonatal mortality<br>(children <28 days)<br>Deaths<br>per 1 000 live births | Perinatal <sup>a</sup> mortality<br>Deaths<br>per 1 000 total births | Maternal mortality<br>Deaths per<br>100 000 total births |
|------|------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------|
| 1960 | 20.2                                                                         | 42.8                                                                 | n/a                                                      |
| 1965 | 20.0                                                                         | 37.1                                                                 | n/a                                                      |
| 1970 | 17.5                                                                         | 31.1                                                                 | 33.1                                                     |
| 1975 | 12.6                                                                         | 20.9                                                                 | 21.7                                                     |
| 1980 | 8.5                                                                          | 14.4                                                                 | 11.1                                                     |
| 1985 | 5.9                                                                          | 10.9                                                                 | 4.4                                                      |
| 1990 | 5.0                                                                          | 7.6                                                                  | 5.5                                                      |
| 1991 | 4.6                                                                          | 7.2                                                                  | 3.3                                                      |
| 1992 | 4.6                                                                          | 7.3                                                                  | 4.8                                                      |
| 1993 | 4.1                                                                          | 6.6                                                                  | 3.1                                                      |
| 1994 | 3.9                                                                          | 6.5                                                                  | 3.6                                                      |
| 1995 | 3.5                                                                          | 6.0                                                                  | 3.0                                                      |
| 1996 | 3.5                                                                          | 6.4                                                                  | 3.0                                                      |
| 1997 | 3.2                                                                          | 6.3                                                                  | 2.2                                                      |
| 1998 | 3.0                                                                          | 5.9                                                                  | 2.7                                                      |
| 1999 | 2.8                                                                          | 5.7                                                                  | 4.0                                                      |
| 2000 | 2.8                                                                          | 5.4                                                                  | 3.5                                                      |
| 2001 | 2.8                                                                          | 5.6                                                                  | 4.2                                                      |
| 2002 | 2.8                                                                          | 5.2                                                                  | 3.3                                                      |
| 2003 | 2.5                                                                          | 4.9                                                                  | 4.5                                                      |
| 2004 | 2.6                                                                          | 4.9                                                                  | 4.6                                                      |
| 2005 | 2.4                                                                          | 4.9                                                                  | 3.9                                                      |
| 2006 | n/a                                                                          | n/a                                                                  | 2.9                                                      |
| 2007 | n/a                                                                          | n/a                                                                  | 2.9                                                      |

Source: OECD 2009b.

Note: <sup>a</sup>Deaths within one week of birth plus foetal deaths (minimum gestation period 28 weeks or minimum weight 1 000 grams).

**Table 1.13**  
Main maternal and child indicators in Europe (EU15 countries), 2000–2007

|                | Infant mortality (death per 1 000 live births) |            |            |            |            |            |            | Neonatal mortality (death per 1 000 live births) |            |            |            |            |            |            |            |            |
|----------------|------------------------------------------------|------------|------------|------------|------------|------------|------------|--------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                | 2000                                           | 2001       | 2002       | 2003       | 2004       | 2005       | 2006       | 2007                                             | 2000       | 2001       | 2002       | 2003       | 2004       | 2005       | 2006       | 2007       |
| Austria        | 4.8                                            | 4.8        | 4.1        | 4.5        | 4.5        | 4.2        | 3.6        | 3.7                                              | 3.3        | 3.3        | 2.8        | 3.1        | 3.2        | 3.0        | 2.6        | 2.5        |
| Belgium        | 4.8                                            | 4.5        | 4.4        | 4.3        | 4.3        | 3.7        | —          | —                                                | 2.9        | 2.3        | 2.1        | 2.1        | 2.2        | 2.3        | —          | —          |
| Denmark        | 5.3                                            | 4.9        | 4.4        | 4.4        | 4.4        | 4.4        | 3.8        | —                                                | 4.0        | 3.5        | 3.4        | 3.2        | 3.4        | 3.3        | 3.2        | —          |
| Finland        | 3.8                                            | 3.2        | 3.0        | 3.1        | 3.3        | 3.0        | 2.8        | —                                                | 2.5        | 2.2        | 2.2        | 2.1        | 2.4        | 2.1        | 2.0        | —          |
| France         | 4.5                                            | 4.6        | 4.2        | 4.2        | 4.0        | 3.8        | 3.8        | —                                                | 2.9        | 3.0        | 2.7        | 2.8        | 2.7        | 2.5        | 2.5        | —          |
| Germany        | 4.4                                            | 4.3        | 4.2        | 4.2        | 4.1        | 3.9        | 3.8        | —                                                | 2.7        | 2.7        | —          | 2.7        | 2.7        | 2.5        | 2.6        | —          |
| Greece         | 5.4                                            | 5.1        | 5.1        | 4.0        | 4.1        | 3.8        | 3.7        | 3.6                                              | 3.9        | 3.6        | 3.5        | 2.7        | 2.6        | 2.6        | 2.5        | 2.3        |
| Ireland        | 6.2                                            | 5.7        | 5.0        | 5.3        | 4.6        | 4.0        | 3.7        | 3.1                                              | 4.3        | 4.0        | 3.6        | 3.8        | 3.4        | 2.9        | 2.6        | 2.1        |
| Italy          | 4.5                                            | 4.6        | 4.3        | 3.9        | 3.9        | 3.8        | 3.7        | —                                                | 3.2        | 3.4        | 3.2        | 2.8        | 2.8        | 2.8        | 2.7        | —          |
| Luxembourg     | 5.1                                            | 5.9        | 5.1        | 4.9        | 3.9        | 2.6        | 2.5        | —                                                | 3.8        | 3.3        | 3.6        | 2.6        | 2.2        | 1.5        | 1.5        | —          |
| Netherlands    | 5.1                                            | 5.4        | 5.0        | 4.8        | 4.4        | 4.9        | 4.4        | 4.1                                              | 3.9        | 3.9        | 3.8        | 3.6        | 3.4        | 3.7        | 3.3        | 3.2        |
| Portugal       | 5.5                                            | 5.0        | 5.0        | 4.1        | 3.8        | 3.5        | 3.3        | —                                                | 3.4        | 2.9        | 3.4        | 2.7        | 2.6        | 2.2        | 2.1        | —          |
| Spain          | 4.4                                            | 4.1        | 4.1        | 3.9        | 4.0        | 3.8        | 3.8        | —                                                | 2.8        | 2.8        | 2.8        | 2.5        | 2.6        | 2.4        | —          | —          |
| Sweden         | 3.4                                            | 3.7        | 3.3        | 3.1        | 3.1        | 2.4        | 2.8        | 2.5                                              | 2.3        | 2.5        | 2.2        | 2.2        | 2.2        | 1.5        | 1.8        | 1.7        |
| United Kingdom | 5.6                                            | 5.5        | 5.2        | 5.2        | 5.1        | 5.1        | 5.0        | 4.8                                              | 3.9        | 3.6        | 3.5        | 3.6        | 3.5        | 3.5        | 3.5        | 3.3        |
| <b>Average</b> | <b>4.9</b>                                     | <b>4.8</b> | <b>4.4</b> | <b>4.3</b> | <b>4.1</b> | <b>3.8</b> | <b>3.6</b> | <b>3.6</b>                                       | <b>3.3</b> | <b>3.1</b> | <b>3.1</b> | <b>2.8</b> | <b>2.8</b> | <b>2.6</b> | <b>2.5</b> | <b>2.5</b> |

|                | Perinatal mortality (death per 1 000 total births) |            |            |            |            |            |            | Maternal mortality (death per 100 000 total births) |            |            |            |            |            |            |            |            |
|----------------|----------------------------------------------------|------------|------------|------------|------------|------------|------------|-----------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                | 2000                                               | 2001       | 2002       | 2003       | 2004       | 2005       | 2006       | 2007                                                | 2000       | 2001       | 2002       | 2003       | 2004       | 2005       | 2006       | 2007       |
| Austria        | 6.7                                                | 6.2        | 6.4        | 6.4        | 6.1        | 5.9        | 6.0        | 5.9                                                 | 2.6        | 6.6        | 2.6        | 2.6        | 3.8        | 3.8        | 2.6        | 3.9        |
| Belgium        | 6.7                                                | 7.0        | 6.7        | 6.8        | 6.4        | 5.9        | —          | —                                                   | 8.1        | 7.6        | 6.9        | 3.3        | 2.5        | 7.7        | 7.0        | —          |
| Denmark        | 7.0                                                | 6.8        | 6.2        | 6.4        | 7.7        | 7.6        | —          | —                                                   | —          | —          | 10.9       | 10.8       | 9.2        | 7.7        | 9.2        | 14.0       |
| Finland        | 5.8                                                | 5.2        | 4.9        | 4.8        | 4.0        | 3.7        | 3.9        | —                                                   | 5.3        | 5.3        | 5.4        | 3.5        | 12.2       | 5.2        | 6.8        | 1.7        |
| France         | 6.9                                                | 7.1        | 10.2       | 11.1       | 11.1       | 10.8       | 11.2       | —                                                   | 6.5        | 7.3        | 8.8        | 7.2        | 6.8        | 5.3        | —          | —          |
| Germany        | 6.1                                                | 5.9        | —          | 5.9        | 5.9        | 5.5        | 5.5        | —                                                   | 5.6        | 3.7        | 2.9        | 4.2        | 5.2        | 4.1        | 6.1        | 4.1        |
| Greece         | 7.9                                                | 8.0        | 7.2        | 6.6        | 6.3        | 5.7        | 4.9        | 3.9                                                 | —          | 3.9        | 1.0        | 1.9        | 2.8        | 0.0        | 1.8        | 1.8        |
| Ireland        | 9.0                                                | 9.2        | 9.0        | 8.5        | 7.8        | 6.2        | —          | —                                                   | 1.8        | 5.2        | 8.3        | 0.0        | 1.6        | 3.1        | 0.0        | 1.4        |
| Italy          | 5.6                                                | 5.7        | 5.4        | 5.1        | 5.1        | 5.2        | 5.2        | —                                                   | 3.0        | 2.1        | 3.4        | 5.2        | —          | —          | 2.0        | —          |
| Luxembourg     | 7.3                                                | 7.9        | 7.6        | 6.0        | 5.3        | 4.9        | 3.3        | —                                                   | 17.5       | —          | —          | —          | 18.3       | 18.6       | 0.0        | —          |
| Netherlands    | 7.8                                                | 7.9        | 7.4        | 6.6        | 6.9        | 6.0        | 5.7        | —                                                   | 8.7        | 6.9        | 9.9        | 4.0        | 5.2        | 8.5        | 8.1        | 5.0        |
| Portugal       | 6.2                                                | 5.6        | 6.0        | 5.1        | 4.4        | 4.3        | 4.6        | —                                                   | 2.5        | 6.2        | 6.1        | 7.1        | 8.2        | 2.7        | 5.7        | —          |
| Spain          | 5.4                                                | 5.6        | 5.2        | 4.9        | 4.9        | 4.9        | —          | —                                                   | 3.5        | 4.2        | 3.3        | 4.5        | 4.6        | 3.9        | 2.9        | 2.9        |
| Sweden         | 5.6                                                | 5.7        | 5.3        | 5.2        | 4.9        | 4.1        | 4.4        | 4.3                                                 | 4.4        | 3.3        | 4.2        | 2.0        | 1.0        | 5.9        | 4.7        | —          |
| United Kingdom | 6.9                                                | 8.0        | 8.2        | 8.5        | 8.2        | 8.0        | 7.9        | 7.7                                                 | 6.8        | 7.5        | 6.0        | 7.9        | 7.7        | 5.7        | 7.2        | 6.9        |
| <b>Average</b> | <b>6.7</b>                                         | <b>6.7</b> | <b>6.7</b> | <b>6.5</b> | <b>6.3</b> | <b>6.0</b> | <b>5.7</b> | <b>5.5</b>                                          | <b>5.9</b> | <b>5.4</b> | <b>5.7</b> | <b>4.6</b> | <b>6.4</b> | <b>5.9</b> | <b>4.6</b> | <b>4.6</b> |

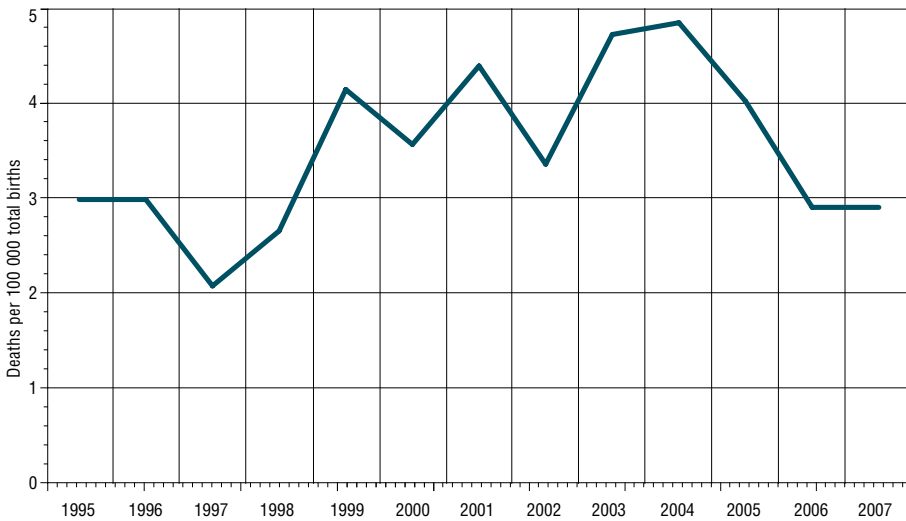
Source: OECD 2009b.



Despite the low figures achieved, a closer look at the evolution of the maternal mortality rate in the last decade reveals a slight peak around 2004 (Fig. 1.13), while the trend for perinatal mortality remains unchanged. This reflects a well-known phenomenon around Europe: the delay in maternity and the progressive rise in maternal age at date of birth have resulted in higher female morbidity and mortality.

**Fig. 1.13**

Maternal mortality in Spain, 1995–2007



Source: OECD 2009b.

A recent study (Luque Fernández et al. 2009) shows the high prevalence of pregnancies among women aged 35 years and over in Spain versus other European countries (Table 1.14). This change in pattern suggests the need to intensify maternal mortality surveillance in Spain; collecting the necessary set of variables to allow investigation of the causes and determinant factors underlying deaths, such as socioeconomic and health care circumstances surrounding deaths, would be very useful.

A National Strategy for Care in Normal Delivery (see Chapters 2 and 4, relevant sections on the SNS National Quality Plan) has been implemented as from 2007 and is expected to help in further decreasing morbidity and mortality.

**Table 1.14**

Prevalence of live births among women aged 35 years and over for 15 European countries (EU15), 2000–2005

| Countries(EU15)          | LBMA ≥ 35 years (n) | Total live births (N) | Prevalence % (P) |
|--------------------------|---------------------|-----------------------|------------------|
| Italy                    | 750 190             | 3 176 749             | 23.6             |
| Ireland                  | 83 441              | 355 940               | 23.4             |
| Spain                    | 565 354             | 2 585 701             | 21.9             |
| Sweden                   | 110 412             | 579 153               | 19.1             |
| Netherlands              | 228 506             | 1 193 527             | 19.1             |
| Luxembourg               | 6 103               | 32 616                | 18.7             |
| Germany                  | 797 526             | 4 318 210             | 18.5             |
| Finland                  | 62 703              | 340 619               | 18.4             |
| United Kingdom           | 757 974             | 4 150 737             | 18.3             |
| Austria                  | 72 212              | 404 309               | 17.8             |
| France                   | 786 333             | 4 807 827             | 16.3             |
| Greece                   | 101 912             | 626 738               | 16.2             |
| Denmark                  | 62 301              | 390 264               | 16.0             |
| Portugal                 | 100 083             | 678 359               | 14.8             |
| Belgium                  | –                   | –                     | –                |
| Total (EU15) (reference) | 4 486 050           | 23 640 749            | 19.0             |

Source: Luque Fernández et al. 2009.

Note: LBMA: live births with maternal age.

Regarding voluntary abortion rates, the current legal framework is ruled by the Organic Law 9/1985, which legalized abortion under certain circumstances (such as rape and threat to the mother's life or mental health). The broad interpretation of the criterion based on threat to the mother's mental health opened the door to a less restrictive utilization of the procedure than the law may suggest, though. Not without some polemic over the years from anti-abortion lobbies, a new law was passed in March 2010 (in force from September 2010), in which the only limitation for abortion is related to gestation period. Table 1.15 shows the trends in abortion cases per AC in recent years. The number of cases has increased over the years; the age group between 20 and 24 years old registered the higher rates per 1000 women all through the period, by 2007 reaching treble the number of cases in 1992. Abortion for those under the age of 19 years has also increased notably, and this increase has been particularly fast since the late 1990s.

**Table 1.15**  
Number of abortions in Spain, 1992–2007

|                                       | 1992   | 1993   | 1994   | 1995   | 1996   | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006    | 2007    |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| Centres notifying abortion procedures | 87     | 95     | 101    | 102    | 106    | 115    | 117    | 123    | 121    | 121    | 124    | 128    | 133    | 134    | 135     | 137     |
| Total abortion cases                  | 44 962 | 45 503 | 47 832 | 49 367 | 51 002 | 49 578 | 53 847 | 58 399 | 63 756 | 69 857 | 77 125 | 79 788 | 84 985 | 91 664 | 101 592 | 112 138 |
| <b>Abortion rates per 1 000 women</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         |
| 15–44 years old                       | 5.10   | 5.15   | 5.38   | 5.53   | 5.69   | 5.52   | 6.00   | 6.52   | 7.14   | 7.66   | 8.46   | 8.77   | 8.94   | 9.60   | 10.62   | 11.49   |
| <19 years old                         | 3.93   | 3.89   | 4.22   | 4.51   | 4.91   | 5.03   | 5.71   | 6.72   | 7.49   | 8.29   | 9.28   | 9.90   | 10.57  | 11.48  | 12.53   | 13.79   |
| 20–24 years old                       | 7.54   | 7.75   | 7.92   | 8.16   | 8.35   | 8.13   | 9.13   | 10.26  | 11.88  | 12.86  | 14.37  | 15.31  | 15.37  | 16.83  | 18.57   | 20.65   |
| 25–29 years old                       | 6.15   | 6.44   | 6.66   | 6.32   | 7.02   | 6.84   | 7.35   | 7.90   | 8.66   | 9.34   | 10.72  | 11.30  | 11.43  | 12.60  | 14.44   | 15.57   |
| 30–34 years old                       | 5.35   | 5.40   | 5.73   | 5.76   | 5.89   | 5.57   | 5.99   | 6.37   | 6.90   | 7.44   | 8.10   | 8.28   | 8.57   | 9.07   | 10.12   | 11.07   |
| 35–39 years old                       | 4.54   | 4.37   | 4.57   | 4.54   | 4.70   | 4.45   | 4.65   | 4.86   | 5.11   | 5.42   | 5.84   | 6.02   | 6.12   | 6.48   | 7.34    | 7.67    |
| >40 years old                         | 2.34   | 2.26   | 2.36   | 2.43   | 2.37   | 2.27   | 2.35   | 2.34   | 2.35   | 2.47   | 2.72   | 2.69   | 2.69   | 2.87   | 3.05    | 3.25    |

Sources: INE 2009a; MSPS 2010b.

According to the Sexual Health and Habits Survey of the MSPS 2003 (MSPS 2003), the average age for first sexual intercourse in the group below the age of 30 is 17.5 years for boys and 18.2 for girls. However, for the group aged 18 and 19, first intercourse was on average at the age of 16.4 years for boys and 16.6 for girls; 23.8% of the boys and 18.9% of the girls between 18 and 19 had initiated sexual activity before the age of 16. A package of comprehensive measures targeted at young segments of the population in relation to sexual and reproductive health was launched in 2007; it aimed to enhance reduction of pregnancy among adolescents and to control sexually transmitted infectious diseases (STID). During the 1980s and 1990s, STID registered a downward trend, with a reversal in 2001 when the National Registry of Notifiable Diseases yielded 805 cases of gonococcal infection, rising to 1174 by 2005; the same is true for syphilis, with 700 cases notified in 2001 and 1255 cases in 2005.

The results of the new wave of the National Sexual Health Survey 2009, published by the MSPS in 2010 (MSPS 2010d), show even younger ages for sexual intercourse, with 55% of women aged 16–24 having their first contact before 16 years old (and almost 65% of the men in the same age group). Of these women, 35% said they had not used any contraceptive method in this first contact (either themselves or their partner), although around 20% of them argue it was not needed due to the type of sexual practice. Likewise, the proportion of men in the 16–24 age group reporting not having used contraception in their first contact is around 35%, and more than 20% declared it was not necessary given the type of practice. These results warrant sustained intensive public health intervention.

## 2. Organizational structure

### 2.1 Overview of the health system

The statutory SNS is universal coverage-wise, almost fully funded from taxes<sup>1</sup> and predominantly within the public sector. Provision is free of charge at the point of delivery, with the exception of pharmaceuticals prescribed to people aged under 65, which entail co-payment of 40% of the retail price.<sup>2</sup>

After a 25-year transition from a centralized model of legislation, and planning and provision of health services, health competences were totally devolved to the regional level (AC) from the end of 2002; this devolution resulted in 17 regional ministries or departments of health with primary jurisdiction over the organization and delivery of health services within their territory, thus health expenditure is mainly determined by the regional administrations. Recent modifications of the mechanism for regional funding also sought to increase normative competences on revenue raising (taxation); this point is further explained in Chapter 3.

The national Ministry of Health and Social Policy (MSPS) is therefore vested with only a limited extent of powers. It has authority over legislation on pharmaceuticals and is the guarantor of the equitable functioning of health services across the country; this last competence includes the definition of the basic benefits basket, the setting of minimum thresholds for services regarding expenditure and quality, and a performance monitoring function (termed “high inspection”). In essence, the Ministry has the challenging mandate of playing

---

1 Around 2% of the total funding comes from the social security fund attributable to the special regime for civil servants, catered for by three publicly funded mutual funds: MUFACE, MUGEJU and ISFAS (further description of civil servants' unique status can be found under Section 2.2 *Historical background: devolution's path*).

2 Patients with certain chronic diseases are exempt from this co-payment. User co-payments for pharmaceuticals were widely introduced in 1978 for social security users below 65 years of age, initially amounting to 20% of the actual retail price of prescription drugs (it would be subsequently raised to 30% in 1979 and to the current 40% from 1980). Drugs prescribed under an inpatient regime are excluded.

the core role in the coordination of the SNS spread through 17 regional health systems, which are accountable only to the regional parliaments and thus not hierarchically linked to the national level. Indeed, this framing prescribes negotiation, consensus and additional earmarked funding as the key drivers of policy-making within the SNS; most of this dialogue takes place within the Inter-territorial Council of the national health system (CISNS). Conceived as the highest body for coordination, the CISNS comprises the 17 regional ministers of health, chaired by the national minister. The national Ministry, in its capacity as the coordinator of the SNS, plays the secretariat role, elaborating the proposals and executing the agreements reached within the Council and holding the responsibility for seeking adoption of the recommendations of the CISNS (for a thorough description of the functioning of CISNS see Section 2.3 *Organizational overview*).

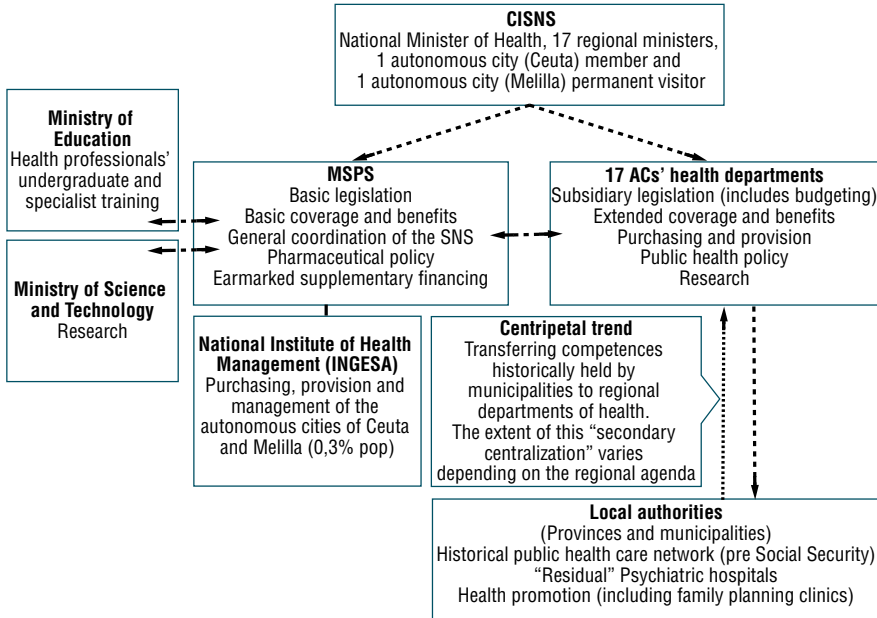
Other stakeholders such as the national Ministry of Education and the Ministry of Science and Innovation, as well as municipalities, play some role in the overall structure of the SNS. Fig. 2.1 illustrates the nature of these roles.

In addition, it is only recently that the national Ministry has been invested with the responsibility for social policy (traditionally linked to the Ministry of Labour and briefly to the Ministry of Education), with the mandate to implement the brand new National System for Autonomy and Assistance for Situations of Dependency (SAAD). This configuration is so recent – dating only from June 2009 – that no functional consequences of integrating social policy with health policy can be reported as yet. Primary jurisdiction over services administration and delivery, and cash transfers within the SAAD is also held by regional governments; hence the role of the national administration in social services is similar to that performed regarding health; likewise, the existing governance structure contemplates an Inter-territorial Council of the SAAD, so far integrated by the regional Minister holding the social services portfolio in each AC (often the Minister of Labour and Employment) and the corresponding national Minister (now the Minister of Health and Social Policy). The linking (if any) to the existing health governance framework is still to be fully spelled out.

## 2.2 Historical background: devolution's path

The development of Spanish social protection began during the last quarter of the 19th century, within the framework of the newly created Commission on Social Reforms. During the early 1900s, the National Institute of Social Insurance (*Instituto Nacional de Previsión*, INP) was created to coordinate

**Fig. 2.1**  
Statutory national health system



the design and implementation of the first social insurance policies. The first attempt to develop social health insurance for low-paid workers was launched by the INP during the Second Republic (1931–1936). At that time, all political parties supported the introduction of a comprehensive social insurance scheme, although under different ideological and political motivations. In 1936, the coup by General Franco started a civil war (1936–1939) that led to the establishment of an authoritarian regime which lasted until his death in 1975. After the civil war, many of the previous policy proposals were somehow recovered by the Francoist government. Social security-related health care was run by the Ministry of Labour and Social Security through the INP from 1942 to 1977. During the 1940s and 1950s, the means-tested public health care system remained largely marginal in terms of population coverage and extent of benefits. To illustrate, in 1942, the public insurance system covered 20% of the population, in 1950 30% and in 1960 45%. The Basic Social Security Act of 1967 initiated the expansion of coverage to self-employed professionals and qualified civil servants. As a result, the percentage of the population covered rose from 53.1% in 1966 to 81.7% in 1978.

During the 1960s, the social security system developed an extensive publicly owned network of centres and services for general medical care, specialized outpatient care and inpatient care. Activity reached its highest point with the development of an extensive modern public hospital network during the 1960s and 1970s. Since the mid-1960s, the public sector has owned 70% of available hospital beds and employed 70–80% of hospital doctors. This is in fact one of the most characteristic features of the Spanish system today and explains why the vast majority of health care providers are publicly owned, as well as the high proportion of civil servants and public employees among staff in the health services.

Social security health care was run by the Ministry of Labour and Social Security until 1977, between 1977 and 1981 by the brand new Ministry of Health and Social Security, and from then on, by the Ministry of Health. Its networks of health care centres and services were managed from 1942 by the INP, and from 1978 to 2002 by the National Institute of Health (*Instituto Nacional de la Salud*, INSALUD), the highest health care management authority in the country, although hierarchically subordinated to the corresponding ministry.

By the end of the 1970s, the imbalance between the modern hospital network and the sketchy general medicine network was overwhelming, in terms of budget, infrastructure and human resources. Provincial delegations were the highest government authority at local level, headed by a provincial director appointed by the corresponding ministry. Within provinces, both ambulatory clinics and hospitals had a similar organizational structure (a medical director and a directorate, mainly comprising social security civil servants, together with some representatives from health care personnel, the Francoist trade union and the Medical Colleges Organization – *Organización Médica Colegial*, OMC). Organization of the primary level of care, on the other hand, was highly fragmented, with responsibilities divided among different parts of the state and largely uncoordinated.

Responsibility for public health was historically attributed to the central government and, in particular, to the Ministry of *Gobernación*, equivalent to Home Affairs, the origin of which goes back to 1855. The role of the government was to focus on health problems that affect the overall population, leaving personal health care to the health care networks described above. Basically, the public health infrastructure and facilities varied only slightly, with some “tidal” decentralization and recentralization waves. This was originally complemented by a network of general hospitals or hospices, owned by municipalities and



provinces, and devoted to charitable health care and infectious diseases; the role of these institutions declined progressively as the social security centres took over a pivotal role in health care provision. The exception was mental health care, which remained largely provided in psychiatric hospitals owned by local government. Other health care supplementary networks included: health care for the military (Ministry of Defence); university hospitals (Ministry of Education); and prison health services (Ministry of Home Affairs).

Such was the landscape at the start of the transition to democracy in 1976. Therefore, the main problems to be tackled by democratic governments were as follows.

- The variety of health care networks and the number of different departments to whom the networks were accountable led to poor coordination and inadequate organization. For instance, 53 departments across different ministries held health care responsibilities at the central level.
- Primary health care and preventive care were severely underdeveloped and split off from the main health care networks. A significant proportion of health care (in particular, curative) services was provided by the social security system run by the Ministry of Labour and Social Affairs (which was quite hospital-centred), while public health services were the responsibility of the state (Ministry of Governance). Charitable health care and mental health care – primarily dependent on local government – supported individuals not covered by social security.
- The geographical distribution of health care structures and resources was extremely uneven, with a clear bias against less affluent areas of the country and rural settings.
- There was no universal coverage and there were serious inequities between the three resulting tiers: those with health care needs and restricted access to the limited charity-based network; the bulk of salaried workers covered by the social security network; and higher socioeconomic groups which mostly used private health care, especially for primary and preventive care.

In 1977, all health-related programmes, departments and centres were integrated as the responsibility of a newly created Ministry of Health and Social Security. The 1978 Constitution established the right of all Spaniards to health protection and set out a new regionally based organizational framework. The basic constitutional objectives were defined as: recognizing the right of

all Spaniards to a healthy environment and adequate public health services; defining the territorial division of powers in the fields of public health and health care; and achieving equity in the territorial distribution of health care resources, as well as in access to health care. Ultimately, this allowed universal coverage and significant decentralization of the health care system, which was implemented incrementally. The first steps taken by the central government were as follows.

- First, in 1979, the responsibility for health care administration was given to a separate organization called INSALUD, which was subordinated to the Ministry of Health and was nationwide in scope.
- Second, the training process for GPs was modified, following the introduction of family and community medicine as a separate specialty in the competitive national medical resident interns programme (MIR) in 1978.
- Third, the first stages of the process of decentralization to regions were implemented (see Fig. 2.2).

These reforms paved the way for the Health Care General Act (LGS 1986) that gave birth to the SNS; developed by the first socialist party (PSOE) government of the restored democracy (1982–1986), it meant the formal transition from a system of social security (Bismarck model) to a national health service (Beveridge model), with a progressive transition from payroll contributions to general taxation as the main source of financing. Three publicly funded mutual funds were the exception: MUFACE, MUGEJU and ISFAS, which cater exclusively to civil servants in government departments, and occupy a unique quasi-public position; civil servants are the only group eligible to opt out of the SNS, and may choose fully private provision.<sup>3</sup> LGS 1986 defines the SNS as the ensemble of “all structures and public services at the service of health”, and “the combination of state administration and ACs’ health services”. The general principles are:

- universal coverage with free access to health care for all citizens;
- public financing, mainly through general taxation;
- integration of different health service networks under the SNS structure;

---

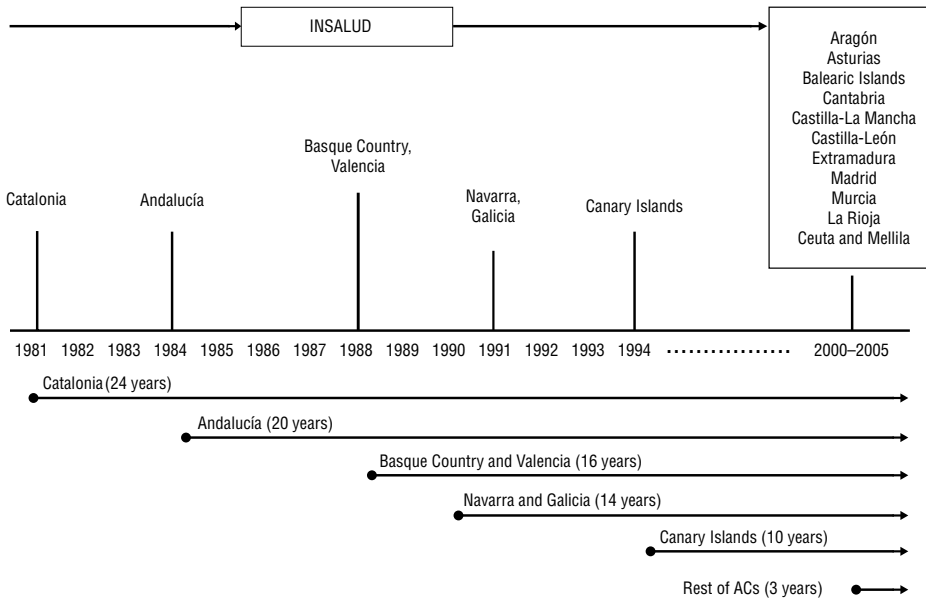
<sup>3</sup> In 2008, this group represented 2 242 783 people, 4.8% of the Spanish population; around 14% of them opt for public provision. This number has remained stable for the last five years (MUFACE 2008; ISFAS 2008; MUGEJU 2008).

- political devolution to the ACs and region-based organization of health services into health areas and basic health zones; and
- a new model of primary health care, emphasizing integration of promotion, prevention and rehabilitation activities at this level.

During the late 1980s and 1990s, most of the reforms prescribed by the LGS 1986 were progressively introduced. Decentralization was an incremental process. As a common base, public health and health care planning competences had been transferred to all 17 ACs between 1979 and 1981. In addition, all ACs were given jurisdiction over the multiple local public health care networks, many of which had been in existence even prior to the inception of the social health insurance (SHI) system. These included the earlier networks for monitoring and treatment of infectious diseases, the charity-based system, most health promotion and prevention activities, the previous network of rural primary care, psychiatric care and some community care programmes (pre-SHI networks). These pre-SHI networks represented about 15% of total expenditure on health, and their management constituted the embryo of the regional health service created by each of the regional governments in getting ready for the transfer of the SHI health network at a later stage (i.e. the remaining 85% of health expenditure). The duties of the regional health services were (and still are) management of the health system and provision of the corresponding services (initially just the primitive networks listed above) within their territory. They fell under the jurisdiction of the corresponding regional ministry of health; at the time these regional ministries were in charge of planning and monitoring, and had only subsidiary legislation capacity.

INSALUD managed the SHI network centrally from 1978; the transference to the regional health services was sequential and extended from as early as 1981 to the last transfers in 2002 (see Fig. 2.2), yielding two tiers of devolution progressing at different speeds.

- The fast track was adopted for ACs with a self-governing tradition dating from before the dictatorship period (the Basque Country, Navarra and Catalonia) or backed up by a strong regional identity (Galicia, Valencia, Andalucía and the Canary Islands). These seven ACs, which represent two-thirds of the Spanish population, reached almost full health competences between 8 and 20 years earlier than the others.
- The second tier, amounting to the remaining one-third of the population distributed in 10 ACs, stayed within the INSALUD and therefore under direct control and supervision of the central administration until 2002.

**Fig. 2.2****Chronology of devolution of health competences to ACs**

Source: Ministry of Health and Consumer Affairs 2004, taken from Durán, Lara & van Waveren 2006.

The direct consequence of this fragmented process, going at two different speeds, was a whole range of levels of management experience and traditions across the different regional governments. This certainly contributed to the variety and richness sought through decentralization. It allowed for a certain amount of experimentation, especially in the case of the fast-tracked ACs, and, in any event, fostered the needed capacity-building in the periphery (concerning structure, but also in terms of managerial capacity and, more generally, in terms of organizational culture). It prepared the regional level for the massive burden of assuming total control over the health system in their corresponding territory.

However, this approach was far from cost-free, its main virtue being also its main flaw: the new regional health authorities had all kinds of incentives to focus locally, and often lost the wider perspective necessary in a national health system. In the early period, until 2001, the health budget was determined by the Ministry of Economy and Treasury under the 1980 Regional Funding Act, LOFCA (Organic Law 8/1980, 22 September, on the financing system of the ACs). The health budget was earmarked and the

Ministry of Health administered the share corresponding to the remaining INSALUD territory and took part in the bilateral negotiations with each of the regional health ministries; obviously, the amount of resources and the complexity of the discussions differed widely according to the stage of devolution. Those ACs which had already included all care networks in their regional health services found themselves accustomed to the “INSALUD-style” incremental annual budgeting but now free of the central planning component. There was no explicit expenditure ceiling; that is, they were allowed to incur a deficit and shift it to the following budget period. This deficit would be assumed by the central administration as a basis for the calculation of the next increment, that is, the difference between the actual expenditure and the prospective budget assigned. The central government was “obliged” to reimburse such “debt”. Cumulative over the years, this issue – called “historical debt” – constituted a firm claim by the ACs, and was the object of tough bargaining (and some gaming) during the actual devolution process. The usual argument was that the allocation mechanism determining the prospective grant was unable to account for the new situation properly, and that some economies of scale had disappeared with the regionalization of the health system, thus rendering the funding systematically insufficient.

As an illustration of the consequences of this initial trend to “disregard” the national interest, during the 1990s, the transfer of INSALUD health staff serving in the fast-tracked ACs to the new regime as regional service staff involved increases in the cost of manpower that were not always reasonable. This was fuelled by the fierce competition among regional administrations to provide staff – hitherto entitled to move around the country as civil servants in the national administration – with financial incentives to stay in a particular territory for the rest of their career (Repullo 2007).

The first effective attempt to introduce the principle of fiscal co-responsibility in the funding of regional health systems took place in 2001, just before the completion of the devolution process. The Council of Economic and Fiscal Policy (the inter-territorial coordination body for the central and regional ministries of economy and treasury) approved a new funding system endorsed by the national parliament (Law 21/2001). The resulting bill stuck to the two main principles of the previous regional funding law (LOFCA 1980): sufficiency (all ACs should have sufficient revenue to fund the services transferred from the central administration) and solidarity between territories, guided by redistribution policies. Nevertheless, the 2001 system of regional funding included several novelties; the first was that, for the first time, health funding was not earmarked but integrated as part of the general

grant transferred to the regional level. It meant that the final decision as to the health budget was to be made by the corresponding regional government after considering its expenditure across all sectors.<sup>4</sup> The only condition was that expenditure could not fall below that of the year of reference, 1999. The second new feature was the allocation formula, based on a per capita criterion, and weighted by population dispersion, extension and insularity of the territory. The third, and probably major innovation, was the recognition of some degree of autonomy for the regional governments, allowing for regulation of certain components of the national taxation system;<sup>5</sup> this involved, for instance, the possibility of modifying certain sections of personal income tax or fiscal exemptions within their region. The bulk of the funding consisted of the direct handing over to the regions of part of the centrally collected tax revenue generated in their territory: 40% of personal income tax, along with 35% of VAT and 40% of other indirect taxes such as those on alcohol, fuel, tobacco, and 100% of electricity tax, corporate tax, inheritance transfer tax and wealth and gift taxes. The system allows mechanisms for regional levering and inter-territorial solidarity; therefore the allowance stemming from the Sufficiency Fund is calculated according to the difference between the revenue generated at the regional level and the actual need for expenditure determined by the weighted population; thus, more affluent ACs, such as the Balearic Islands or Madrid, yield a negative balance, being net contributors to the state, whereas other communities, such as Extremadura and Galicia, are net receivers. This system is currently undergoing a reform to further progress regional financial autonomy. The bill was approved by the parliament in December 2009 and the new system will be applicable from 2011 budget (for further details see Chapter 3).

The completion of the devolution process in 2002 was followed by the passing of the SNS Cohesion and Quality Act, adopted in 2003. The aim of this bill was to balance the trade-off between devolution and national coordination. It established a new framework for coordination, respectful of the current power distribution, but aimed to build a national view on the equity and efficiency of the SNS, fostering mutual learning and cooperation. This law created the Agency for Quality of the SNS, the National Health Information Institute and

---

4 Most of the so called “historical debt” was to be settled even before the actual enforcement of the new funding system.

5 The Basque Country and Navarra enjoy a historical privilege of total autonomy for raising taxes within their territory, aside from the general mechanism; therefore they experienced a unique early high level of self-governing on all fronts.

the National Observatory of the SNS (described in detail below) and assigned a key role to the coordination bodies already designed in the LGS 1986, such as the CISNS.

The previous legislature (2004–2008) was characterized by an unusually confrontational political climate; health policy issues were no exception and the ability of the CISNS to carry out its new mandate was seriously compromised. The alignment of ACs into two different political blocks (roughly speaking, socialist and conservative parties) meant that the basic consensus mechanisms prescribed by the Cohesion and Quality Act could not work. There was yet a further step to be taken in consolidating the mechanisms for national coordination; it crystallized in the 2008 Pact for the Health System. Unanimously endorsed by the regional ministries (under governments from all political parties), framed within the CISNS, the Pact explicitly aimed to keep the SNS and basic health policy outside partisan political struggle. The document highlights certain issues as strategic for the SNS and thus matters for consensus policy-making and priorities for deliberation by CISNS. Those matters are:

- human resources, including planning around the relative shortage of certain profiles
- benefits basket
- accreditation of services and centres for national reference
- financial needs
- public health, including vaccination calendar
- maximum waiting times
- drugs abuse policy
- quality
- innovation.

The SNS benefits basket was first defined in 1995 by royal decree (Royal Decree 63/1995). Despite the tendencies in other countries at the time, the driver was never priority-setting or restricting benefits to a minimum basic common package, but rather to consolidate all existing benefits as basic, and therefore enforced for provision by ACs. The result was a fully comprehensive package excluding only dental care for adults,<sup>6</sup> and partly excluding social

---

6 Benefits excluded: dental cleaning for adults (except in some regions and under certain circumstances), dental prosthesis (except for civil servants' insurance, which partially refunds them), braces in adults (and some children), and root canal treatments and implants.

and community care. In addition, pharmaceutical benefits were extensively regulated during the 1990s (see *Benefits basket* under Section 3.2 *Population coverage and basis for entitlement* and Section 6.6 *Pharmaceutical care*). The SNS Cohesion and Quality Act prescribed that the basic benefits package should be common to the whole system, including primary and specialist health care, pharmaceuticals, orthopaedics, dietetic products, patient transport, public health and social services, leaving the explicit regulation of the general benefits package to the ACs. However, in 2006 the CISNS agreed to determine the common basic package and set up a procedure for periodical review and updating. Regions have already regulated, or are in the process of regulating, their respective benefits baskets; they are entitled to upgrade or complement this common package, but are obliged to guarantee at least those benefits for the sake of equity across the SNS. The inclusion of this issue in the 2008 Pact for the Health System was an important milestone for the cohesion of the SNS (see Box 2.1).

### Box 2.1

#### Milestones in health care reform, 1997–2009

---

**1997** A broad process of parliamentary discussion and public consultation on health care reform takes place, culminating in the approval of the Law on the Self-governing Status of Health Care Centres (which mirrored the previous 1996 Decree).

---

**1998** An updated negative list of pharmaceuticals is approved, and the first agreement with the main industry association in the field of pharmaceuticals (*Farmindustria*) on a set of cost-containment measures is signed.

A new agreement on the regional resource allocation system is reached.

---

**1999** The Annual Budgetary Act introduces subsidies for employer-purchased insurance plans and the previous tax break on private health care expenditure is ended.

Through the same Act, the way is opened for the transformation of all public hospitals into independent agencies under the legal status of public foundations.

A debate begins on illegal immigrants' rights of access to the public system. As a result, the rights of access of non-Spanish children to all public benefits, approved in 1990, are generally made effective. In addition, the 1999 Immigrants Law, approved by all parties in Parliament, also includes full rights of access for adult immigrants.

---

**2001** Approval of a new system of regional funding: for the first time health competences are funded through the general regional budget rather than through an earmarked transfer. Fiscal co-responsibility becomes part of the funding system, with the direct cession to the regions of part of the tax revenue generated in their territory.

---

**2002** The SNS completes the process of devolution of health competences to the regional departments of health. The central government's direct responsibilities are reduced to regulation of the general framework and coordination of the SNS under the mandate of the CISNS, and management of the centralized specific funds according to the new regional funding scheme.



**2003** Adoption of the SNS Cohesion and Quality Act passed in 2002. Reinforcement of the role of the CISNS and the creation, within the Ministry structure, of the Agency for Quality of the SNS and its two sub-agencies, the National Health Information Institute and the SNS Observatory.

**2006** The CISNS approves the new SNS common benefits package (updating and refining the contents of that outlined in 1995) and introduces an updating procedure.

**2008** The Pact for the Health System is unanimously endorsed by the CISNS, including ministries from all political parties. The Pact is a commitment to keep certain strategic matters regarding the SNS out of partisan political struggle.

**2009** There is a shift of responsibility for social policy within the central government to the Ministry of Health, which becomes the Ministry of Health and Social Policy (MSPS).

*Source:* Updated from Rico & Sabés 2000.

## 2.3 Organizational overview

Table 2.1 summarizes the current distribution of competences across the different administrations involved in the SNS. The following paragraphs will describe in depth the characteristics and functions of each as well as the main government bodies involved.

**Table 2.1**

Distribution of competences in the SNS

|                                                             |                                                                                                                     |              |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------|
| <b>State health administration<br/>(central government)</b> | Basic legislation and general coordination of the SNS                                                               | <b>CISNS</b> |
|                                                             | International health issues                                                                                         |              |
|                                                             | Pharmaceutical policy                                                                                               |              |
|                                                             | Management of INGESA <sup>a</sup>                                                                                   |              |
| <b>17 regional health administrations<br/>(ACs)</b>         | Regional health legislation                                                                                         |              |
|                                                             | Health insurance                                                                                                    |              |
|                                                             | Health services planning                                                                                            |              |
|                                                             | Health services management and provision                                                                            |              |
|                                                             | Public health                                                                                                       |              |
| <b>Local authorities<br/>(provinces and municipalities)</b> | Sanitation                                                                                                          |              |
|                                                             | Collaboration in health services provision and direct management of "residual" public health and community services |              |

*Note:* <sup>a</sup>The body in charge of health care for the two autonomous cities in the north of Africa, Ceuta and Melilla.

## CISNS

From its creation in April 1987 until 2003, the CISNS was composed of a total of 34 members (17 representatives of the central administration and 17 from the ACs). The Cohesion and Quality Act upgraded it to the highest coordination body, raising the status of constituent members to ministerial level and changing its composition to better reflect the current distribution of health care responsibilities. Thus, since 2003 the CISNS has been composed of 18 full members: the central Minister of Health and the 17 ministers responsible for health issues at regional level, and two permanent observers, representatives of the health administration in the two autonomous cities, Ceuta and Melilla. Additional members of the central government or the ACs can join CISNS's discussions on specific topics by appointment of the central or regional ministers. Such guest members can take part in the discussions but have no vote.

Decisions in the CISNS must be adopted by consensus and, as they affect matters that have been transferred to the regions (where no hierarchical relationship between the central and regional governments mediates), they can only take the form of recommendations. In some cases, the ACs and the central government can sign “covenants/agreements” that are binding on both parties.

According to the Cohesion and Quality Act, the mandate of CISNS implies the generation of information, its discussion and eventually the issuing of recommendations on essential matters related to the planning, assessment and coordination of the SNS. To this end, the CISNS can constitute technical commissions – some of them permanent, others ad hoc – and specific working groups. To illustrate this, Table 2.2 summarizes the activity of the CISNS in 2008, detailing the bodies and working groups active during that year. The CISNS relies on a support commission, the Delegate Commission of the CISNS, which comprises the deputy Minister of Health (central administration) and the 17 deputy regional ministers. This Commission is in charge of preparing CISNS meetings, assuming effective supervision of the experts' commissions and specific working groups, and executing the agreements reached by the CISNS.

The Consultation Committee of the CISNS articulates the participation of civil society. This Committee receives reports and provides advice on the contents and formulation of normative projects affecting the benefits package, health care financing and pharmaceutical expenditure; their opinion is also requested as part of the consultation process in preparing national health plans;

in addition, they provide advice on any bill project emanating from the CISNS affecting the basic rights and duties of patients and the basis of human resources policy. The composition of the Committee includes:

- six representatives of the general state administration
- six representatives of the regional administrations
- four representatives of the local administrations
- eight representatives of the business associations
- eight representatives of the trade unions.

**Table 2.2**

Reported activity of the CISNS in 2008

|                                                                                          | <b>Number of meetings 2008</b> |
|------------------------------------------------------------------------------------------|--------------------------------|
| <b>Bodies, commissions and working groups</b>                                            |                                |
| <b>Plenary CISNS</b>                                                                     | 3                              |
| <b>Delegated Commission of the CISNS</b>                                                 | 3                              |
| Sub-commission on Information Systems                                                    | 3                              |
| Minimum Hospital Data Set (CMBD)                                                         | 1                              |
| <b>Transplants and Regenerative Medicine Commission</b>                                  | 3                              |
| Sub-commission on Haematopoietic Stem-Cell Transplants                                   | 1                              |
| <b>Commission on Benefits Basket, Coverage and Financing</b>                             | 1                              |
| Advisory Committee on Prosthetics Coverage                                               | 2                              |
| Committee for the Designation of Centres, Services and Units of Reference for the SNS    | 2                              |
| <b>Permanent Commission on Pharmaceuticals</b>                                           | 4                              |
| <b>Public Health Commission</b>                                                          | 4                              |
| Environmental Health Conference                                                          | 5                              |
| Working Group on Epidemiological Surveillance                                            | 2                              |
| Working Group on Epidemiological Monitoring of Transmissible Spongiform Encephalopathies | 1                              |
| Working Group on Health Promotion                                                        | 1                              |
| Vaccination Programme and Registration Conference                                        | 2                              |
| Flu Surveillance Group                                                                   | 1                              |
| <b>Follow-up Commission for the Health Cohesion Funds</b>                                | 2                              |
| <b>Commission against Gender Violence</b>                                                | –                              |
| <b>Commission for the Coordination of Inspection in the SNS</b>                          | 4                              |
| <b>Commission for EU Council Issues</b>                                                  | 4                              |
| <b>Consultation Committee of the SNS</b>                                                 | 1                              |

Source: CISNS 2009.

## General state administration (central government)

Several bodies and ministries within the central government play a relevant role in the SNS. The central government assumes responsibility for certain strategic areas, including:

- general coordination and basic health legislation
- general coordination and basic social care legislation
- financing of the system
- definition of the minimum benefits package guaranteed by the SNS and SAAD
- international health
- pharmaceutical policy
- regulation of undergraduate education and postgraduate medical training
- research and innovation.

### The Ministry of Health and Social Policy (MSPS)

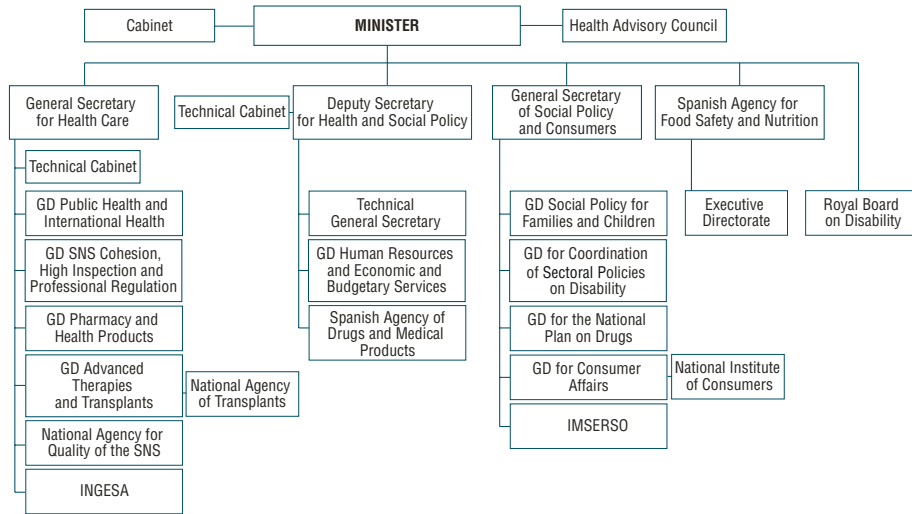
The MSPS guarantees the effective right of all inhabitants to health protection. This is the key authority responsible for coordinating the SNS, and for drafting health policy and the necessary basic enabling legislation. It is also the country's highest authority in the sphere of consumer affairs. As mentioned above, the Ministry has recently become the national authority in the field of social services and dependency care (Royal Decree 1041/2009); its responsibilities fall mainly in the area of framing policy on social cohesion, social inclusion, family and child protection (competences for the actual management and provision of these services are transferred to the regional, and sometimes local, level). It also has responsibility for coordinating the brand new SAAD.

The bodies referred to below are under the direct authority of the MSPS and articulate the functions listed in Fig. 2.3.

Deputy Secretary for Health and Social Policy (the equivalent to the deputy minister), in addition to the coordination of the Delegate Commission of the CISNS described above, directly supervises the following bodies.

- The Spanish Agency of Drugs and Medical Products. This Agency is in charge of ensuring that pharmaceutical products registered in Spain meet the criteria for quality, safety and clinical efficacy. Since 1999, the Agency has been in charge of evaluating the clinical effectiveness of new brands and authorizing their commercial registration. This task is complementary to,

**Fig. 2.3**  
Structure of the MSPS



Source: MSPS 2010e.

but separate from, that implemented by the General Directorate of Pharmacy and Health Products, supervised by the General Secretary for Health Care (see below), which has authority regarding public funding of licensed pharmaceuticals.

- General Directorate of Human Resources and Economic and Budgetary Services. This body has directive functions in the matter of the Ministry’s staff management. In addition, it is in charge of financial and economic management and information technologies.
- The National Plan on AIDS. This is the body in charge of coordinating research, information, prevention and treatment of AIDS.

In addition, there are two General Secretariats, one for health and the other for social policy and consumers.

(1) The General Secretary for Health Care has competences in cooperation and international health for the SNS and directly supervises the activity of the following bodies.

The *General Directorate of Pharmacy and Health Products* is in charge of determining which pharmaceuticals should be co-financed by the public budget. The mechanism is based on *negative lists*, excluding pharmaceuticals of low therapeutic value or which have not proved to have an adequate incremental cost–effectiveness ratio. The General Directorate also has a relevant role in price-setting policy. The cost-containment strategy in this respect consists in the setting of “reference prices”. This tool calculates a recommended price for generic drugs based on all the formulas containing the same therapeutic agent; the expected consequence, which, according to available data, has been achieved, is an automatic decrease in all prices. This system has been in place since 2003 (more details are provided in Section 6.6 *Pharmaceutical care*).

The *General Directorate of Public Health and International Health* is responsible for the coordination and national regulation of epidemiological information, health promotion and disease prevention, occupational health and environmental health. This directorate is also responsible for elaborating the Spanish position regarding public health issues at the EU and other international forums in collaboration with other ministerial departments.

The *National Agency of Transplants* is in charge of coordinating the extraction and transportation of organs and the selection of recipient patients at national level.

The *National Agency for Quality of the SNS*, which includes under its umbrella the National Health Information Institute, the Quality and Planning Office of the SNS and the SNS Observatory. This agency concentrates the functions of assessment and monitoring at the national level and also manages the discretionary funding linked to the development of the National Quality Plan. The Observatory produces annual reports on the SNS and develops or commissions ad hoc analysis to respond to the needs of the CISNS. The National Health Information Institute is the repository of administrative databases and basic health-related statistics for the ACs, managing the project REBECA, under the auspices of the Sub-commission on Information Systems of the CISNS. This ambitious project, started in 2008, gathers a large repertoire of data produced at the regional level, including determinants of health (lifestyle, living and working conditions, environmental health, food safety), population (demographics), health status (general indicators of health status, morbidity and mortality), health care system (quality and health care outcomes; catalogue of services and accessibility; promotion, protection and prevention; health care resources; and health care utilization), health care expenditure, medicines and medical devices, and consumers’ rights. In addition, the Institute compiles the national minimum data set for hospital discharges, the national catalogue of hospitals, the national catalogue of primary care centres

and the national statistics for inpatient centres; it also manages the National Health Survey, the Health Care Barometer and the National Mortality Register. All these sources of information have allowed for the building of the Set of Key Indicators for the SNS (INCLASNS); the chosen indicators cover demographics, health status and its determinants, health care resources supply, activity, quality, expenditure and citizens' satisfaction. These indicators are regularly reported and constitute the bones of the annual reports by the SNS Observatory and other ad hoc publications by the Ministry. Unfortunately, although considerable progress has been made in the last couple of years, formats offering complete comparative information for ACs are still limited. The implementation of the national eCR would certainly provide a solid base for development in the right direction (see a detailed explanation in *Regulating the quality of care* in Section 4.1 *Regulation, Information systems* in Section 4.2 *Planning and health information management and Information technology* in Section 5.1 *Physical Resources*).

The mission of the *Quality and Planning Office of the SNS* is to develop, maintain and disseminate quality norms and standards of practice, indicators, clinical guidelines, best practices registries and adverse events registries. This body is in charge of elaborating and implementing the national quality strategies emanating from the National Quality Plan; these strategies often entail earmarked grants to help regional administrations in implementing them. Accreditation of SNS centres of reference (and development of the corresponding methodology to do so) also falls within the portfolio of this office.

The *Observatory of Women's Health* is also integrated within the National Agency for Quality of the SNS, assuming functions of monitoring and knowledge dissemination to contribute to the eradication of gender-driven inequalities in health. It actively promotes the integration of a gender perspective in the analysis of the SNS under the umbrella of the National Quality Plan.

The *National Institute of Health Management (INGESA)* is the body that manages the health care services in the two autonomous cities located in the African continent (covering 0.3% of the Spanish population).

The General Directorate of SNS Cohesion, High Inspection and Professionals Regulation has been boosted in the last two years with the implementation of the 3110 (General Directorate of SNS Cohesion, High Inspection and Professionals Regulation 2009) which reinforces the follow-up of the adherence to CISNS's agreements at the regional and central level. This update of the high inspection function translates into a systematic assessment of the level of implementation of accords, the use of funds and the coherence between new regional policy developments and the agreed national framework.

(2) The General Secretary of Social Policy and Consumers is in charge of:

- The National Institute of the Elderly and Social Services (IMSERSO): this social insurance management structure is in charge of complementary social services included in the social security benefits for the elderly and of social services for people in a situation of dependency.
- The General Directorate for the National Plan on Drug Addiction: this body is responsible for the management, implementation, coordination and supervision of those services related to the updating and implementation of the National Plan on Drugs.
- The National Institute of Consumers: this body is in charge of inspection, arbitration, research, training and other tasks related to the field of consumer affairs. It includes coordination with the corresponding regional administrations.
- The Spanish Agency for Food Safety and Nutrition: this agency is an autonomous institution under the direct supervision of the Minister. Its mission is to coordinate regulation and inspection to ensure the highest possible degree of safety in the food industry. The agency portfolio in nutrition policy is large and includes the design and implementation of policies focused on obesity prevention and reduction of diet-related noncommunicable diseases. Notably, the Agency launched in 2005 the Strategy for Nutrition, Physical Activity and Obesity Prevention (NAOS); this strategy has been acknowledged by the EU as innovative in its ability to integrate many different sectors and effectively broaden the scope of intervention (family and community, schools, restaurant and hotel business, food producers, food distributors and retailers, etc.). Further details on the NAOS strategy are discussed in Section 6.1 *Public health* (MSPS 2009h).

### **The Ministry of Science and Innovation**

Since July 2008, the Ministry of Science and Innovation has held competences in research and innovation in health (previously under the jurisdiction of the Ministry of Health). In fact, this Ministry has pulled together all major research capacity across different departments; the rationale for this is to achieve better synergies and more effective intersectoral cooperation.

There is a joint commission that incorporates the MSPS in decision-making regarding the main national body in health research, the Institute of Health Carlos III. This organization is in charge of promoting and coordinating biomedical research; training of personnel in public health and health services management; public health services; health information; technology assessment; scientific and technical accreditation and technical advisory functions. The Institute channels



these functions through several organizations and research institutes, including the National School of Public Health, the Health Research Fund (main public funding for health and health services research) and a series of national reference centres covering the range of health research and service areas (epidemiology, clinical research and preventive medicine, nutrition, environmental health, health information, microbiology and fundamental biology). Among them, the National Agency for Health Technologies Assessment deserves special mention, appraising new medical technologies for efficiency and effectiveness; it pilots the coordinated introduction of emergent technologies into the basic benefits package; surgical treatment for epilepsy and non-pharmaceutical treatment for Parkinson's disease can be cited as examples.

It should be underlined that health technology assessment (HTA) functions are also undertaken by the ACs, and some of them have created their own agencies (notably Andalucía, the Basque Country, Canary Islands, Catalonia, Galicia and Madrid), in some cases even pre-dating the creation of the national agency. The regional agencies were intended to provide a quick response to local questions regarding introduction of new technologies and appropriate use of existing ones. For many years there has been a debate on the trade-off between local availability of this resource and the potential loss of economies of scale entailed by fragmentation of appraisal capacity, the potential duplication of efforts and the threat to the rationale underlying the definition of the basic benefits package (further details are provided in Section 4.2 *Planning and health information management*).

The health system draws on the input of a number of other ministries, namely:

- The Ministry of Education, which is responsible for the regulation of health professionals' undergraduate training and, in association with the MSPS, of postgraduate training and human resources planning. Several joint commissions and a number of expert bodies support this activity.
- The Ministry of Economy and Treasury, which is in charge of drafting the bill for the health and social policy budget for the central administration, the general funds transfer to the ACs, and the regulation of private insurance. As illustrated by the discussion in Section 2.2 *Historical background: devolution's path*, the Council of Economic and Fiscal Policy plays an important role in negotiating with the ACs.
- The Ministry of Environment, which deals with environmental health issues in coordination with the MSPS.
- The Ministries of Defence, Justice and Territorial Policy, each of which sponsors an insurance scheme offering protection to their own civil

servants (see also Section 2.1 *Overview of the health system*). These funds are the mutual companies for the ISFAS, MUGEJU, and MUFACE. In addition, the Ministry of Defence is still in charge of the network of military hospitals, health care centres and pharmacies, although most of these providers have been progressively contracted out to the regional health services.

- The Ministry of Internal Affairs, which, through its General Department of Prisons, is responsible for health in prisons in most ACs.

## The role of regional governments

The completion of devolution in 2001 meant the complete transfer of health care responsibility from the central administration to the regional level (see Section 2.2 *Historical background: devolution's path*). Since then, each region has held primary jurisdiction for planning and organizing its own health system, only subject to the national framework prescribed by the Health Care General Act of 1986 and the Cohesion and Quality Act 2003. Each regional government is responsible for, and regulates, the insurer, purchaser and provider functions for their population. The regional funding scheme enables them to decide on the health budget for their territory, respecting the floor limits agreed at national level; they have also increased their capacity for direct revenue raising through taxation (see Section 2.2 *Historical background: devolution's path*).

The typical structure of regional health systems consists of a regional ministry or department of health, with responsibility for health policy and health care regulation and planning, and a regional health service performing as provider. There are a few exceptions in which the purchase and provision functions have been split, including a third-party network of providers; in these cases, the regional health service behaves as purchaser contracting out with a network of non-profit-making providers integrated within a network of public providers (for further details see Chapter 4).

The regional Ministry of Health controls the territorial organization of health services within their jurisdiction: the design of the health care areas and basic health zones, and the degree of decentralization to the managerial structures in charge of each. The most frequent model entails two separate executive organizations, one for primary and one for specialist care (ambulatory and hospitals), at the health area level. Some of the regional health services, though, have chosen to create a single area management structure integrating primary care and specialist care. Public health responsibilities tend to be centralized in the regional department of health,

though functionally following the basic health areas structure (see Chapter 4 for a detailed description of governance models).

As primary insurer of their population, the regional Ministry of Health defines the corresponding benefits package. The basic benefits package is nationally agreed within the CISNS (Royal Decree 1030/2006, 15 September, establishes the current common benefits package and sets the updating procedures). However, the regional authorities are entitled to extend benefits according to local preferences and criteria of need and priority (more detailed information is provided in Section 3.2 *Population coverage and basis for entitlement* and Chapter 6).

### **The role of local governments**

The Spanish Constitution attributes most local health responsibilities to the ACs, with the significant exception of basic sanitation policies and some other environmental health activities. In addition, the 1986 Health Care General Act prescribes that local governments should continue owning and financing the health care networks inherited from the past, although both management and personnel have to be transferred to the ACs. This peculiar power configuration created considerable problems during the 1980s and 1990s, with some local governments either blocking the transfers or refusing to finance the regionally operated health care services. In an attempt to resolve this issue, legislation concedes some rights to local governments to participate in the governance of the system, with mostly advisory functions, through their presence in Area Health Councils. These Area Health Councils are described in the Health Care General Act as community councils for management consultation and monitoring. However, after this conflictual transition period, the situation has settled, taking many different shapes according to ad hoc collaboration formulas agreed between the local governments and their corresponding regional authority. The bottom line, in all cases, is that local governments continue to play a role in ensuring a healthy environment, and sometimes also in collaborating in the management of health services although, overall, their role in the system is limited. They are still key players in the implementation of health promotion and drug addiction programmes and community and social care.

### **The role of insurance companies**

The non-profit-making private sector plays a key role regarding care for work-related injuries and diseases. There are a number of mutuality schemes covering these contingencies, which are funded by the National Social Insurance Treasury, largely through employers' contributions. Until 1996, occupational

health services were managed either through the social security mutual funds themselves, or directly through the SNS; since 1996 these services have been progressively contracted out to private insurance companies, which were simultaneously given a mandate regarding sick leave. In the current scheme, the SNS and social insurance mutual funds deal with temporary disability for ordinary causes, but when the disability is due to a person's professional activity or a work-related accident, these private firms take over the provision of required health care and rehabilitation, as well as the management of the economic transfer due to the worker, covering the period of disability.

Profit-making insurance companies play a relatively minor, though increasingly relevant, role within the Spanish health system. Their business relies largely on the relation with the three already mentioned publicly funded mutual funds which cater exclusively to civil servants in government departments. As explained in Section 2.2 *Historical background: devolution's path*, civil servants can choose to opt out from the public system, turning to fully private provision. The mutual funds contract service provision to private companies for over 80% of their beneficiaries that choose this option and their dependants (they amount to 4.8% of the general population). These firms integrate insurance and provision either through shared ownership or long-term contracts. It is worth noting that there is some evidence pointing to a tendency among this group of users to resort to public hospital providers for high-technology interventions, although state regulation explicitly rules out this possibility.

Private voluntary schemes in turn cover some 13% of the population, although there is some regional variation with the Balearic Islands, Catalonia and Madrid showing more than 20% of the population buying private insurance (Table 2.3). Private voluntary insurance does not imply opting out of the public system but rather purchasing complementary coverage; this alternative coverage is independent from the public system. Individuals may purchase it to gain access to services for which there are waiting times in the public system, such as specialist care, or to access services such as adult dental care that are not included in the benefits package. In the mid-1990s, several reforms were targeted at expanding their role, including a series of tax measures, such as a 15% tax break applied to all private health care payments, followed in 1999 by deductions for employer-purchased private insurance (the generic tax break previously applied was, however, suppressed at this point).

Considering these categories of private insurance (purely voluntary and employer-purchased insurance) jointly with the (publicly funded) civil servants' mutual funds mentioned above, the percentage of the Spanish population covered by private insurance goes up to around 15%.

**Table 2.3**

Types of health coverage by AC (%)

|                    | Public<br>exclusively | Private<br>exclusively | Both        | Other<br>situations |
|--------------------|-----------------------|------------------------|-------------|---------------------|
| <b>Total</b>       | <b>85.1</b>           | <b>1.4</b>             | <b>13.2</b> | <b>0.3</b>          |
| Andalucía          | 90.8                  | 2.3                    | 6.6         | 0.4                 |
| Aragón             | 86.9                  | 0.9                    | 11.8        | 0.4                 |
| Asturias           | 86.1                  | 0.3                    | 13.5        | 0.1                 |
| Balearic Islands   | 74.1                  | 0.7                    | 25.0        | 0.2                 |
| Basque Country     | 79.5                  | 0.6                    | 19.9        | 0.0                 |
| Canary Islands     | 92.8                  | 2.0                    | 4.9         | 0.3                 |
| Cantabria          | 92.7                  | 1.7                    | 5.4         | 0.3                 |
| Castilla-León      | 88.8                  | 0.7                    | 10.4        | 0.1                 |
| Castilla-La Mancha | 92.4                  | 0.7                    | 6.5         | 0.5                 |
| Catalonia          | 74.9                  | 1.1                    | 23.9        | 0.2                 |
| Extremadura        | 97.3                  | 0.4                    | 2.3         | 0.0                 |
| Galicia            | 91.1                  | 0.3                    | 8.5         | 0.0                 |
| Madrid             | 75.3                  | 1.9                    | 22.7        | 0.1                 |
| Murcia             | 91.6                  | 2.4                    | 5.4         | 0.6                 |
| Navarra            | 94.4                  | 0.8                    | 4.2         | 0.5                 |
| La Rioja           | 92.0                  | 0.3                    | 7.8         | 0.0                 |
| Valencia           | 88.5                  | 1.8                    | 8.8         | 1.0                 |
| Ceuta and Melilla  | 96.0                  | 1.8                    | 2.3         | 0.0                 |

Source: INE 2006.

It is worth noting the results of the Health Care Barometer 2008 (an annual population survey on perceptions of the SNS commissioned by the Ministry from the independent Centre for Sociological Research [CIS], MSPS 2008b); this analysis shed some light on the preferences regarding use of different types of services and the function of supplementary private coverage. When it comes to primary care, 62.9% of the population would opt for public services as opposed to 31% who would go private. For outpatient specialized services, there is a 47.9% preference for public provision against 43.6% for private. Inpatient services, on the other hand, show people's clear preference for public hospitals (59%) over private (33.4%), and for emergencies the pattern is very similar (61% public vs 31% private). Also, it is revealing that 50.2% of those interviewed considered that the situation regarding waiting lists for outpatient and inpatient specialized care has not changed, and some 34% think that health authorities are taking no action to improve it.

## Other providers

The public system has traditionally contracted out some 15–20% of specialized care provision to private (mostly non-profit-making) hospital providers. This contracting out typically buys some high-resolution diagnostic services or outpatient surgical procedures as part of the management of waiting lists (see more details in Section 3.5 *Purchasing and purchaser–provider relations* and Chapter 7). There are, however, a few exceptions in which regional health services establish contracts assigning the full provision of services for the population in a certain health area to other providers.

The case of Catalonia is unique in this respect, with two-thirds of public hospital services provided by private non-profit-making hospitals integrated in the network of public providers via long-term agreements. The justification underlying this particular situation is the historical building of Catalonia's health care infrastructure, which relied heavily on a strong tradition of civil society mutualism linked to industrial workers. The creation of the Catalan Health Service in 1981 and the SNS in 1986 incorporated this existing capacity as part of the public provision.

More recently, since the mid-1990s, other ACs have implemented different formulas allowing a variety of providers; however, in all cases these are marginal to the predominant public provision. These other providers are either hospitals constituted as public enterprises, foundations or private non-profit-making hospitals which are contracted to provide services for a certain territorial division. In other cases, concessions with the same scope have been made to private firms which sometimes own and manage, sometimes just build and manage services, introducing public–private joint venture schemes. Andalucía, Galicia, Murcia, Valencia and Madrid offer examples of these arrangements (for a more detailed discussion, see Section 3.5 *Purchasing and purchaser–provider relations* and Section 4.1 *Regulation*).

## The role of user groups

The Health Care General Act introduced participatory committees at all levels of the managerial structure of the health care sector. They are mostly made up of representatives of local government and professional groups, with only a small percentage of membership reserved for local civic associations. This reflects an attempt to overcome the problems of coordination introduced by the pattern of power-sharing among government tiers, and is partly due to

the limited development of users' associations and voluntary organizations in Spain compared to other countries. There are participatory bodies at the following levels.

- Health councils exist at the district level (“health zone”) to advise on the management of primary and community care.
- Hospital participation committees allow representatives from the municipalities and local consumers' associations to provide input into hospital management. In 1990, these committees were transferred to the managerial structure of the “health areas” in order to improve coordination of primary care and specialized services at the territorial level.
- The Consultative Committee at the central level (see the section on CISNS on p. 50), informs the work of the CISNS and allows for representation from trade unions, employers, consumers and experts.

Historically, lay participation has not always been effective in part due to lack of activity of Spanish consumers' associations as political representatives and the lack of receptiveness of the technical bodies, dominated by professionals, which effectively discouraged lay people from taking an active role. However, another modality of participation is gaining relevance. The last few years have witnessed remarkable progress in this respect that should be acknowledged. Patients' lobbying groups have flourished as the spaces for incorporating patients' views in policy-making have increased. Several associations of patients with certain pathologies (cancer, mental disorders, chronic diseases) have gained some structured capacity for influence within the advisory bodies of the SNS. Most of them are organized into a lobby group, the Spanish Patients' Forum, which is increasingly becoming the national reference for political interlocution. This development is clearly inspired by, as well as embedded in, the European Patients' Forum for the European Commission. This emergent patient representation has been systematically included as part of the methodology for the design of the national health strategies under the umbrella of the National Quality Plan of the SNS (see Section 4.1 *Regulation* for further details). In addition, the topic of public participation is also gaining importance in regional politics and some regions are launching initiatives to encourage community participation.

## Professional representation

The weakness of civic networks in Spain, largely as a result of their ban during the dictatorship, also affects professional associations. The only institutions during the dictatorship were the provincial medical colleges, integrated into a vertical corporative structure, the General Council of Medical Colleges. This council was represented within health management structures by the OMC, a political body created to protect its vested interests and represent the profession within the state. In the first years of the democratic period, multiple professional associations with a political or ideological focus flourished, but they achieved only low membership levels among the medical profession (according to survey data, barely 20% of doctors were affiliated to professional associations). The main trade unions in the sector are the medical union CESM and the nursing association SATSE, as well as the socialist (UGT) and communist (CCOO) trade unions.

The professional associations with a greater political impact have been the above-mentioned conservative OMC, the left-wing Federation of Associations for the Defence of the Public Health Care System (FADSP), the Spanish Society of Family and Community Medicine (SEMFYC), which played a leading role in the design, formulation and implementation of primary health care reforms, and, more recently, the Spanish Society of Public Health and Health Management (*Sociedad Española de Salud Pública y Administración Sanitaria*, SESPAS), which has been increasingly influential in political, managerial and professional fields. In addition, the unions mentioned above, the UGT and CCOO, have often supported the FADSP and the SEMFYC in their attempts to promote the development and improvement of the public health care system. The professional trade unions CESM and SATSE have also been highly influential in the field of wage agreements.

Finally, there is one professional society per medical specialty that plays a very important role in the self-regulation of the profession, recruitment and professional training through the National Council of Medical Specialties, which exerts some regulatory powers and holds an advisory role. In the field of primary care, the SEMFYC, which represents GPs with specialist training in family medicine, coexists with two other associations (SEMG and SEMERGEN) representing other sectors of the profession.

The existing nationwide association of private providers (*Federación Española de Clínicas Privadas*) is rather weak both in organizational and political terms, except in Catalonia. Two powerful providers' associations compete to represent the private contracted-out sector there, the Union of



Catalan Hospitals (UCH) and the Catalan Hospital Consortium (CHC). Their degree of influence, both as vested interest groups and as independent consultants, has been considerable, especially during the 1990s.

## The policy formulation process

Most of the features of the health policy formulation process in Spain have already been outlined in the previous sections. The bottom line might be well described as the characteristic multilateral process in any federal state; the peculiarities in terms of the institutions available for cohesion and coordination have already been extensively described and the main stakeholders and their respective roles and competences explained.

As is implicit in the description provided above, the assessment of the performance of the SNS is ultimately the responsibility of the CISNS; however, performance assessment activity is spread throughout the many different commissions and bodies listed in the paragraphs above, which are explicitly mandated to evaluate different aspects of the system or specific policies. The responsibility for integrating all the information produced and systematically assessing the SNS against a conceptual performance framework is not explicitly ascribed to any body. Probably the natural candidate among the existing bodies would be the SNS Observatory; its annual reports on the SNS (sourced from the SNS information system and qualitative information provided by the ACs) are intended as complete pictures of the SNS. They tend to be more descriptive than evaluative, though. On the other hand, existing analyses of the system's performance by independent institutions or research groups are usually focused on some specific dimension rather than global assessments. Chapter 8 compiles the evaluative information available and points out evidence gaps.

## 2.4 Patient empowerment

### Patient rights

The 1986 Health Care General Act establishes the reference framework of rights for the users of the SNS:

- the right to be informed of their rights by health authorities;
- respect for human dignity and privacy, proscribing discrimination of any sort;

- information about health services available and the requirements to access them;
- confidentiality;
- appointment of a particular doctor who becomes the *responsible professional* and speaks on behalf of the health team;
- warning about teaching or research aspects affecting the process of care, and the obligation to obtain the patient's authorization for any of them;
- the provision of sustained, complete and comprehensible information, both verbal and written, for the patient and their family regarding diagnosis, prognosis and treatment;
- free choice among the options submitted by the responsible health professional;
- the obligation for health care staff to have the patient's written informed consent to undergo health interventions with some exceptions;
- the right to refuse treatment, resulting in voluntary discharge, except in case of public health risk;
- existence of complaints and suggestions procedures;
- the right to receive a discharge report, in writing, documenting the care process derived from their stay in hospital;
- the right to obtain the drugs and health products necessary to promote, preserve or re-establish their health status; and
- the right to choose among health professionals available.

The main rights enumerated here are also applicable to private health services, while respecting the particular regime of each type of health service institution.

The 41/2002 Patient Autonomy, Rights and Duties on Information and Clinical Documentation Basic Act elaborated in more concrete aspects those rights related to information and clinical documentation within the SNS. This is a matter not only of personal clinical information but also of information regarding the administrative paths (services and health care units available and requirements to gain access to them). The new law allows users to put into practice other rights, such as freedom of choice regarding a doctor or centre, receiving information on waiting lists, asking for second opinions, and so on, detailed in the following paragraphs. It also urges ACs to establish an adequate structure to enhance the exercise of these rights. Specifically, it regulates the

rights of access to and custody of the clinical record, entitling patients to obtain copies of the information contained in them, and obliging health centres and individual professionals to preserve it in a transferable format (for the sake of the patient), while diligently preventing unauthorized exposure to third parties except in very specific situations.

Within this framework, all ACs have developed their own Patient's Rights and Duties Charts, in some cases as part of the regional health act. The figure of a patients' ombudsman exists in most regional systems, and their reports have a certain influence in safeguarding patients' rights due to their impact on the media.

### **Patient choice**

In the development of their Rights and Duties Charts, some ACs have gone beyond rights established by the central administration. Matters such as the right to seek a second medical opinion or maximum waiting times are regulated in most ACs (MSPS 2010h). Regarding patient choice, some regional services have developed these rights differentially for primary health care and specialized services using ad hoc norms. Others have developed norms only for primary health care, while some others simply cite this right in their health legislation. Needless to say, the development of norms and regulations within ACs has clearly been influenced by the date when health care competences were assumed in each region. In general, the possibility to choose a specialist and hospital is relatively less developed compared to this option within primary health care, where it is more common, though in most cases the range of choice is limited to the GPs available in the users' territorial unit or health zone or area. In any case, access to specialist care requires referral from the GP, who acts as a gatekeeper; for users under 14 years old, this function is carried out by the primary care paediatrician, integrated in the multidisciplinary primary care team (PCT).

The health administration in Madrid has taken a further step in 2009, creating what they call the "single area" of Madrid. This implies the abolition of health areas, allowing patients to choose any doctor or health care centre, either in primary or specialist health care, in the public utilization network within the region. No information has been provided so far regarding the intended regulatory framework and functioning of this scheme. There is no evidence available as to whether the current level of individual choice has an impact on equity and efficiency of the SNS.

## Information for patients and medical records

The original lack of stipulations regarding medical records in the Health Care General Act gave way to a proliferation of regional regulations, thus leading to a diversity of information systems and clinical documentation designs heading towards the introduction of electronic clinical records (eCRs). In an attempt to find a minimum common denominator and provide guidance to those ACs which had just received health competences, the 41/2002 Law established the basic concept and minimum content of eCRs to which ACs should adhere; in addition, it set up coordination at a national level, with the mandate for the National Health Information Institute to develop in collaboration with the ACs an interoperability system compatible throughout the country, laying the basis for a unique eCR per patient. The Information Systems Commission of the CISNS fosters and monitors progress in the implementation of the interoperability systems paving the way to this unique eCR; the pilot phase is quite advanced and full implementation is expected by the end of 2010 (extensive information on this issue is provided in *Information systems* in Section 4.2 *Planning and health information management* and in Section 5.1 *Physical resources*).

Regarding access to information for people with disabilities, Spain, like the rest of the EU member states, fulfils the new EU directive 2004/27/CE, which meant that Braille information should be included on medicine boxes by 30 October 2005. In fact, the Spanish Act on Pharmaceuticals 25/1990 had already addressed this issue.

Measures targeted to improve non-Spanish-speakers' access to information have been limited, consisting mainly in the availability of Rights and Duties Charts in other languages, such as Arabic, Chinese, English and French. The presence of cultural mediators and translators in the SNS is rare and is often linked to social services.

## Complaints procedures (mediation, claims) and patient safety and compensation

Complaints and suggestions are integrated in Article 10.12 of the Health Care General Act (which in fact reflected the content of the documents concerning patients' rights and obligations already in place at that stage). The above-mentioned Article recognizes the right of any citizen to issue a complaint but also guarantees the protection of such rights. This is in line with the general social security legislation and the norms determining the internal running of the primary health care centres and hospitals. Societal changes as a consequence of

economic, legal and technological evolution in recent years have been reflected in the generalization of legal procedures ensuring those rights. In fact, these are conceived of as a legal imperative, but also as an opportunity to improve service delivery by way of interconnecting complaints procedures and suggestions for quality improvement in health centres, services and units.

In practice, the way to guarantee that citizens can exercise their rights is to ensure that all ACs' health services centres have guidelines stating users' rights and obligations, the services available, their characteristics and also the procedure for submitting suggestions or complaints.

Most regions have published these rights and obligations by way of legal or regulatory norms. Most of them offer this information on the Internet.

In case of litigation, the health centres provide insurance coverage to professionals. In general the different health services have created specific units at different organizational levels that act as the patients' protector, such as Patient Support Services (*Servicios de Atención al Paciente*, SAP) or User Complaint Units (*Unidades de Atención al Usuario*, UAU) and, as mentioned above, the figure of patients' ombudsman is present in most of the ACs.

According to the National Health System Survey of 2000 (MSPS 2008a), the main causes of formal complaints were: attendance times (29%), disagreement with care procedures (19.4%), wrong clinical treatment (17.9%) and deficient personal treatment (11.4%).

### **Patients' satisfaction and public perception of health care systems**

The issue of patients' satisfaction receives sustained attention in Spain. A substantial amount of information is available regarding patients' assessment of different aspects of health system. Table 2.4 presents the results of the latest health system survey commissioned by the MSPS and compiled by the CIS, the Health Care Barometer, first issued in 1995. In 2008, the results reflect how, on a scale of 1 to 10, overall satisfaction with the public health system stands at 6.3 compared with the 5.9 obtained in 2002. The majority of respondents (68.1%) felt that the system "functioned quite well or well"; however, 48.9% of them considered that "some changes are needed". Compared with the figures obtained in 2004, the number of those assessing the SNS as functioning well has increased moderately. The number of those who believe that the system is in need of fundamental changes has decreased slightly (by 0.9%). In the case of those polled who believe that there should be a total overhaul of the system, the trend is quite stable, around 5%.

**Table 2.4**

## Patients' or citizens' satisfaction with health care and/or the health system

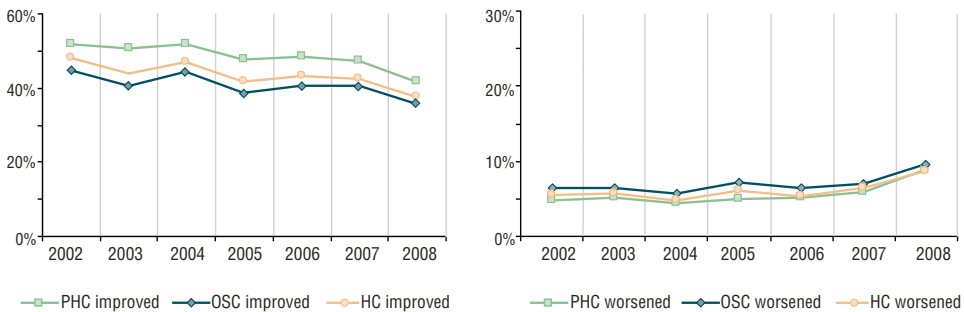
|                                                                                   | 2008   | Change   |          | 2004   |
|-----------------------------------------------------------------------------------|--------|----------|----------|--------|
|                                                                                   |        | Absolute | Relative |        |
| In general, health system functions well enough (well or quite well)              | 19.20% | -0.60%   | -3.03%   | 19.80% |
| The health system functions well, but some changes are needed                     | 48.90% | 1.80%    | 3.82%    | 47.10% |
| The health system needs profound changes, though some aspects of it function well | 26.20% | -0.90%   | -3.32%   | 27.10% |
| Our health system should be redesigned completely                                 | 4.90%  | -0.10%   | -2.00%   | 5.00%  |
| Does not know/no answer                                                           | 0.80%  | -0.10%   | -11.11%  | 0.90%  |

Source: MSPS 2009a.

After years of relatively stable appraisal of the situation, comparing the different degrees of satisfaction with the different components of health care, a decrease in the aggregated satisfaction indexes since 2000 can be found. From 2002 to 2008, patients' perception has become more negative (Fig. 2.4): in 2002, the majority of the population thought that primary health care had improved over the preceding five years and only less than 5% felt that it had worsened. In contrast, by 2008 the positive assessment had dropped by 10 points while the negative almost doubled. The same trend is replicated in outpatient and hospital specialized care.

**Fig. 2.4**

## Patients' assessment of the evolution of different components of health care, 2002–2008



Source: MSPS 2009a.

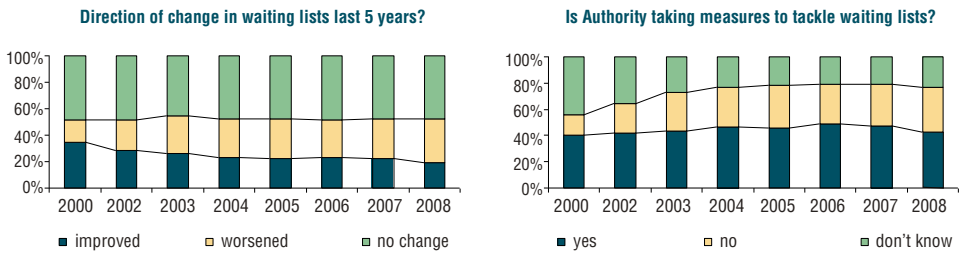
Notes: OSC: Outpatient specialized care; HC: Hospital care.

Waiting lists are indeed the main cause of patient dissatisfaction with the SNS (more than a third of complaints by health system users are due to this issue). Fig. 2.5 depicts the evolution of public perception in this regard. For the entire period of analysis, about half of the population seems to feel that

the situation has stagnated, and the proportion of people who think that the situation is improving has been declining over the years; the 30% who shared this view in 2002 had become 20% by 2008. It should be emphasized that a fair proportion of the population (slightly increasing over the same period) presumes the authorities are taking action to tackle the issue; the decline in the percentage of people who “don’t know” whether that was the case is a reflection of the level of awareness of this issue in the public domain.

**Fig. 2.5**

Public perceptions of the evolution of waiting lists and the action taken, 2000–2008



Source: MSPS 2009a.

Perceptions regarding accessing an appointment with the doctor and waiting times before entering the doctor’s office once in the health premises, both in primary and specialized care, have also worsened. Issues related to information have a lower score. In particular, institutional information shows the biggest decrease (more specifically, information regarding rights and complaints procedures, as well as the current measures and legislation adopted by health authorities).

### Physical access

Since 19 May 1989, Royal Decree 556/1989, which regulates minimum accessibility criteria for public buildings, a number of regulations of different rank have been approved promoting physical access to buildings used by the public. Each AC has the power to improve the national regulations and, in this sense, regional acts have been approved in different regions since 1981 in order to improve accessibility and/or finance the corresponding reforms in older premises. Moreover, the 2003 Cohesion and Quality Act explicitly includes accessibility to health facilities among the health services quality indicators. In 2004, the SNS Quality Agency presented the accessibility guidelines for

hospitals and primary health care centres to the National Committee of People with Disabilities (CERMI), providing the criteria that all health premises are obliged to fulfil and establishing a new national minimum basis.

## Cross-border health care

The quasi-federal structure of the SNS raises the “cross-border” health issue within the country. The most recent in-depth analysis of the matter was issued in 2007 by the Health Expenditure Analysis Taskforce serving the Conference of Autonomic Presidents (see Section 3.1 *Health expenditure* for further details on these two groups; see also Health Expenditure Analysis Taskforce 2007); data is from the period 2001 to 2005. Table 2.5 shows how the phenomenon has evolved in total number of patients being treated outside their region of residence (“outsiders”) and the associated costs.<sup>7</sup>

**Table 2.5**

Trends in the number of patients being treated outside the region of residence and its cost

|               | Patients' flow across ACs<br>(no. of patients) | Total cost<br>(€) | Average cost<br>per patient (€) |
|---------------|------------------------------------------------|-------------------|---------------------------------|
| <b>2001</b>   | 60 449                                         | 240 889 792       | 3 985                           |
| <b>2002</b>   | 61 207                                         | 253 198 046       | 4 137                           |
| <b>%Δ2002</b> | 1.25                                           | 5.11              | 3.81                            |
| <b>2003</b>   | 60 581                                         | 258 684 799       | 4 270                           |
| <b>%Δ2003</b> | -1.02                                          | 2.17              | 3.22                            |
| <b>2004</b>   | 58 746                                         | 280 303 215       | 4 771                           |
| <b>%Δ2004</b> | -3.03                                          | 8.36              | 11.74                           |
| <b>2005</b>   | 58 556                                         | 290 344 930       | 4 958                           |
| <b>%Δ2005</b> | -0.32                                          | 3.58              | 3.92                            |

Source: Health Expenditure Analysis Taskforce 2007.

Overall the volume of patients treated outside their region of residence has been decreasing, while the total costs and the average cost per patient treated outside have gone up. Leaving aside eventual price variations that may have raised production costs, two factors should be taken into account. On the one hand the regional funding instruments supporting the compensation of costs incurred by regions in serving outsiders were launched in 2001. Given that the observed period is 2001–2005, improvements in the accuracy of billing may partly explain the registered rise in global and average costs; on the other hand, there could be an additional factor linked to patients seeking care outside their region presenting increasingly complex pathologies (and thus being more expensive).

<sup>7</sup> These costs incurred by receptor ACs are liable for compensation by the Health Cohesion Fund (see Section 3.3 *Revenue collection/sources of funds* for a description of this fund and its functioning).



The number of foreigners being treated in the SNS hospitals has been increasing and in 2005 amounted to 14 272 (see Table 2.6); the first consideration should be that the data only represents those foreigners who do not have their residence in Spain (the system does not differentiate between Spaniards and foreign residents). The average annual increase rate in foreigners discharged has been 7.13%, considerably above the annual growth rate for total discharges (1.80%) in the same period. When private hospitals are also included, the average annual growth in foreigner discharges in Spanish hospitals moves up to 9.60% while the total number of discharges only increases by 0.64% annually on average between 2001 and 2005. Andalucía, the Balearic Islands, Catalonia, Valencia, and Melilla and Ceuta are the regions receiving the highest volume of foreigner patients. The average cost per patient is clearly below that shown for patients coming from other ACs.

**Table 2.6**

Trends in the number of foreign patients being discharged from SNS hospitals and its cost per AC

|                           | 2001   |                   | 2002   |                   | 2003   |                   | 2004   |                   | 2005   |                   |
|---------------------------|--------|-------------------|--------|-------------------|--------|-------------------|--------|-------------------|--------|-------------------|
|                           | Cases  | Cost <sup>a</sup> | Cases  | Cost <sup>a</sup> | Cases  | Cost <sup>a</sup> | Cases  | Cost <sup>a</sup> | Cases  | Cost <sup>a</sup> |
| <b>Andalucía</b>          | 1 550  | 5 025.8           | 1 492  | 5 226.2           | 2 364  | 6 815.3           | 2 614  | 8 237.0           | 3 918  | 13 977.3          |
| <b>Aragón</b>             | 143    | 385.2             | 112    | 339.8             | 143    | 408.8             | 91     | 359.2             | 131    | 465.4             |
| <b>Asturias</b>           | 53     | 161.9             | 63     | 234.7             | 58     | 218.0             | 57     | 208.2             | 68     | 248.9             |
| <b>Balearic Islands</b>   | 1 443  | 4 579.3           | 1 346  | 4 553.8           | 1 282  | 4 410.2           | 1 377  | 5 676.3           | 1 267  | 5 179.7           |
| <b>Canary Islands</b>     | 163    | 573.1             | 192    | 618.0             | 66     | 281.5             | 69     | 223.5             | 17     | 146.9             |
| <b>Cantabria</b>          | 543    | 1 389.0           | 721    | 1 868.3           | 918    | 2 410.3           | 1 122  | 3 009.0           | 1 183  | 3 464.6           |
| <b>Castilla–León</b>      | 314    | 997.7             | 382    | 1 261.7           | 350    | 1 488.2           | 358    | 1 533.1           | 294    | 1 292.7           |
| <b>Castilla–La Mancha</b> | 73     | 205.1             | 113    | 373.6             | 85     | 287.6             | –      | –                 | 73     | 425.0             |
| <b>Catalonia</b>          | 2 923  | 8 857.3           | 3 135  | 10 037.1          | 2 709  | 10 156.1          | 2 908  | 12 038.4          | 3 155  | 13 095.5          |
| <b>Valencia</b>           | 1 548  | 4 475.9           | 1 335  | 4 199.0           | 1 535  | 4 811.8           | 1 404  | 5 139.7           | 1 230  | 4 607.4           |
| <b>Extremadura</b>        | 30     | 90.8              | 216    | 776.2             | 197    | 778.3             | 192    | 734.9             | 198    | 881.7             |
| <b>Galicia</b>            | –      | –                 | 196    | 710.5             | 221    | 869.2             | 241    | 969.3             | 230    | 1 041.0           |
| <b>Madrid</b>             | 199    | 942.6             | 216    | 901.0             | 199    | 964.6             | 239    | 1 159.6           | 205    | 979.5             |
| <b>Murcia</b>             | 117    | 397.7             | 138    | 618.7             | 103    | 460.6             | 69     | 240.4             | 87     | 363.3             |
| <b>Navarra</b>            | 2      | 4.1               | 1      | 3.5               | 1      | 2.7               | 1      | 8.4               | 2      | 24.1              |
| <b>Basque Country</b>     | 87     | 273.7             | 179    | 700.9             | 169    | 650.4             | 180    | 688.6             | 167    | 642.8             |
| <b>La Rioja</b>           | 1      | 3.0               | –      | –                 | –      | –                 | –      | –                 | 2      | 6.6               |
| <b>Ceuta</b>              | 482    | 1 204.3           | 468    | 1 162.2           | 614    | 1 513.1           | 871    | 2 430.4           | 910    | 2 620.5           |
| <b>Melilla</b>            | 845    | 1 888.9           | 640    | 1 462.7           | 1 030  | 2 517.2           | 986    | 2 905.1           | 1 135  | 3 487.4           |
| <b>TOTAL</b>              | 10 516 | 31 455.4          | 10 945 | 35 048.0          | 12 044 | 39 044.0          | 12 779 | 45 561.0          | 14 272 | 52 950.0          |
| <b>Average cost</b>       |        | 2 991.0           |        | 3 202.0           |        | 3 242.0           |        | 3 565.0           |        | 3 710.0           |

Source: Health Expenditure Analysis Taskforce 2007.

Note: <sup>a</sup>thousand €.



## 3. Financing

The SNS is characterized by two main features: universal access to health care for all Spanish citizens and total devolution of health care to the Spanish regions, progressively enhanced until its completion in 2002. The population, even illegal immigrants, has the right of free access to services and benefits, quite a comprehensive package, although rather limited for long-term care and optical and dental services, with some regional diversity for certain benefits.

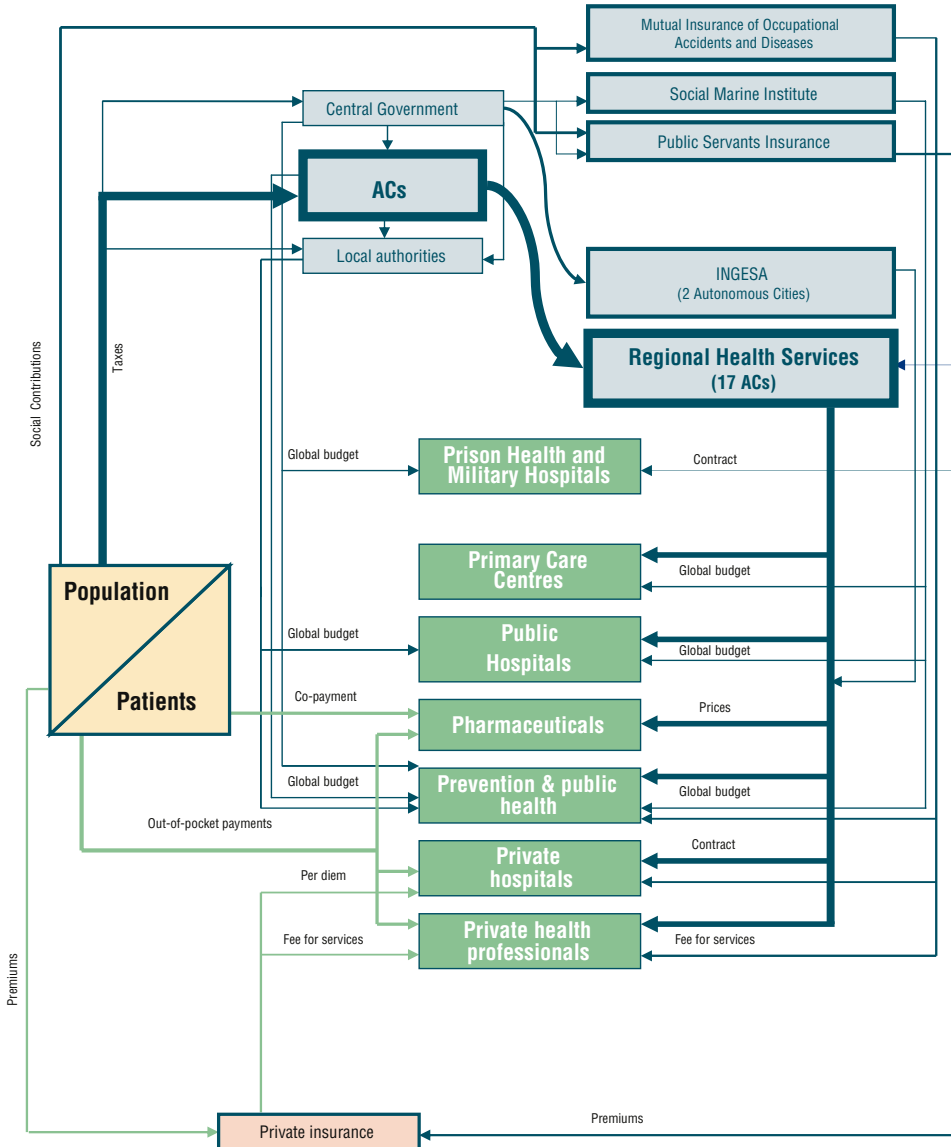
This chapter describes the economic and financial aspects of the SNS; it covers expenditure issues (including its analysis per AC, per functions and per economic categories) and explains the sources of revenue and the allocation procedure. Fig. 3.1 provides a general overview of the financial flows within the system.

### 3.1 Health expenditure

Health expenditure in Spain has followed the international upward trends, both in terms of per capita amount and as a share of GDP (Table 3.1). Most of the expenditure is from public sector sources; this percentage decreased progressively from 1980 to 2000, remaining stable at around 71% for the last decade; the share of expenditure sourced from private insurance has followed a symmetrically opposite trend with almost no changes since 2005 (6% of total expenditure on health); OOP spending, on the other hand, has moved slightly downwards towards the current 21%.

Fig. 3.2 zooms in to examine the annual dynamic during the period 1991–2007. Regarding global health expenditure, the upward trend seems to have accelerated from 2002, the year in which devolution of health responsibility to the ACs was completed. Overall private contribution to total health expenditure was 21.3% in 1990; there has been a noticeable increase in this share, up to 30% in 2005; with slight decreases, it has lingered at this level henceforth; the introduction of fiscal exemptions to stimulate the private insurance market in the second half of the 1990s may explain part of this phenomenon (Rico & Sabés 2000).

**Fig. 3.1**  
Financial flows across the SNS



Source: OECD 2009b.

**Table 3.1**

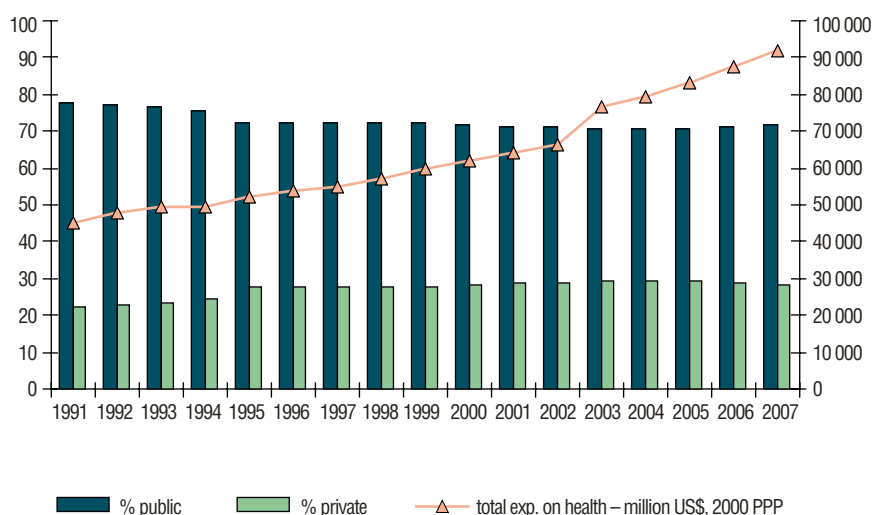
Trends in health care expenditure in Spain, 1980–2007

|                                                     | 1980 | 1985 | 1990 | 1995  | 2000  | 2005  | 2006  | 2007  |
|-----------------------------------------------------|------|------|------|-------|-------|-------|-------|-------|
| Total expenditure on health per capita US\$ PPP     | 363  | 496  | 872  | 1 193 | 1 536 | 2 267 | 2 466 | 2 671 |
| Total expenditure on health % GDP                   | 5.3  | 5.4  | 6.5  | 7.4   | 7.2   | 8.3   | 8.4   | 8.5   |
| Public expenditure on health % total exp. on health | 79.9 | 81.1 | 78.7 | 72.2  | 71.6  | 70.6  | 71.2  | 71.8  |
| Private insurance % total health expenditure        | 3.2  | 3.7  | 3.7  | 3.4   | 3.9   | 5.9   | 6.0   | 5.9   |
| OOP payments % total health expenditure             | n/a  | n/a  | n/a  | 23.6  | 23.6  | 22.4  | 21.5  | 21.0  |
| OOP payments per capita US\$ PPP                    | n/a  | n/a  | n/a  | 281   | 362   | 507   | 530   | 562   |

Source: OECD 2009b.

**Fig. 3.2**

Health expenditure evolution and public/private relative mix of sources

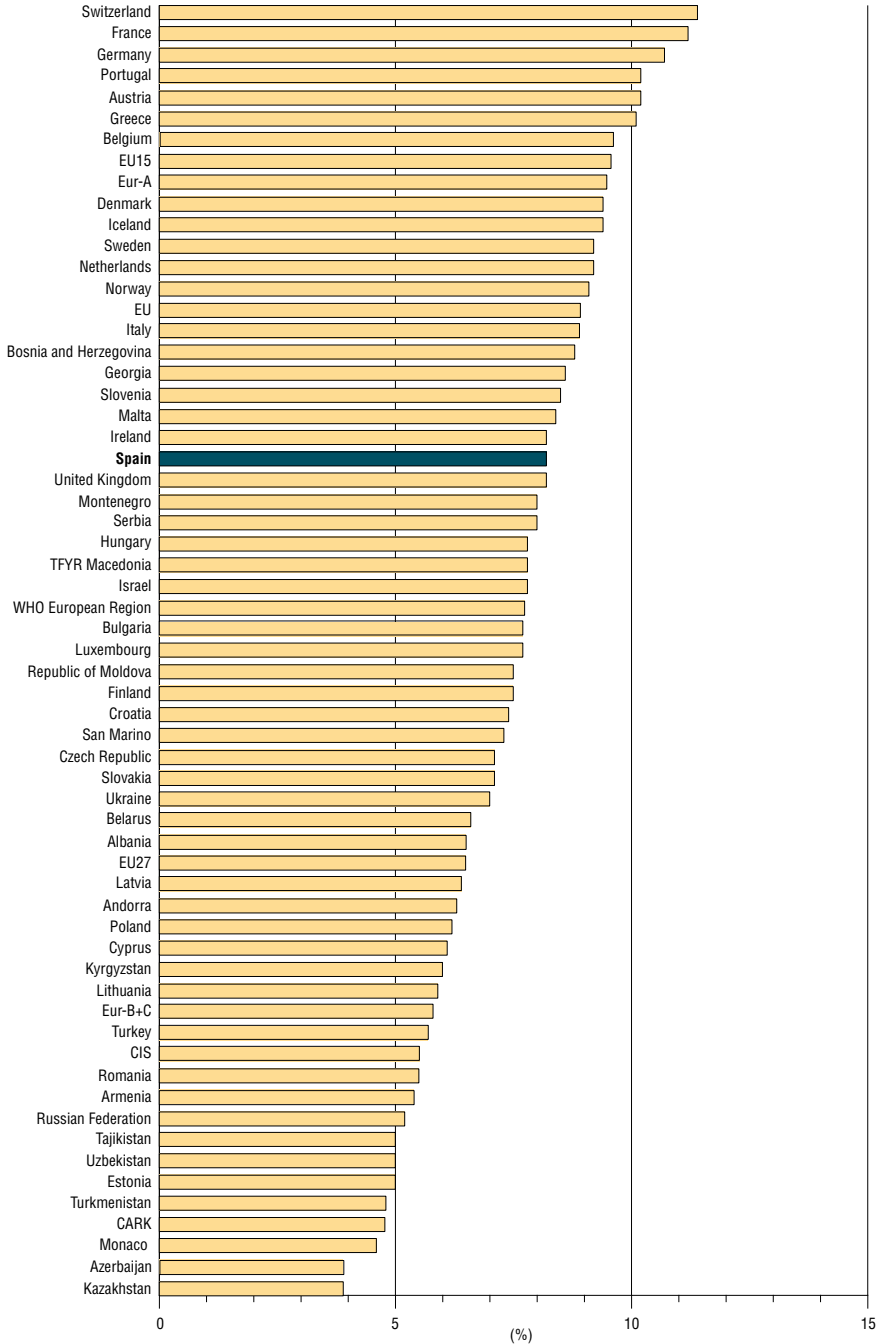


Source: OECD 2009b.

Compared to health expenditure in other WHO European Region countries, Spain invests a percentage of GDP (8.3%) slightly below the average among EU15 members (close to 10%), similar to the levels in the United Kingdom and Ireland for the year of reference (Fig. 3.3). Per capita expenditure, US\$ 2267 PPP, is also lower than that obtained for EU15 (above US\$ 2900 PPP), just below Finland and above Portugal for the year of reference (Fig. 3.4).

**Fig. 3.3**

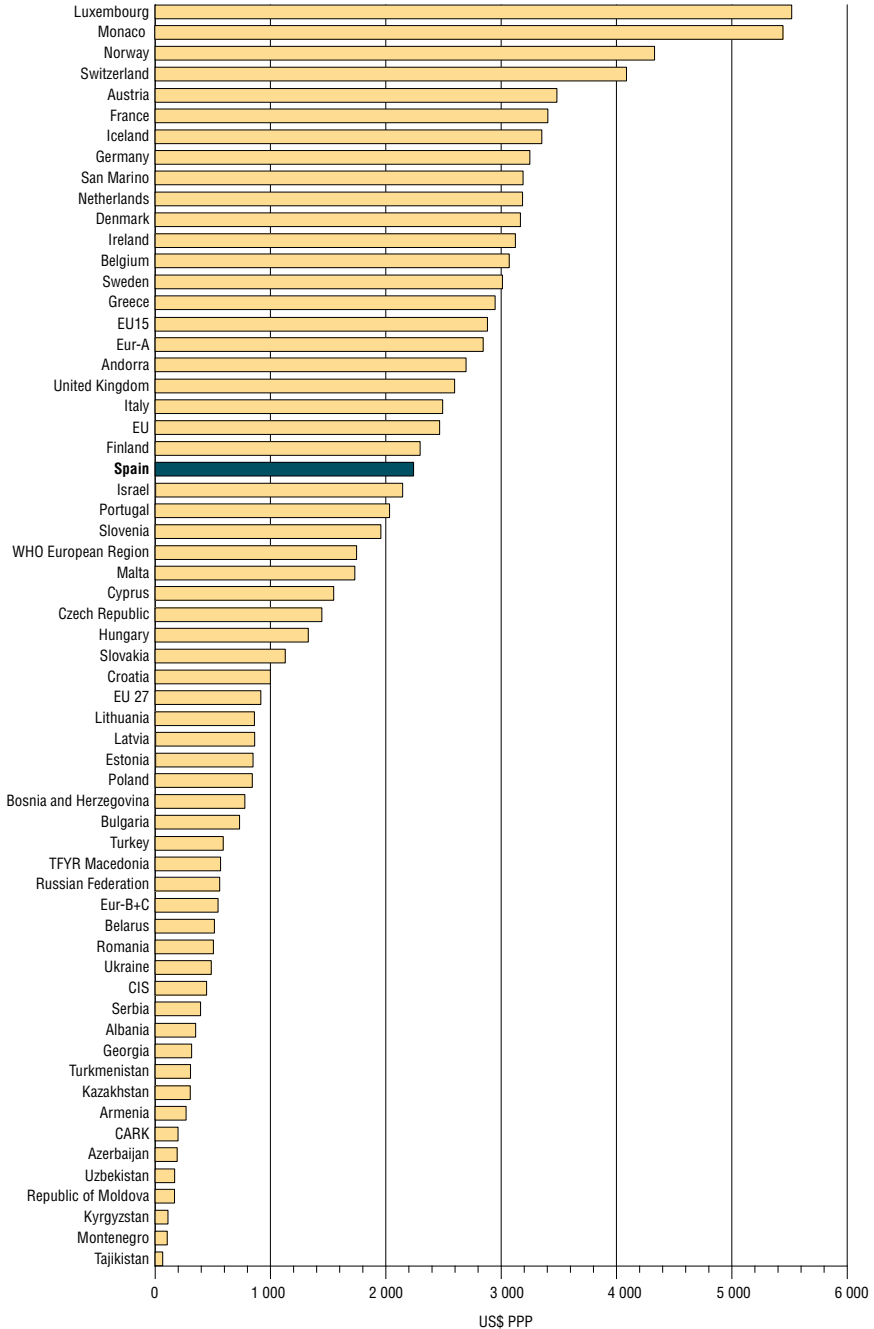
Health care expenditure as a share of GDP (%) in the WHO European Region, 2005



Source: WHO Regional Office for Europe 2009.

**Fig. 3.4**

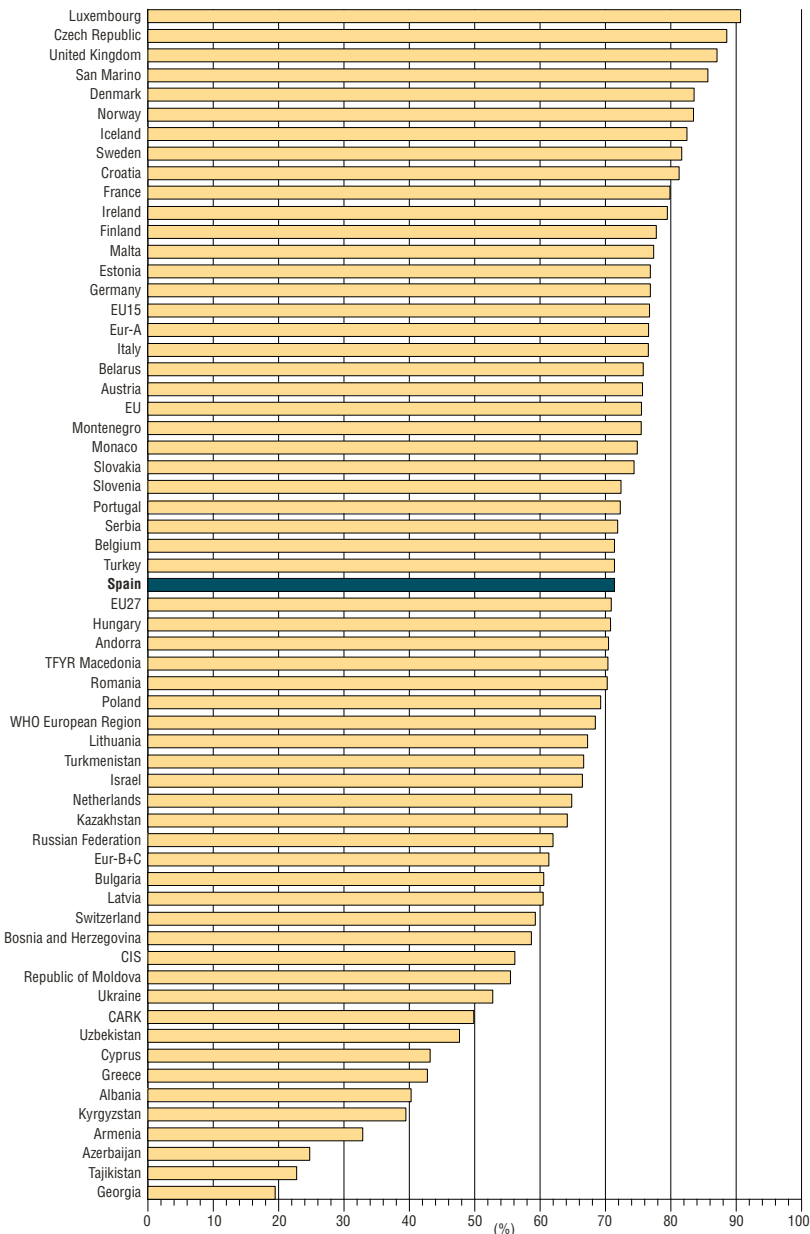
Health care expenditure in US\$ PPP per capita in the WHO European Region, 2005



Source: WHO Regional Office for Europe 2009.

The share of the public sector in total health expenditure is among the lowest registered for EU15, whose average lies around 78% for the latest year of reference available, compared to Spain's 70.6% (Fig. 3.5).

**Fig. 3.5**  
Public sector health expenditure as a percentage of total health expenditure, 2005



Source: WHO Regional Office for Europe 2009.



The most recent international figures for Spain (2007; OECD 2009b) yield a 28.8% share of private sources in total health expenditure; this private expenditure unfolds into 22.4% funded out of pocket by households (mainly co-payment for drug prescriptions for under-65s, over-the-counter drugs, dental care and optical items such as lenses and glasses), 5.5% corresponding to private insurance and the remaining 0.9% spent by private non-profit-making organizations serving families.

Public expenditure also deserves further scrutiny. The most reliable source for this purpose is the Health Expenditure Analysis Taskforce, a working group of experts, led by the General Comptroller of the State Administration (IGAE), dependent on the Ministry of Economy and Treasury, gathered under the auspices of the Conference of Autonomic Presidents.<sup>1</sup> According to the latest report issued by this working group, ACs administer 89.81% of the public resources, central administration spends 3% and 1.25% corresponds to the municipalities; the two autonomous cities in North Africa account for 0.01% of public expenditure.

As outlined in Chapter 2, different models of expenditure arrangements coexisted in Spain until 2002. The most extended model, applied in ten ACs, was characterized by centralized administration and financing of health care by INSALUD. The second model, found in five ACs, was instead defined by decentralized administration and expenditure responsibility. In these five ACs, expenditure was funded through specific grants, which yielded low taxation autonomy and, in turn, increased difficulty in allocating additional resources to public health care. The final model only existed in two ACs (Navarra and the Basque Country), which enjoyed expenditure autonomy and a high level of self-government regarding taxation. Since 2002, the process of decentralizing health care and financing in Spain has extended to all ACs. Moreover, the new system departs from the previous model of earmarked block-grants for health care, by integrating it into the general financing system of ACs (see Section 3.2 *Population coverage and basis for entitlement*).

---

1 This highest-level summit is convened by the Prime Minister and gathers together the presidents of all ACs. Four of these thematic Conferences of Presidents have taken place so far (the first in 2005); each of them has covered major policy issues in which both ACs and central administration have competences, such as research and innovation, coordination of the SNS, regional financing and resources allocation, water policy, unemployment and the economic crisis. These conferences result in agreements and recommendations that constitute mandates for the corresponding policy-making bodies, for instance the CISNS. The setting up of the Health Expenditure Analysis Taskforce was mandated by the 2005 Conference of Presidents and it has been working to produce evidence to inform agreements on regional funding and the functioning of the health leveraging funds. So far, they have issued two reports, the first analysis covering the period 1999–2003, published in 2005, and the second including data from 2003 to 2007, produced in 2008.

Health care is the foremost policy responsibility of the ACs. In conjunction with education, these social expenditure items account for more than 70% of total public funds in the hands of ACs.

Per capita expenditure at country level registered an average annual increase rate of 6.97% in the period 1999–2005, with inter-annual changes ranging from 4.82% (2001) to 9.05% (2003). Descending to the regional level, leaving aside capital expenditure and focusing on the current component, per capita expenditure has experienced an annual average rise of between 5.38% and 10.82% for the same period, with simultaneous substantial increments in the protected population. Table 3.2 presents the corresponding figures for the period 2007–2009. In this case, the percentage increase in per capita expenditure at national level was 6% in 2008 and 3.2% in 2009 (austerity prescribed by the economic crisis might underpin this deceleration in growth).

**Table 3.2**

ACs' expenditure per person protected and annual increase, 2007–2009

|                          | 2007 (€) | 2008 (€) | 2009 <sup>a</sup> (€) | 08/07 (%) | 09/08 (%) |
|--------------------------|----------|----------|-----------------------|-----------|-----------|
| Andalucía                | 1 096.82 | 1 171.11 | 1 186.45              | 6.77      | 1.31      |
| Aragón                   | 1 252.41 | 1 324.19 | 1 418.95              | 5.73      | 7.16      |
| Asturias                 | 1 236.27 | 1 268.77 | 1 460.58              | 2.63      | 15.12     |
| Balearic Islands         | 1 040.93 | 1 096.12 | 1 126.43              | 5.30      | 2.76      |
| Basque Country           | 1 219.07 | 1 372.76 | 1 432.04              | 12.61     | 4.32      |
| Canary Islands           | 1 338.39 | 1 479.88 | 1 617.42              | 10.57     | 9.29      |
| Cantabria                | 1 203.05 | 1 334.84 | 1 397.97              | 10.95     | 4.73      |
| Castilla-León            | 1 215.25 | 1 254.63 | 1 313.96              | 3.24      | 4.73      |
| Castilla-La Mancha       | 1 105.75 | 1 177.64 | 1 249.27              | 6.50      | 6.08      |
| Catalonia                | 1 197.97 | 1 279.00 | 1 314.36              | 6.76      | 2.76      |
| Extremadura              | 1 326.28 | 1 443.95 | 1 560.82              | 8.87      | 8.09      |
| Galicia                  | 1 216.28 | 1 299.60 | 1 347.14              | 6.85      | 3.66      |
| Madrid                   | 1 084.18 | 1 134.55 | 1 148.84              | 4.65      | 1.26      |
| Murcia                   | 1 125.53 | 1 243.66 | 1 279.09              | 10.50     | 2.85      |
| Navarra                  | 1 287.73 | 1 360.67 | 1 397.38              | 5.66      | 2.70      |
| La Rioja                 | 1 032.99 | 1 076.68 | 1 094.82              | 4.23      | 1.68      |
| Valencia                 | 1 196.73 | 1 240.42 | 1 255.86              | 3.65      | 1.24      |
| TOTAL all ACs            | 1 152.15 | 1 221.86 | 1 261.22              | 6.05      | 3.22      |
| Standard deviation       | 92.35    | 113.80   | 147.05                | –         | –         |
| Coefficient of variation | 7.8%     | 9.00 %   | 11.1%                 | –         | –         |

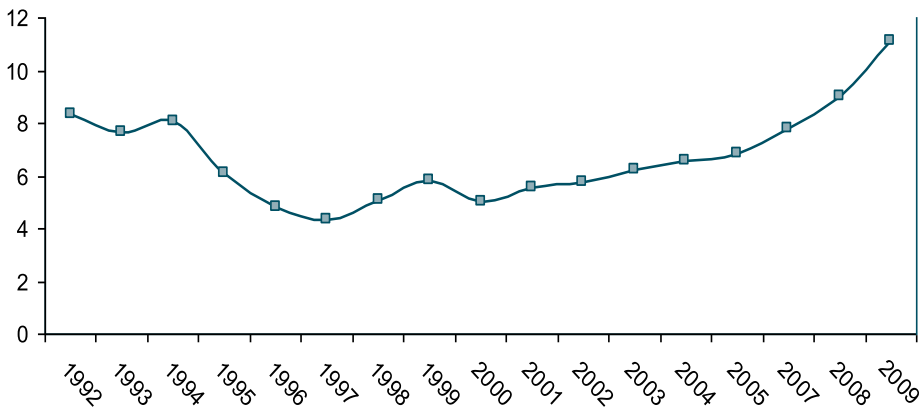
Source: MSPS 2009I.

Note: <sup>a</sup> Provisional data.

The range of variation in per capita expenditure across ACs is moderate, but the series shows an increasing coefficient of variation which raises some questions (Fig. 3.6 shows the coefficient of variation from 1992). As some authors have pointed out, initially the level of variability did not seem to increase following the 2002 reforms (Cantarero & Lago-Peñas 2008); the most recent figures, however, suggest that variability across the territory is increasing (Fig. 3.6). The simplest approximation, illustrated in Fig. 3.7, reveals how changes in the volume of population protected fail to explain this variability; structure and dispersion of the population as well as geographical factors, such as insularity, are considered relevant factors in weighting per capita expenditure in Spain (see the resources allocation formula in Section 3.2). Yet considerations about the potential impact of eventual differences in volume and quality of the services provided in each territory should be made in assessing these variations; this justifies the substantial efforts fostered by the CISNS to broaden and refine the monitoring ability of the SNS in order to improve the application of leveraging mechanisms that could guarantee equity across the system.

**Fig. 3.6**

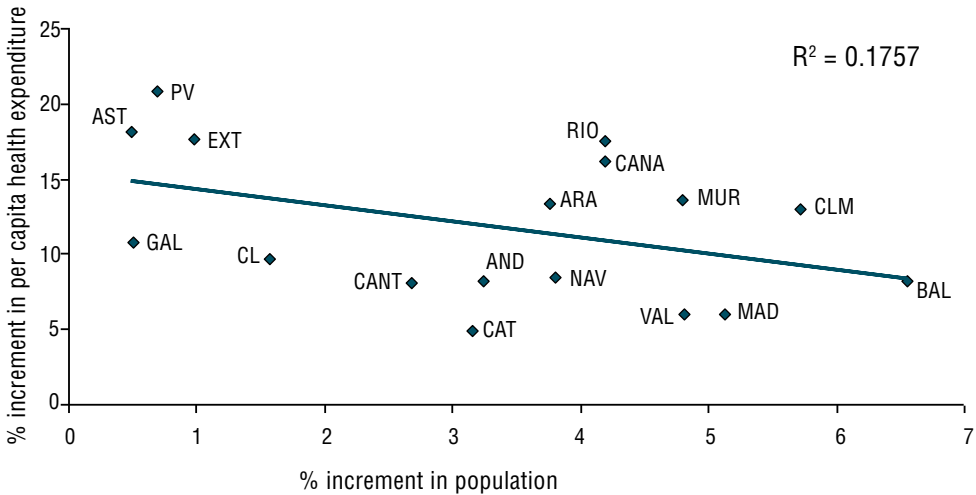
Evolution of coefficient of variation of per capita expenditure across ACs, 1992–2009



Source: Based on MSPS 2009I.

**Fig. 3.7**

Correlation between annual variation in per capita expenditure and annual variation in population protected across ACs, 2007–2009



Source: Based on MSPS 2009I.

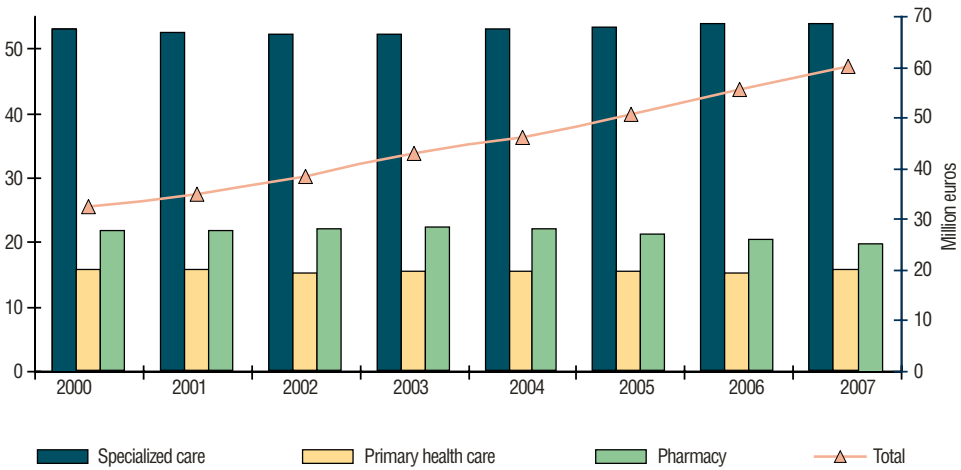
Notes: AND (Andalucía), ARA (Aragón), AST (Asturias), BAL (Balearic Islands), CANA (Canary Islands), CANT (Cantabria), CLM (Castilla-La Mancha), CL (Castilla-León), CAT (Catalonia), EXT (Extremadura), GAL (Galicia), MAD (Madrid), MUR (Murcia), NAV (Navarra), PV (Basque Country), RIO (La Rioja), VAL (Valencia).

Public health expenditure can be broken down into its functional elements. The highest single item in health expenditure is, as usual, specialized care (hospital and outpatient), which in 2007 amounted to 54% of the total expenditure (Fig. 3.8 and Table 3.3). In fact, the proportion of public expenditure devoted to this category has remained virtually constant over the whole period of analysis; however, given that 2007 total public health expenditure was 84% greater than that incurred in 2000, it is easy to see that the actual growth of resources devoted to specialized services is among the highest, with a net growth around 87% with respect to 2000. Primary health care expenditure has also seen a substantial increase since 2000 (84% growth), with a sustained share

of between 15% and 16% of the total public budget spent; annual percentage growth seems to have accelerated again in 2007, reaching inter-annual rates similar to that registered in 2003.

**Fig. 3.8**

Growth of total public health expenditure and changes in the share (%) of the main components of expenditure



Source: MSPS 2009I

Pharmaceuticals represent the second highest item in expenditure share, and the same was true of its annual growth rate until 2003; the implementation of the rationalization measures agreed at the CISNS in 2004 has had a positive impact in slowing down the growth in the pharmaceutical bill (see Section 6.6 *Pharmaceutical care* for further details). As a result, not only has the inter-annual percentage increase decelerated, but even the share of pharmacy in total health care expenditure has been steadily decreasing since 2004. In 2007, the growth of expenditure on pharmaceuticals was 5.3%, in contrast to the 13.2% annual growth registered in 2003. In 2007, expenditure on pharmaceuticals was 19.8% of health expenditure by the public sector, in contrast to the 22.4% in 2003.

**Table 3.3**  
Public health expenditure by function in euros, 2000–2007

|                                          | 2000       | 2001       | 00/01 | % Δ        | 2002 | 01/02      | % Δ   | 2003       | 02/03 | % Δ        | 2004 | 03/04      | % Δ  | 2005       | 04/05 | % Δ        | 2006 <sup>a</sup> | 05/06      | % Δ  | 2007 <sup>a</sup> | 06/07 | % Δ   | 00/07 |
|------------------------------------------|------------|------------|-------|------------|------|------------|-------|------------|-------|------------|------|------------|------|------------|-------|------------|-------------------|------------|------|-------------------|-------|-------|-------|
| Specialized care                         | 17 363 703 | 18 488 305 | 6.5   | 20 142 303 | 8.9  | 22 502 542 | 11.7  | 24 576 854 | 9.2   | 27 004 400 | 9.9  | 30 043 254 | 11.3 | 32 503 175 | 8.2   | 32 503 175 | 8.2               | 32 503 175 | 8.2  | 32 503 175        | 8.2   | 87.2  |       |
| Primary health care                      | 5 129 117  | 5 517 888  | 7.6   | 5 879 320  | 6.6  | 6 561 856  | 11.6  | 7 148 588  | 8.9   | 7 824 212  | 9.5  | 8 443 846  | 7.9  | 9 438 423  | 11.8  | 9 438 423  | 11.8              | 9 438 423  | 11.8 | 9 438 423         | 11.8  | 84.0  |       |
| Public health services                   | 517 142    | 545 516    | 5.5   | 571 254    | 4.7  | 491 616    | -13.9 | 572 054    | 16.4  | 630 734    | 10.3 | 737 797    | 17.0 | 835 340    | 13.2  | 835 340    | 13.2              | 835 340    | 13.2 | 835 340           | 13.2  | 61.5  |       |
| Collective health services <sup>b</sup>  | 897 201    | 964 746    | 7.5   | 1 274 486  | 32.1 | 1 373 673  | 7.8   | 1 320 176  | -3.9  | 1 486 662  | 12.6 | 1 644 236  | 10.6 | 1 839 048  | 11.8  | 1 839 048  | 11.8              | 1 839 048  | 11.8 | 1 839 048         | 11.8  | 105.0 |       |
| Pharmacy                                 | 7 109 907  | 7 679 896  | 8.0   | 8 487 170  | 10.5 | 9 611 402  | 13.2  | 10 152 795 | 5.6   | 10 757 586 | 6.0  | 11 303 003 | 5.1  | 11 901 960 | 5.3   | 11 901 960 | 5.3               | 11 901 960 | 5.3  | 11 901 960        | 5.3   | 67.4  |       |
| Patient transport, therapeutic equipment | 537 835    | 563 877    | 4.8   | 630 193    | 11.8 | 694 624    | 10.2  | 767 875    | 10.5  | 799 382    | 4.1  | 971 365    | 21.5 | 1 074 905  | 10.7  | 1 074 905  | 10.7              | 1 074 905  | 10.7 | 1 074 905         | 10.7  | 99.9  |       |
| Capital expenditure                      | 1 115 877  | 1 371 107  | 22.9  | 1 578 320  | 15.1 | 1 721 175  | 9.1   | 1 810 339  | 5.2   | 2 083 862  | 15.1 | 2 538 557  | 21.8 | 2 582 585  | 1.7   | 2 582 585  | 1.7               | 2 582 585  | 1.7  | 2 582 585         | 1.7   | 131.4 |       |
| Total                                    | 32 670 782 | 35 131 335 | 7.5   | 38 563 045 | 9.8  | 42 956 889 | 11.4  | 46 348 681 | 7.9   | 50 586 839 | 9.1  | 55 682 059 | 10.1 | 60 175 426 | 8.1   | 60 175 426 | 8.1               | 60 175 426 | 8.1  | 60 175 426        | 8.1   | 84.2  |       |

Source: MSPS 2009i.

Notes: <sup>a</sup> Provisional data.

<sup>b</sup> Collective services include administration, research, etc.

The increase in pharmacy expenditure shows some variation across ACs. Table 3.4a shows total public expenditure linked to prescriptions issued within SNS across regions between 2002 and 2008, while Table 3.4b refers to the corresponding annual increments. In 2003, increments were above 10% in most of the regions, while in 2008 expenditure increase linked to pharmaceutical prescription was below 7% in most of the territory. However, differences between ACs remain significant. In 2008, Cantabria, Catalonia, Madrid and La Rioja experienced rises in their prescription expenditure with respect to the previous year of between 8% and 9%; Castilla-León and Galicia were at the other extreme of the spectrum showing increases of around 5%, or Valencia and Murcia roughly 6%. Examining the volume of prescriptions and the average expenditure per prescription for the same year (Table 3.5), the pattern does not match, with the four ACs mentioned as having the lowest inter-annual change in expenditure being also among those with higher increases in both volume and cost of prescriptions. Catalonia and Madrid, on the other hand, have experienced an average increase in the number of prescriptions, with a particularly low increase in the expenditure per prescription (below 1%).

Expenditure on prevention and public health services has followed a somewhat erratic path over this period, with real cuts in absolute expenditure translating into a negative annual change rate in the range of -13% in 2003. Nevertheless, the overall growth in spending on this item over the period is over 60%, which translates into 1.4% of total health expenditure in 2007, only slightly below the percentage in 2000 (see Table 3.3). The new Act on Public Health may foster a more consistent approach (see Section 6.1 *Public health*).

Capital expenditure has seen considerable growth (more than 130% over the period 2000–2007). Two peaks should be noted, the first during the period immediately preceding the completion of transference of health competences to the regional governments (2001–2002), and the second after the enforcement of the new regional financing system, which substantially increased the discretion of regional governments in determining health expenditure from 2005 (see Section 3.2 *Population coverage and basis for entitlement*). However, 2007 has witnessed a drastic slowdown in the growth of this item (from a 21.8% increase in 2006 to a bare 1.7% in 2007). The impact of this slow-down has been uneven across ACs (Table 3.6).

**Table 3.4a**

Pharmaceutical public expenditure on prescriptions across ACs, 2002–2008  
(million euros)

|                    | 2002     | 2003     | 2004     | 2005      | 2006      | 2007      | 2008      |
|--------------------|----------|----------|----------|-----------|-----------|-----------|-----------|
| Andalucía          | 1 393.91 | 1 525.87 | 1 628.12 | 1 664.61  | 1 755.11  | 1 842.69  | 1 956.74  |
| Aragón             | 257.94   | 283.75   | 306.01   | 322.16    | 345.04    | 363.76    | 391.96    |
| Asturias           | 230.60   | 256.66   | 273.92   | 285.83    | 305.20    | 318.50    | 339.14    |
| Balearic Islands   | 136.58   | 154.47   | 167.30   | 178.43    | 188.53    | 198.28    | 212.19    |
| Basque Country     | 383.98   | 421.61   | 451.72   | 484.54    | 513.12    | 531.72    | 565.75    |
| Canary Islands     | 100.24   | 111.34   | 120.43   | 126.89    | 135.43    | 144.11    | 154.08    |
| Cantabria          | 373.60   | 427.66   | 450.14   | 475.59    | 509.43    | 540.93    | 586.66    |
| Castilla-La Mancha | 471.22   | 529.05   | 571.92   | 597.31    | 630.19    | 660.66    | 705.63    |
| Castilla-León      | 1 332.46 | 1 484.13 | 1 564.13 | 1 623.35  | 1 702.69  | 1 747.53  | 1 843.77  |
| Catalonia          | 322.44   | 367.99   | 407.01   | 434.27    | 465.25    | 489.43    | 533.30    |
| Extremadura        | 596.99   | 656.23   | 697.26   | 737.81    | 788.07    | 817.31    | 871.54    |
| Galicia            | 808.08   | 908.87   | 981.64   | 1 037.88  | 1 122.97  | 1 192.56  | 1 247.59  |
| Madrid             | 243.53   | 276.37   | 307.56   | 331.96    | 361.56    | 385.94    | 416.19    |
| Murcia             | 107.52   | 119.43   | 128.53   | 136.53    | 145.37    | 151.59    | 160.86    |
| Navarra            | 986.10   | 1 105.16 | 1 201.05 | 1 274.31  | 1 367.85  | 1 453.53  | 1 554.74  |
| La Rioja           | 53.02    | 59.37    | 64.16    | 68.79     | 73.64     | 77.73     | 84.58     |
| Valencia           | 225.15   | 250.56   | 267.12   | 279.41    | 298.03    | 311.87    | 330.92    |
| Spain              | 8 039.04 | 8 956.30 | 9 607.75 | 10 080.85 | 10 729.97 | 11 251.60 | 11 981.89 |

Source: MSPS 2009c.

**Table 3.4b**

Annual changes in pharmaceutical public expenditure on prescription across ACs,  
2002–2008 (% increase)

|                    | 02/03 %Δ | 03/04 %Δ | 04/05 %Δ | 05/06 %Δ | 06/07 %Δ | 07/08 %Δ |
|--------------------|----------|----------|----------|----------|----------|----------|
| Andalucía          | 9.47     | 6.70     | 2.24     | 5.44     | 4.99     | 6.19     |
| Aragón             | 10.01    | 7.84     | 5.28     | 7.10     | 5.43     | 7.75     |
| Asturias           | 11.30    | 6.72     | 4.35     | 6.78     | 4.36     | 6.48     |
| Balearic Islands   | 13.10    | 8.31     | 6.65     | 5.66     | 5.17     | 7.02     |
| Basque Country     | 9.80     | 7.14     | 7.27     | 5.90     | 3.62     | 6.40     |
| Canary Islands     | 11.07    | 8.16     | 5.36     | 6.73     | 6.41     | 6.92     |
| Cantabria          | 14.47    | 5.26     | 5.65     | 7.12     | 6.18     | 8.45     |
| Castilla-La Mancha | 12.27    | 8.10     | 4.44     | 5.50     | 4.84     | 6.81     |
| Castilla-León      | 11.38    | 5.39     | 3.79     | 4.89     | 2.63     | 5.51     |
| Catalonia          | 14.13    | 10.60    | 6.70     | 7.13     | 5.20     | 8.96     |
| Extremadura        | 9.92     | 6.25     | 5.82     | 6.81     | 3.71     | 6.64     |
| Galicia            | 12.47    | 8.01     | 5.73     | 8.20     | 6.20     | 4.61     |
| Madrid             | 13.48    | 11.29    | 7.93     | 8.92     | 6.74     | 7.84     |
| Murcia             | 11.08    | 7.62     | 6.22     | 6.47     | 4.28     | 6.12     |
| Navarra            | 12.07    | 8.68     | 6.10     | 7.34     | 6.26     | 6.96     |
| La Rioja           | 11.98    | 8.07     | 7.22     | 7.05     | 5.55     | 8.81     |
| Valencia           | 11.29    | 6.61     | 4.60     | 6.66     | 4.64     | 6.11     |
| Spain              | 11.41    | 7.27     | 4.92     | 6.44     | 4.86     | 6.49     |

Source: MSPS 2009c.



**Table 3.5**

Increments in number of prescriptions funded by the SNS and in the average public expenditure per prescription in 2008

|                    | Number of SNS prescriptions % $\Delta$ | SNS average expenditure per prescription % $\Delta$ |
|--------------------|----------------------------------------|-----------------------------------------------------|
| Andalucía          | 6.07                                   | 0.12                                                |
| Aragón             | 4.19                                   | 3.42                                                |
| Asturias           | 3.95                                   | 2.43                                                |
| Balearic Islands   | 4.39                                   | 2.52                                                |
| Basque Country     | 4.73                                   | 1.59                                                |
| Canary Islands     | 7.57                                   | 1.29                                                |
| Cantabria          | 4.06                                   | 2.75                                                |
| Castilla-La Mancha | 5.49                                   | 2.81                                                |
| Castilla-León      | 4.54                                   | 2.17                                                |
| Catalonia          | 4.57                                   | 0.90                                                |
| Extremadura        | 3.95                                   | 2.08                                                |
| Galicia            | 4.51                                   | 2.03                                                |
| Madrid             | 4.03                                   | 0.56                                                |
| Murcia             | 6.01                                   | 1.73                                                |
| Navarra            | 4.83                                   | 1.22                                                |
| Valencia           | 5.55                                   | 1.34                                                |
| La Rioja           | 4.82                                   | 3.81                                                |
| TOTAL              | 5.07                                   | 1.35                                                |

Source: MSPS 2009c.

**Table 3.6**

Capital expenditure per protected person across ACs, 2007–2009

|                              | 2007 (€) | 2008 (€) | 2009* (€) | 07/08 % $\Delta$ | 08/09 % $\Delta$ |
|------------------------------|----------|----------|-----------|------------------|------------------|
| Andalucía                    | 48.77    | 60.23    | 59.42     | 23.50            | -1.35            |
| Aragón                       | 82.40    | 66.54    | 55.48     | -19.25           | -16.62           |
| Asturias                     | 47.86    | 37.10    | 27.25     | -22.47           | -26.56           |
| Balearic Islands             | 49.73    | 56.48    | 55.38     | 13.57            | -1.95            |
| Canary Islands               | 95.74    | 71.81    | 46.73     | -25.00           | -34.93           |
| Cantabria                    | 92.72    | 89.59    | 85.39     | -3.38            | -4.69            |
| Castilla-León                | 86.98    | 108.54   | 98.13     | 24.79            | -9.59            |
| Castilla-La Mancha           | 167.09   | 168.34   | 173.82    | 0.75             | 3.26             |
| Catalonia                    | 35.32    | 32.21    | 39.77     | -8.81            | 23.47            |
| Valencia                     | 47.73    | 46.42    | 45.65     | -2.74            | -1.67            |
| Extremadura                  | 99.58    | 104.87   | 97.21     | 5.31             | -7.31            |
| Galicia                      | 68.36    | 72.92    | 72.46     | 6.67             | -0.63            |
| Madrid                       | 51.36    | 38.67    | 33.22     | -24.72           | -14.08           |
| Murcia                       | 61.32    | 62.15    | 59.38     | 1.35             | -4.45            |
| Navarra                      | 74.92    | 77.69    | 75.79     | 3.70             | -2.45            |
| Basque Country               | 54.46    | 63.64    | 58.07     | 16.86            | -8.75            |
| La Rioja                     | 357.51   | 244.54   | 30.27     | -31.60           | -87.62           |
| TOTAL                        | 65.19    | 64.66    | 60.42     | -0.81            | -6.56            |
| Standard deviation           | 75.77    | 53.09    | 35.21     | –                | –                |
| Mean                         | 89.52    | 82.46    | 65.50     | –                | –                |
| Coefficient of variation (%) | 84.60    | 64.40    | 53.80     | –                | –                |

Source: MSPS 2009l.

Note: \* Budgeted.

### 3.2 Population coverage and basis for entitlement

Population coverage by the SNS is almost universal (99.5%) and guarantees quite a comprehensive benefits package to all citizens. Entitlement is therefore independent of labour status and personal wealth; only 0.5% of the population falls outside this welfare network; this group consists of high-income non-salaried individuals who are not obliged to join the social security system as per the 1088/89 Royal Decree.

Roughly speaking, there are three formulas to gain access to health coverage; the first and the most common formula still has the same name as it did when the statutory system was a social insurance scheme (see Section 2.2 *Historical background: devolution's path*). Known as the general social insurance regime, this scheme includes some 95% of the population covered by the statutory system; the second formula is for civil servants and their dependants who have a special social insurance regime (see Chapter 2) allowing them to either stay within the SNS or opt out. The third formula available applies to foreign residents in Spain and is regulated by the Organic Law 4/2000, on *rights and freedoms of foreigners in Spain and their social integration* and all the subsidiary legislation emanating from it. They can follow different entitlement paths, depending on their country of origin and administrative legal status; EU citizens and persons originally from countries with which there are mutual agreements are included by virtue of these agreements, but they remain insured by their national schemes. In the event of their residing and working permanently in Spain, they have the same entitlement enjoyed by Spanish citizens through the general regime of social insurance; the same applies to immigrants from other countries with legal working status in Spain. Those immigrants in an illegal administrative situation are also fully entitled to health care, provided that they are registered as residents in the municipality.<sup>2</sup> In any case, emergency services are free for anyone in need, regardless of their legal or administrative situation. Children and pregnant women have explicit full coverage despite their legal status.

All ACs, without exception, include within their regulation the principle of universality of personal and collective health care, extending it to all residents. Most of them reproduce the basic central norm (Spanish citizens living in the region, plus temporary residents and non-residents in the terms provided in the Spanish norm are included, while EU and non-EU citizens are covered depending on the international agreements and treaties signed by the Spanish government).

---

2 Spanish law allows the existence of some non-shared data among different administrations to protect citizens' privacy; thus, non-legal residents in Spain can register (and do so in large numbers) in municipal registries and become entitled to health care and education.

## Benefits basket

As in other European countries, the widening of the comprehensive package of health care services offered by the SNS has occurred gradually in response to the advances in scientific medicine and technology. During the 1990s, the debate opened by the *Abril Report* (named after the chairman of the independent committee that assessed the efficiency and sustainability of the SNS) fuelled the discussion about the lack of sufficient evaluation of new interventions and its potential negative impact on the quality of health care and the consequences for expenditure control.

The Royal Decree for Services Provision 63/1995 drew up for the first time the list of services guaranteed by the public health system (the bottom line was to consolidate the entitlement to those services already provided and to make available those for which access was not universal). Safety, effectiveness, quality and efficiency criteria were invoked as key to regulate the introduction of new services and technologies in the benefits basket, but no structured procedure was outlined to this end. The benefits included in 1995 were:

- *Primary health care*, including general medical and paediatric health care provided at primary health care centres and home visits, programmes for disease prevention, health promotion and rehabilitation.
- *Specialized health care* in the form of outpatient and inpatient care covers all medical and surgical specialties in acute care.
- *Pharmaceutical benefits*, according to which 40% co-payment of retail price of prescribed drugs for patients under 65 years old is required. This co-payment does not apply for prescription in an inpatient regime and allows exemptions for some patients, such as severely disabled people, and those who have suffered occupational accidents. There is a range of drugs for chronic diseases, for which co-payment is reduced to 10% of the price, with an annually updated ceiling. From December 1995, this reduced contribution was also extended to AIDS patients. For users of civil servants' mutual funds the co-payment is 30% of retail price, but there is no exemption for those who have retired (65 years old and over).
- *Complementary benefits* include prostheses, orthopaedic products, wheelchairs, health care transportation, complex diets and home-based oxygen therapy. Children's hearing aids were later included in this package. In general, there is no co-payment for these complementary benefits, except for certain orthopaedic products or prostheses.

A number of services were explicitly excluded from financing in the 1995 Royal Decree:

- psychoanalysis and hypnosis
- sex-change surgery (though some regions such as Andalucía, Aragón and Extremadura decided to include it within their territory)
- spa treatments
- plastic surgery not related to accidents, disease or congenital malformation.

The criteria applied to justify exclusions and omissions were as follows.

- Lack of evidence on safety or clinical effectiveness, or evidence that the intervention has been made redundant by other available procedures (for example, a negative list of pharmaceuticals was introduced for the first time in 1993 and updated in 1998, excluding all products of low therapeutic value from public funding).
- Classification of the intervention as leisure activity, relating primarily to rest and comfort, for example sports, aesthetic or cosmetic improvement, water therapy, residential centres or spas.
- Dental care and optical items, such as glasses and contact lenses, remained out of the benefits basket in 1995. The explanation for this absence might be along the lines of social expectations; the population was used to seeking this type of service privately and thus there was no social pressure for its inclusion.

The territorial articulation of the SNS has changed substantially since 1995 and the reasoning behind the definition and updating of the benefits basket has been revised accordingly. In the current devolved situation, the common benefits package aims to enhance equity within the SNS regardless of the territory of residence; it prescribes the minimum services set that ACs are obliged to provide within their financial liability; thus, negotiation and agreement to define the list within the CISNS are warranted. The 1995 Royal Decree had already left the door open for ACs to incorporate additional health activities and services at their own expenses. Differential services across regions often reflected local preferences (for instance, dental care has been included in several ACs). However, this diversity could interfere with access for citizens temporarily located in different regions, or in transit, and might pose a threat to equity across the SNS.

In 2006, following approval by the CISNS, a new Royal Decree (1030/2006) was issued revising the common health benefits basket and establishing the procedure for inclusion of new services or technologies in this package. The inclusion of a certain health service in the common bundle entails henceforth the right of the citizen in need to seek this type of care at the expense of the SNS, even if it is not available in their region of residence (a list of centres of national reference will help in making this right effective; see description below). This Decree is more explicit and brings in a number of new services or details that further the characteristics of those already included. The most salient novelties are listed below.

- Inclusion of public health services as a basic benefit for the first time.
- Primary care benefits are more detailed, describing diagnostic and therapeutic procedures provided in this level of care, health promotion and prevention activities (including family and community care), physiotherapy, mother and child care, adolescent services, services for chronic patients and elderly care. Smoking counselling is also included; mental health care and palliative care services are increased as part of primary care benefits and some aspects of dental health are included.
- Departing from the approach taken in the 1995 Decree, the description of specialized care benefits refers extensively to outpatient care in addition to hospital services; it also incorporates day surgery, day hospital for medical treatment and early discharge from hospital and home-hospitalization programmes.
- Photodynamic therapy, epidural anaesthesia for normal delivery, morbid obesity treatment, subcutaneous insulin bombs, positron emission tomography (PET), intrauterine device (IUD), cardiovascular rehabilitation, speech therapy and care for the terminally ill are brand new services included as part of the common benefits package.
- The contents of transplantation and tissues services, as well as assisted reproduction therapies, have been updated according to new developments.
- The basket for mental health care and rehabilitation has been broadened to include community-based schemes.

Central and regional health ministries have set up technical analysis work-groups to define criteria for accreditation of *services and centres of reference* at national level; these centres of excellence provide specific services involving high technical complexity (and thus hardly available in

each AC) included in the common benefits basket; another work-group is setting priorities for inclusion of new benefits in the common bundle. For the latter, the 2006 Decree establishes that such new benefits should go through a previous step of assessment by the National Agency for Health Technology Assessment in collaboration with the network of regional HTA agencies (see *HTA* in Section 4.2 *Planning and health information management*). The results of this assessment will be reported to the CISNS, which will have the final decision. Both the ACs and the national health administration are entitled to propose the inclusion of a new benefit; the initiative should be backed up by corresponding technical and economic reports assessing the impact for the SNS. The inter-ministerial commission, sustained by the central Ministry of Health and the central Ministry of Economy and Treasury, as well as the Fiscal and Financial Policy Council (a body comprising the economy authorities at regional and central level), will participate in decision-making whenever the estimated budget impact of the new technology is high.

Hitherto, ACs are free to approve their respective health benefits baskets, supplementing the common benefits package of the SNS. The CISNS should be informed about and debate these complementary benefits, and should eventually issue corresponding recommendations. As of 2010, the activities of ACs regarding the development of regional benefits baskets have been limited to the adoption of the common basic bundle defined in the 2006 Royal Decree and further specifying the conditions for access to orthoprosthesis services and dental care within their territories.

### 3.3 Revenue collection/sources of funds

The main source of funds for the statutory SNS is public. Currently, almost all of public health care expenditure (excluding civil servants' mutual funds) is funded through general taxation, while a residual amount is generated by patients with other types of coverage. Taxation provides 94.07% of public resources; payroll and employers' contributions to the work injuries and professional diseases mutuality schemes amount to 2.53% of health funds; the mutual funds catering for civil servants (MUFACE, MUGEJU and ISFAS) deal with 3.4% of the resources, financed from a mix of payroll contributions and taxation (MSPS 2010a). The biggest part of private financing is in turn OOP household expenditure in the form of co-payments for drugs prescription.

## Taxation

As explained previously (see Section 1.3 *Political context*), revenue collection and the pooling of funds in Spain have been evolving rapidly in recent years, adapting to the regionalization of the SNS. Since the transition to democracy, most taxes related to health care have been raised centrally, due to the limited fiscal autonomy of Spanish regional and local governments. The revenue-related resources for the regions consisted of taxes that were either totally or partially assigned by the state. Before 2001, legislation prescribed that the funds related to the previous SHI health services network should be transferred to the ACs (as they received full competences on health), following the regional financing model in force at the time. Each AC would thus elaborate the health functional expenditure budget on an annual basis, including at least the amount established by the regional financing system in force. The budget, once approved, had to be sent to the central administration, in order to determine the total amount allocated for health care.

The central government began to transfer discretion over some taxes to the ACs during the 1980s, while major taxation items remained in the hands of the central administration. The transfer consisted of both devolution of taxes collected at central level and limited tax-raising powers for some direct taxes. In the 1990s, the central state agreed to assign a portion of personal income tax to the ACs, plus part of the indirect taxes on consumption generated within their territories. In December 2001, the three main regional financing systems in force up to that time expired simultaneously (common transferred entitlements, transferred health services and social services) as well as the (exceptional) agreement for the Basque Country based on historical considerations. This situation strengthened the need to adopt an integrated financing model. A new system was approved by the National Council on Finance and Fiscal Policy, and was issued with only slight modifications as an act (21/2001 Act, 27 December, on the regulation of the new financing system for common regime ACs and autonomous cities). The model aimed at guaranteeing financial sustainability and moved a step forward in terms of fiscal co-responsibility and solidarity among regions. Thus, health funding was merged into the general financing model. This meant the phasing out of earmarked allowances transferred from the central administration.

Essentially, the changes introduced by the 21/2001 Act regarding fiscal co-responsibility included:

- the transfer to the ACs of a part of the tax revenues raised within their territories;

- an increase in their authority to modify some taxes; and
- the beginning of the participation of the ACs in the Central Tax Agency.

In terms of resource sufficiency, the following aspects stand out:

- a new distribution of resources among ACs following an allocation formula based on protected population;
- the existence of other sources of finance, such as special assignments from the general budgets of the state acting as leveraging devices (see below); and
- the establishment of guaranteed floors in public funding of the health sector.

Finally, regarding solidarity across regions, the following changes were introduced:

- a new system of regulation for the resources of the Inter-territorial Compensation Fund (FCI); and
- the inclusion in the formula for resource allocation of criteria that improved on the basic per capita approach, introducing weighting elements, such as the proportion of elderly people, and the extension and insularity of the area.

Thus, from 2002 onwards, health care financing has been covered by the regions basically through two types of resources (like any other public service offered by regional governments for that matter): taxes (regional and national – totally or partially shared) and block-grants from the central government. User co-payments play a minor role.

- *Tax-related resources.* The redesign of the taxation system included regional direct control over taxes on gifts and inheritances, properties and property transfers, gambling taxes, and the transfer of around 35% of personal income taxes and VAT, 40% of taxes on hydrocarbon-based products including retail sales, tobacco and alcoholic beverages as well as electricity taxes. These taxes are assigned to each of the ACs based on residence of the taxpayer (in the case of personal income taxes) and the location of a given property (when taxes on property-related transactions are applicable). As regards the VAT on consumption, payment is made according to the place where such consumption takes place or according to consumption parameters calculated on statistical basis.



- *Assignments stemming from the general budgets of the state.* These are structured as follows.
  - The Sufficiency Fund, established within the new Regional Financing Act in December 2001, is meant to provide regions with the resources necessary to fully cover their needs. This fund is calculated individually for each AC, based on the difference between the needed amount of funds (estimated by the parameters included in the allocation formula) and the funds drawn from tax revenues; thus, more affluent ACs, such as the Balearic Islands or Madrid, yield a negative balance, being net contributors to the state, whereas other communities, such as Extremadura and Galicia, are net receivers.
  - The FCI, created in 1984, was designed to finance investment projects to remedy economic imbalances among the different regions (thus implementing a principle of solidarity among them). Following the reform of this fund in 1990, only ACs with a low per capita income benefit from the FCI; these ACs are defined annually and the funding feeds into each year's state general budgets.

Nevertheless, due to the peculiarities of health services, the following two elements were added.

- There is a floor for the amount of resources that must be devoted to health by the ACs. This threshold is worked out by applying demographic and geographic indicators to calculate the expenditure in the reference year (1999) adjusted by health needs; this minimum amount has to be updated on an annual basis in line with the increase in the total state tax revenue (ITE).
- Specific health funds were created or expanded to cover certain expenses in order to foster the implementation of policies to increase efficiency and to reduce inequalities across the SNS. Examples of these funds are the Temporary Disability Savings Programme Fund in the first case and the Health Cohesion Fund in the second. The agreement signed in 2001 allocated approximately €240.4 million to the Temporary Disability Savings Programme Fund to be distributed among the ACs according to population covered. The Health Cohesion Fund was intended as a tool for the Ministry of Health to implement policies guaranteeing cohesion and equity in the SNS. It applied, for instance, in compensating regions that provide health care for individuals with residence in another region,

those who come to Spain from other EU countries, as well as people from other countries that have signed reciprocal health care provision agreements with Spain.

Table 3.7 shows the distribution across ACs of the proportion of regional budget used in health over the three years following the enforcement of the new financial scheme. Fig. 3.9 summarizes the changes experienced in the relative importance of the health budget in the overall budget measured as percentage share; there is some degree of variability across ACs, ranging from losses in share around 10% (Murcia) to increases over 2% (Asturias).

**Table 3.7**

Share (%) of health budgets over general budget across ACs, 2003–2005

|                    | 2003  | 2004  | 2005  |
|--------------------|-------|-------|-------|
| TOTAL              | 32.54 | 30.13 | 29.82 |
| Andalucía          | 29.72 | 27.72 | 27.24 |
| Aragón             | 32.21 | 27.92 | 28.71 |
| Asturias           | 33.82 | 35.24 | 36.16 |
| Balearic Islands   | 37.52 | 31.94 | 32.10 |
| Canary Islands     | 34.79 | 31.55 | 32.86 |
| Cantabria          | 35.13 | 33.98 | 34.13 |
| Castilla-León      | 30.18 | 30.32 | 30.55 |
| Castilla-La Mancha | 28.22 | 26.69 | 29.51 |
| Catalonia          | 34.16 | 31.07 | 28.82 |
| Valencia           | 35.91 | 32.83 | 34.04 |
| Extremadura        | 27.92 | 28.70 | 29.67 |
| Galicia            | 30.74 | 28.45 | 28.12 |
| Madrid             | 36.51 | 33.13 | 31.62 |
| Murcia             | 38.19 | 27.29 | 28.05 |
| Navarra            | 25.29 | 22.93 | 21.39 |
| Basque Country     | 32.29 | 30.72 | 30.46 |
| La Rioja           | 34.52 | 35.32 | 36.32 |

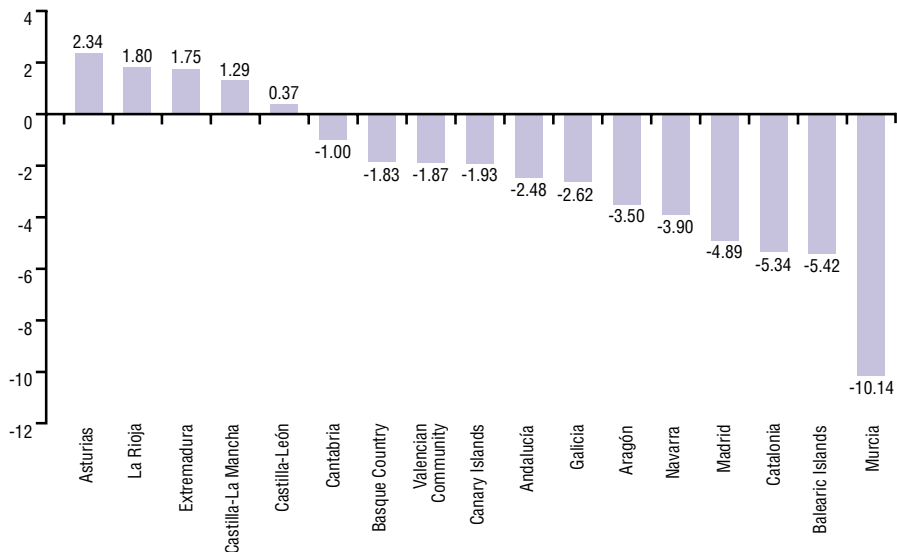
Source: Blanco 2008.

The application of this model and its analysis by the Health Expenditure Analysis Taskforce revealed some difficulties. One major issue was that the use of a year of reference (1999) as the basis for the calculation of minimum funding did not provide a sufficiently dynamic model to cope with demographic changes; the use of a per capita criterion weighted by geographical factors in the calculation of contributions from the Sufficiency Fund was also found to be insufficient as a proxy of services need; instead the introduction of the concept of *equivalent population* was advised. It consists in assigning differential weights to different age groups, to reflect the relative proportion

of, for instance, school-age children or elderly people as a better approach to calculating the actual need for basic public services. As a result of these considerations, a new regional financial scheme was agreed in July 2009 by the Economic and Fiscal Policy Council; the corresponding bills (Organic Law 3/2009 and Law 22/2009) were passed in December 2009 and will be enforced from the 2011 General Budgets.

**Fig. 3.9**

Changes in the share (%) of health budgets over general budget across ACs, 2003–2005



Source: Blanco 2008.

In addition to modifying the per capita criterion (shifting to population adjusted by effective health protected population, population of school-age children and those aged 65 and over, plus the previous geographical factors), the new scheme defines the so-called *fundamental public services* (health, education and social services, including the new SAAD) and makes available leveraging block-grants to guarantee that those ACs in the lower range of income can provide the same amount and quality of these services as those in the higher income brackets. To this end, 80% of the resources transferred are reserved for covering the *fundamental public services* and the remaining 20% will support expenditure for the other matters in which ACs hold competences.

The sources of revenue funding by the new system will be as follows.

- *Taxation.* ACs will increase their fiscal autonomy compared to the previous model; the share of major taxes partly ceded to them will rise to 50% (personal income tax, VAT) and that of taxes on some manufactured products (hydrocarbons, alcohol, tobacco) to 58%.

The assignments stemming from the state's general budgets are structured as follows:

- *Fundamental Public Services Guarantee Fund.* The basis for the calculation of the participation of ACs from this fund are population, extension, dispersion, insularity (as before) plus the *equivalent protected population* (split into three subgroups by age: 0–4 years old, 5–64 and 65 years old and over, with different weights attached), population over 65 years old and population between 0 and 16 years old (school is compulsory up to the age of 16).
- *Global Sufficiency Fund.* This is calculated as before, as the difference between estimated global funding needs for each AC and the sum of taxation revenue and the amount coming from the Guarantee Fund.

The variables will be updated every year and system's validity will be re-assessed every five years. In addition, the system has two convergence funds (Competitiveness Funds and Cooperation Funds), over which the central administration holds more discretion.

## OOP payments

As already mentioned, OOP payments represent some 21% of total health expenditure in Spain. The most relevant component is drug prescription co-payments – described in Section 3.2 *Population coverage and basis for entitlement* – and payments for dental and optical care, which are not included in the benefits package in most of the territory. Voluntary private insurance schemes also contribute to OOPs, but marginally.

According to the latest data from the General Household Budget Survey conducted by the National Institute of Statistics (INE), annual family expenditure on health (excluding compulsory health insurance such as the MUFACE for civil servants) increased from €902 in 2006 to €1000 in 2008; that translates into a slight increase, moving from 2.9% to 3.2% of total household expenses (Table 3.8). Specific spending on drugs and medical appliances has also increased, both in terms of share of the family budget (1.3% in 2008 compared to 1.21% in 2006) and average expenditure, moving upwards to reach €416 per year.

**Table 3.8**

Household global OOP expenditure related to health care and specific pharmaceuticals expenditure

|                                                           | 2006                | 2007               | 2008               |
|-----------------------------------------------------------|---------------------|--------------------|--------------------|
| <b>Total expenditure on health items (€)</b>              | <b>14 303 548.7</b> | <b>15 501 466</b>  | <b>17 138 304</b>  |
| % over household total expenditure                        | 2.94                | 2.98               | 3.21               |
| Average expenditure by household (€)                      | 902.11              | 952.16             | 1 023.71           |
| <b>Total expenditure on drugs and medical devices (€)</b> | <b>5 887 525.7</b>  | <b>6 576 151.6</b> | <b>6 964 861.8</b> |
| % over household total expenditure                        | 1.21                | 1.26               | 1.30               |
| Average expenditure by household (€)                      | 371.32              | 403.93             | 416.03             |

Source: INE 2009o.

Voluntary health insurance (VHI) to cover co-payments is absent from the Spanish insurance market; the small size of these OOP payments probably underpins the lack of success of this type of insurance product, which is so popular elsewhere.

## VHI

VHI in Spain is supplementary and unrelated to the statutory public system of insurance and coverage; essentially it provides coverage for the same goods and services offered by the public sector, but is presumably purchased because it provides faster access, greater consumer choice and improved amenities. Other than the case of civil servants explained earlier, there is no eligibility for substitutive VHI.

About 81% of all VHI policies in Spain are of the “benefits in kind” type; the rest provide sickness compensation or reimbursement of medical expenses – the latter requiring a co-payment. Employer-paid group policies are the minority, representing around 20% of all VHI.

Details of the insurance market are difficult to ascertain, owing to significant problems with information systems and commercial interests linked to the data (substantial pieces of information are only available by purchase from a private research institute, *Investigación Cooperativa entre Entidades Aseguradoras y Fondos de Pensiones*, ICEA). There are some public statistics though, elaborated by the General Directorate of Insurance and Pension Funds in the Ministry of Economy and Treasury. Table 3.9 summarizes the evolution of the insurance market from 2000 to 2006 in terms of total number of individuals insured, total number of premiums and total volume of revenue generated

for the insurance companies from those premiums. The figures suggest an upward trend in terms of number of premiums and insured people until 2005, after which there was a sharp decrease (37% of the number of premiums). The premiums revenue for companies, on the other hand, continued to increase throughout the period.

**Table 3.9**

Indicators of VHI business volume in Spain, 2000–2006

|      | Insured (people) | Premiums  | Total volume<br>in premiums (€) |
|------|------------------|-----------|---------------------------------|
| 2000 | 6 177 073        | 2 631 072 | 2 384 786.959                   |
| 2001 | 6 382 927        | 2 775 798 | 2 611 146.347                   |
| 2002 | 6 784 941        | 2 961 521 | 2 847 231.934                   |
| 2003 | 7 105 255        | 3 157 841 | 3 165 847.392                   |
| 2004 | 8 622 850        | 2 338 218 | 3 456 538.657                   |
| 2005 | 8 570 040        | 4 674 937 | 3 780 588.590                   |
| 2006 | 6 897 454        | 2 924 813 | 4 131 148.635                   |

Source: General Directorate of Insurance and Pension Funds 2006.

Insurance companies (including firms selling health insurance) have a national association, UNESPA. According to UNESPA's annual report 2008 (UNESPA 2008), the health insurance sector registered a 7.7% growth rate in 2008 reaching a volume of €5.825 billion in primes. Data on the number of premiums and insured people in 2008 are not available.

### 3.4 Allocation to purchasers

The previous section has already provided an overview of how funding is pooled and allocated to the regional level in the SNS. Once at this level, third-party budget-setting and split-purchasing functions become blurrier amidst the vertical integration that often characterizes providers. The typical structure of regional health systems was outlined in Chapter 2. It consists of a regional ministry or department of health which is the primary recipient of the health budget allocated by the regional budgetary process and endorsed by the regional parliament. The department allocates the funding, through its policy-making, regulation and planning capacities. In most cases, the regional health service is the main provider and the health department negotiates global annual budgets with the regional service, which in turn negotiates global annual contracts with its integrated providers of primary care, specialized and hospital care, and public health and prevention services. A certain amount of the activity can be

contracted out to private providers, typically in order to reduce waiting lists for surgical procedures or high-technology diagnostic tests.<sup>3</sup> These are generally prospective volume-contracts with some *ex post* correction clauses.

There are a few exceptions, in which the planning, purchase and provision functions have been split to include a third-party network of providers; in these cases, the regional health service acts as a purchaser, contracting out with a network of non-profit-making providers integrated within a network of public providers (for further details, see Chapter 4).

### 3.5 Purchasing and purchaser–provider relations

As explained in Section 3.1 *Health expenditure*, historically most relationships between payers and the service providers in Spain have been integrated, but different contractual forms have been introduced in recent years.

During the second half of the 1990s, the entire system, and in particular the ACs of Andalucía, the Basque Country and Catalonia, initiated pilot testing of more sophisticated prospective payment systems inspired by DRGs or patient management categories with “shadow programme budgeting”. To that end, some institutions (mostly hospitals but also emergency services, etc.) were transformed into public enterprises or foundations, with more space for management, but they still cannot bear financial risk, that is, they cannot carry over a deficit or a surplus, or borrow money.

Hospital funding in the public sector is now generally done prospectively through negotiation of a contract-programme between the hospital and the regional authority third-party payer, which sets out the objectives to be achieved by the hospital and attaches financing to these objectives. The purchaser organizations monitor contracts at intervals agreed upon among the signing parties.

The generalized use of contract-programme schemes for hospital funding has led to the use of a number of indicators – the Minimum Basic Dataset – that should allow risk adjustment in financing, and thus a more equitable allocation of resources. Up to 1997, most hospital contract-programmes were developed through detailed negotiations between the payer and the hospital, and

---

3 Catalonia has already been cited as exception, integrating a majority of non-profit-making private providers in its public network of providers; some other ACs such as Galicia, Madrid, Murcia and Valencia have some *joint-ventures* type experience, with private firms either building and renting out long-term hospital services to the public sector or directly running specialized health care for a certain health area or basic zone.

implemented as a mutually agreed document with specifications for one year. In spite of being structured with very detailed calculations (almost as cost and volume contracts), in reality, contracts essentially functioned as block contracts, with additional “allowances” made available by the purchaser to compensate for the volume of funds expected by the facilities. They were not adequately linked to activity levels or to quality issues; they did not take into account coordination with primary care or existing health care plans; they were not monitored; and real risk decentralization to professionals and managers did not take place. In fact, only weak economic incentives for the accomplishment of contractual objectives were in place. Contracts agreed between the purchaser organizations and provider organizations were in essence shadow contracts, with only limited financial implications.

During the late 1990s, however, important developments took place, incorporating more adequate effectiveness and quality indicators, and trying to link contracts to regional health plans effectively. Contracts were also expanded to psychiatric and other long-term care hospitals, and significant changes along the same lines were introduced in several regions (Basque Country, Catalonia, etc.). The first strategic plan of INSALUD, approved in 1998, involved the inclusion of a plan for quality improvement within contracts, designed with the help of scientific professional associations; it also involved the introduction of a plan coordinator at the level of the hospital and the development of clearer economic incentives linked to achieving quality targets. Around the same time, public hospitals were allowed to have another source of financing, albeit of minor importance, by providing health care services or risk coverage to people or schemes not covered by the SNS.

Hospitals outside the SNS which rely on their own sources of financing (from private health care or from other public administration bodies) may also provide services to the national health service, regulated through agreements or contracts. The economic conditions of these agreements are determined by the regional health departments, depending on the nature of the particular activity. This activity was normally measured in terms of bed-days although, from the mid-1990s, case payment has been introduced. The conditions of the agreements are revised annually and may take the form of a contract-programme with an overall budget. Contracts with private providers tend to be stricter in terms of their repercussions than those signed with public providers. In fact, the role of private contracted-out hospitals has tended to increase since the mid-1990s because of the emphasis on reducing waiting times. The scheme has often included financial compensation for public hospital doctors choosing to work



in the afternoons to shorten waiting lists, as well as the right of patients waiting for more than a given time to choose another public or private contracted-out hospital (see Chapter 6).

Regarding primary care level contracts, the degree of integration between purchasers and providers of these services was even more intense than for hospital services. Thus, the dominant practice has been the replication of the described contract-programme schemes *shadowing* activity and actually working as block-grants to guarantee provision. They normally have an important capitation component (weighted by profile of the population in most of the cases) and reflect specific objectives in terms of priority care programmes introduced (for those who are chronically ill, mothers and babies, etc.), or certain preventive and health promotion activities, and also some incentives linked to the meeting of “rational prescription programmes” targets.

There are a few isolated cases, notably in Catalonia and Valencia, in which primary care for a certain health area or basic health zone has been contracted out to private providers: for example, in the case of Catalonia, to small groups of primary care physicians resembling the old United Kingdom GP fund-holders. In Valencia, it is part of a wider arrangement with health insurance companies that manage both specialized (ambulatory and hospital care) and primary care for the population in a health area (see Section 4.1 *Regulation*).

### 3.6 Payment mechanisms

This section provides an overview of payment mechanisms as per the financial flows shown in Fig. 3.1 p. 76. A distinction is made between the method of paying for health services and the method of paying health care personnel.

#### Paying for health services

Hospitals are normally funded through a global budget, set against individual spending headings. Traditionally, hospital expenditure was retrospectively reimbursed on a routine basis, with no prior negotiation between the third-party payer and providers. Since the early 1990s, however, regional health services have progressively changed the way in which hospital budgets are fixed. The Catalan government pioneered these reforms and other managerial and organizational innovations introduced during the decade, partly due to the prevalence of a hospital sector dominated by private non-profit-making providers, which gave higher priority to sound contracting practices.

From 1991, crude, aggregate measures of activity were defined which enabled comparisons between hospitals, differentiating four hospital production levels. The first aggregate unit defined for use in financing public hospitals was the weighted health care unit (UPA), adapted from the Catalan system (UBA) by the Ministry of Health, for application in the hospitals centrally managed by INSALUD at that point. The UPA was subsequently slightly modified by some regions adapting it to their own system.

The UPA, and similar aggregate units developed from it, are based on converting all hospital activity into multiples or sub-multiples of an activity-based standard (the length of stay) after analysing average costs in each type of hospital service, which mainly depend on hospital technology and equipment. Particularly sophisticated activities (e.g. transplants), expensive activities (e.g. dialysis) or activities which are regarded as priority interventions because of the length of waiting lists (e.g. major outpatient surgery) remain outside the general UPA rate and have their financing calculated separately. UPAs have worked both as production measures (a kind of basic billing unit) and as proxies for global activity measures (aggregating weighted intermediate products; see Table 3.10), providing the basis for comparison of productivity over time and across centres. The trend has evolved from these *first-generation* measures to a DRG-like system. Although the use of DRGs for analytic and evaluative purposes is quite developed, DRGs are far from being generalized as contract metrics.

As mentioned above, the new generation of contracts, often called contract-programmes, introduce some quality elements aligned with the objectives of regional quality strategies, typically waiting list reduction programmes, extension of day-surgery approaches, and so on. In essence, they define the benefits package, outline the objectives of quality, quantity and activity, and determine financing related to specific activities at the hospital. However, the degree of sophistication is quite uneven across ACs.

Contract-programmes are also extended at primary care level, following the same benefits package-based approach. Typically, the primary care management structure of the health area signs an annual contract-programme with the regional health service, based on capitation criteria (in many cases with some ingredient of demographic structure and dispersion of population) and including as production lines the different health programmes. This contract's specifications cascade down, translating into contracts with the PCT in each basic health zone. It is a negotiated process, setting objectives and standards of care; for example, it has been the main vehicle in implementing rational drugs use programmes and in fostering generic drugs prescription.

**Table 3.10**

UPA-type weighting health care units for hospital contracts

| Intermediate product         | UBA  | UPA  | EVA   | UCA  | UMA  |
|------------------------------|------|------|-------|------|------|
| Hospital stay                | 1.00 | –    | –     | 1.00 | 1.00 |
| Medical                      | –    | 1.00 | 1.00  | –    | –    |
| Surgical                     | –    | 1.50 | 1.00  | –    | –    |
| Obstetrics                   | –    | 1.20 | 1.20  | –    | –    |
| Paediatrics                  | –    | 1.30 | 1.30  | –    | –    |
| Neonatology                  | –    | 1.30 | 1.30  | –    | –    |
| Intensive care unit          | –    | 5.80 | 5.80  | –    | –    |
| Surgery with hospitalization | –    | 5.00 | 2.00  | –    | –    |
| Ambulatory surgery           | 0.50 | 0.25 | 0.25  | 0.75 | 1.00 |
| Outpatient consultation      |      |      |       |      |      |
| First                        | 0.50 | 0.25 | 0.25  | 0.40 | 0.40 |
| Follow-up                    | 0.25 | 0.15 | 0.15  | 0.20 | 0.20 |
| Emergencies                  | 0.40 | 0.30 | 0.30  | 0.40 | 0.50 |
| Dialysis                     | –    | –    | –     | 1.28 | –    |
| Rehabilitation (session)     | –    | –    | –     | 0.10 | –    |
| Day hospital                 | –    | –    | 10.00 | –    | –    |
|                              | –    | –    | –     | –    | –    |

Source: Repullo & Iñesta 2006.

Notes: UBA (Catalonia), UPA (INSALUD), EVA (Andalucía), UCA (Basque Country), UMA (Valencia).

## Paying health care personnel

All health professionals in the SNS are salaried workers and a huge proportion of them have a special civil servant status (statutory staff), although this proportion has been decreasing over the years and most of the new contracts are more flexible. No extra billing by health care personnel to generate income within the public sector is permitted anywhere in Spain.

The most common formula for family doctors (GPs) includes salary plus a capitation component (amounting to about 15% of the total), which takes into account the nature of the population registered with them, its density and the percentage of the population over 65 years of age. An additional adjustment for the socioeconomic conditions of the population served is also used in Catalonia.

Regarding hospital doctors and specialists in ambulatory settings, the basic salary for statutory staff is regulated by the national government, although the regions have the capacity to vary some of the components which make up the total salary. The salaries of physicians who work for hospital foundations or other forms of public companies under private labour law are formally regulated by the market. There is considerable variation among ACs both in the type and amount of salary supplements applied. Table 3.11 shows the national annual average salary for nurses and doctors in specialist and primary health care

settings; data covers the period between 1999 and 2004<sup>4</sup> and also presents some measures of variability across regions. Overall annual salaries have been increasing for all professionals during the observed period at an average annual rate close to 6% per year for nurses in both settings and primary health care doctors, and close to 4% for specialists.

Differences in salaries across ACs have widened over the years for primary health care nurses and specialists, registering increasing coefficients of variation; hospital nurses and primary health care doctors' salaries, on the other hand, showed a moderate converging trend across regions, showing decreasing coefficients of variation over the period observed.

In 2004, the average annual salary in the country was €18 260, with an average of 1.52 salaries per household, while the legal minimum salary was only slightly higher than €6870. According to the most recent study available (Hidalgo & Matas 2004), the annual salary of physicians ranged from €33 448.54 to €68 573.02 (that is, from two to four times higher than the average annual salary). Table 3.12 shows the different ranges of salary for public hospitals and primary health care doctors depending on the type of contract.

It should be noted that in addition to this general scheme, more precarious forms of part-time and day contracts to cover shortages or emergency services are also in place in the SNS.

Other categories of health care professionals are also paid by salary. This applies to physiotherapists, social workers and public health professionals (both specialists in public health trained as doctors and other public health professionals), but no updated figures of their income are available. Public employee pharmacists in both primary health care and hospitals are salaried whereas dispensing pharmacists owning a pharmacy are private entrepreneurs (though they may employ other pharmacists as their salaried staff; see *Pharmacists* in Section 5.2 *Human resources* and Section 6.6 *Pharmaceutical care*).

Managerial staff are in essence salaried; however, they often hold a specific kind of contract, the “*contrato de alta dirección*” (high executives' contract), regulated to allow risk transference through a higher degree of discretion regarding bonuses and penalties linked to results; these contracts are regulated under a different regime and can be terminated at any time, normally subject to political decisions.

---

4 Although such information is classified as public, these figures are not regularly reported and are calculated by thorough research on different databases, complemented with ad hoc data collection. A research project is currently compiling new data aimed to update this analysis; unfortunately, figures were not available at the time of writing.

**Table 3.11**  
Selected health professionals' annual salaries and variation across ACs, 1999–2004

|                                   | Average annual salary (€) |        |        |        | Percentage annual variation in salaries |        |      |      | Average annual rate 99/04 |      |      |      |
|-----------------------------------|---------------------------|--------|--------|--------|-----------------------------------------|--------|------|------|---------------------------|------|------|------|
|                                   | 1999                      | 2000   | 2001   | 2002   | 2003                                    | 2004   | 2000 | 2001 |                           | 2002 | 2003 | 2004 |
| <b>PHC nurse</b>                  |                           |        |        |        |                                         |        |      |      |                           |      |      |      |
| National average salary           | 18 893                    | 19 465 | 20 127 | 21 626 | 23 374                                  | 25 028 | 3.03 | 3.40 | 7.45                      | 8.08 | 7.08 | 5.79 |
| Typical deviation                 | 744                       | 805    | 821    | 1 451  | 1 485                                   | 1 633  |      |      |                           |      |      |      |
| Inter-AC coefficient of variation | 3.94                      | 4.13   | 4.08   | 6.71   | 6.36                                    | 6.52   |      |      |                           |      |      |      |
| <b>Hospital nurse</b>             |                           |        |        |        |                                         |        |      |      |                           |      |      |      |
| National average salary           | 18 138                    | 18 840 | 19 701 | 21 305 | 22 708                                  | 24 233 | 3.87 | 4.57 | 8.14                      | 6.58 | 6.72 | 5.97 |
| Typical deviation                 | 1 576                     | 1 510  | 1 465  | 1 337  | 1 411                                   | 1 495  |      |      |                           |      |      |      |
| Coefficient of variation          | 8.69                      | 8.01   | 7.44   | 6.27   | 6.21                                    | 6.17   |      |      |                           |      |      |      |
| <b>PHC doctor</b>                 |                           |        |        |        |                                         |        |      |      |                           |      |      |      |
| National average salary           | 31 602                    | 32 937 | 34 606 | 36 637 | 39 031                                  | 41 248 | 4.23 | 5.07 | 5.87                      | 6.53 | 5.68 | 5.47 |
| Typical deviation                 | 3 451                     | 2 495  | 1 685  | 2 230  | 3 375                                   | 4 014  |      |      |                           |      |      |      |
| Coefficient of variation          | 10.92                     | 7.57   | 4.87   | 6.09   | 8.65                                    | 9.73   |      |      |                           |      |      |      |
| <b>Specialist doctor</b>          |                           |        |        |        |                                         |        |      |      |                           |      |      |      |
| National average salary           | 33 048                    | 33 728 | 34 503 | 35 785 | 37 962                                  | 40 113 | 2.06 | 2.30 | 3.71                      | 6.09 | 5.67 | 3.95 |
| Typical deviation                 | 2 026                     | 2 178  | 2 253  | 2 141  | 3 013                                   | 2 987  |      |      |                           |      |      |      |
| Coefficient of Variation          | 6.13                      | 6.46   | 6.53   | 5.98   | 7.94                                    | 7.45   |      |      |                           |      |      |      |

Source: Health Expenditure Analysis Taskforce 2007.

Note: PHC: Primary health care.

**Table 3.12**

Public hospital doctors' and primary health care doctors' annual salaries (€) by type of dedication and contract

|         | "Civil servant" (1) no exclusive dedication (2)/"on duty" hours |           | "Civil servant"(1) exclusive dedication (2) and 50 "on duty" hours |           | Stand-in (3) doctor with exclusive dedication (2) and 50 "on duty" hours |           |
|---------|-----------------------------------------------------------------|-----------|--------------------------------------------------------------------|-----------|--------------------------------------------------------------------------|-----------|
|         | Hospital                                                        | PHC       | Hospital                                                           | PHC       | Hospital                                                                 | PHC       |
| Average | 38 338.39                                                       | 39 733.59 | 56 881.27                                                          | 53 653.98 | 51 661.34                                                                | 48 434.03 |
| Maximum | 47 845.78                                                       | 49 450.39 | 68 573.02                                                          | 62 509.54 | 60 877.00                                                                | 55 293.97 |
| Minimum | 33 448.54                                                       | 34 095.82 | 50 565.94                                                          | 48 232.70 | 44 517.88                                                                | 37 858.28 |

Source: Hidalgo & Matas 2004.

Notes: PHC: public health care. (1) The status of most public health professionals is analogous to that of civil servants. However, they are not formally civil servants. (2) Exclusive dedication means that the professional's terms of reference do not allow private practice out of working hours in the public sector, receiving a compensation for that. (3) Stand-in doctors have temporary contracts until a civil servant occupies that position.

Rates and methods of payment are determined by payer dictation, sometimes supplemented by bilateral negotiation. The payment system for hospital professionals is very controversial at present and seems to fail to satisfy both the system's payers and the physicians. It is believed that financial and non-financial incentives in place for health care professionals in secondary care institutions do not clearly reward efficient activity or improve quality and health outcomes, something which is related to the civil servant status and tenure of jobs for life in the public sector. The experience with linking financial incentives to the meeting of objectives has not been particularly effective. This may be due to the fact that the rewards available for meeting efficiency targets only constitute a very small percentage of the physician's overall salary. In addition, mechanisms for evaluating health care delivery are still very rudimentary and the measures geared to assess efficiency have proved difficult to apply. Formulas for satisfactory supplementary payments are still to be developed.

## 4. Regulation and planning

### 4.1 Regulation

Chapter 2 has already described many key regulatory arrangements in Spain from the organizational perspective (e.g. the relationship between the public and the private sector, the respective roles of the central and regional governments, population coverage, entitlements and benefits, patients' rights, etc.). This section will now review some additional regulatory aspects and elaborate further on a number of issues already outlined in the preceding sections.

Regional governments usually have their functions regarding health divided between a health authority, that is, the regional health ministry or health department (*Consejería de Salud*) and the regional health service. Normally, apart from being the health authority, the health department is responsible for regulation and strategic planning (including health care planning) while the regional health service is responsible for operational planning, management of the services network and coordination of health care provision. A previously integrated formula (authority, planners, purchasers and providers being part of the same organization) gave way to this split in the early 1990s, when the need to introduce *market-simulation* elements to achieve efficiency in highly integrated public health care systems became “common wisdom”. In this same spirit, regional health services have adopted a variety of legal statutes in an attempt to gain flexibility and autonomy, making the provider role more credible; thus 11 regional health services have taken on the form of “administrative autonomous body”; another 5 have adopted the form of “public entities” and the remaining 1 is a “regional public corporation”.

In reality, however, “purchasing” decisions are closely related to the running of the existing facilities and staff. Obviously, the consequences of letting one of these providers fall out of the market are unbearable for any health administration accountable for maintaining access to care and obliged to find an immediate replacement (quite unlikely, given the huge costs for newcomers

to enter the market and the lack of existing alternatives, whether private profit-making or not, in most of the territory). Thus, the actual approach in this split of functions is mainly modernization of managerial formulas within the SNS to enhance flexibility, rather than the introduction of market elements. In this sense, a positive consequence can be pointed out, neatly derived from the progressive introduction of an evaluative culture that the system lacked before. The link between budget and activity has been stressed, with the aim of enhancing efficient use of resources, and thus output measurement has become routine practice, although outcome and costs measurement are still lagging behind. Nevertheless, the current speeded-up progress in refining and standardizing information systems (see Section 4.2 *Planning and health information management*) is starting to boost meaningful benchmarking and outcome assessment is gaining some momentum.

The basic tool mediating the relationship between the health department and the regional health service is the *contract-programme*, already described in Chapter 3. Basically, the contract sets the objectives (derived from the regional health plan and the regional strategic plan),<sup>1</sup> the budget and the evaluation system. It is negotiated every year, forcing both parties to reflect on what they produce and how; this exercise should ground strategic thinking on performance improvement. Beyond the rhetoric, evidence of that effect is hard to detect, partly because of the continuing relative weakness of information systems and the well-known resistance to change of organizations and individuals.

As mentioned in Chapter 3, each regional health department has drawn up a *health care map* stipulating administrative territorial subdivisions (health areas and zones), which often do not correspond with municipalities or other political-administrative landmarks.<sup>2</sup> These basic units are conceived as the cornerstone of the managerial structure, building up the organization of the regional health system. In fact, they were already set before the completion of the devolution of health competences; however, most regional health authorities have reshaped their health care maps to match demographic changes and other local needs. According to the 1986 Health Care General Act, *health areas* are

---

1 Set out by the regional health department, these plans are normally renewed every four or five years.

2 Generally, health maps do not include, or necessarily overlap with social services maps, which in most cases depend upon a different regional administration (with the notable exception of Catalonia; see: Generalitat de Catalunya, Departament de Salut 2007). Nevertheless, in most cases, social workers are part of the staff both in PCTs and hospitals and some long- to medium-term care facilities are included in the health care provision structure, exemplifying the presence of “*paradoxical*” split while overlapping of health and social services administrations.



defined accounting for geography, socioeconomic standards, demography, employment, epidemiological factors, cultural concerns, transportation and health facilities available; each area should cover a population of no less than 200 000 inhabitants and no more than 250 000.

The following services are provided in the health areas:

- primary health care: defined as care for individuals, families and the community at large through programmes including health promotion, prevention, curative care and rehabilitation; and
- specialized (outpatient and inpatient) care: each health area is linked to, or served by, at least one general hospital. Specialized ambulatory care is provided through a public network of community polyclinics (*centros de especialidades*), integrated with hospitals, and in most cases staffed by the same teams (with members rotating to cover visits at the polyclinics).

Usually, two managerial structures coexist in each area, one in charge of primary care and the other dealing with specialized care. This two-tiered structure was intended to give primary care a new status and relevance, as required by the political reform in the 1990s, and to counterbalance the traditional power and influence of hospitals in the health services structure (see Chapter 2 for an explanation of the historical development of both networks). Managerial teams, both primary and specialized, are appointed by and accountable to the regional health service; their specific organizational arrangements depend on the region. This two-headed approach has created a fair amount of issues in terms of coordination of care; its role in disrupting continuity of care has been part of the expert debate for the last two decades (SESPAS 2008). Initiatives to improve continuity of care have multiplied over the years, adopting the form of clinical paths and coordination protocols (Andalucía can be cited as a prolific example). However, the underlying rivalry between the two levels of care and the organizational barriers set by different management priorities have rendered all these initiatives hard to implement and evidence about outcomes is still scarce. Several ACs have initiated innovations shifting to integrated area management schemes; this is still not the most frequent arrangement, and even in those regions (Andalucía, Aragón, the Balearic Islands, Canary Islands, Catalonia, Galicia, Navarra) integrated area schemes remain at a pilot scale; nonetheless, progress in that direction seems to be gaining momentum across the SNS.

A further subdivision of the territory is contemplated; *basic health zones* are the smallest units of organization. Each is defined in accordance with the degree of concentration of the population, the epidemiological characteristics and the facilities and health resources in the area. The criteria used in defining them is standard travelling time – set as maximum of 30 minutes away from the location of services; therefore the range of variation in population covered per basic health zone is wide: between 5 000 and 25 000 inhabitants. They are usually organized around a single PCT, which is also the main management unit of the zone, coordinating prevention, promotion, treatment and community care activities. The director of the PCT (usually a medical doctor who continues his/her clinical work) generally reports to the primary care area manager.

### Regulation and governance of third-party payers

In the structure just described, there is not much room for third-party payers. Nevertheless, two ACs – Catalonia and Madrid – have explicitly regulated for the existence of a third-party payer in charge of purchasing services in their territory.

In Catalonia, the Health Department (*Departament de Salut*) is in charge of financing, planning and monitoring health services; the Regional Health Service (*CatSalud*) is the purchaser and provision is made through the Catalan Hospital Network of Public Utilization (XHUP). This Network includes both public and private providers (the historical justification for this peculiarity was provided in Chapter 2), some of which are directly under the management of a separate organization within the regional government (*Institut Català de Salut* (Catalan Institute of Health), ICS). However, the majority comprises a variety of providers, including consortiums and municipal associations, public corporations, private foundations, workers' mutualities, religious charities, private firms and professional associations/cooperatives constituted to manage PCTs (*Entitats de Base Associativa*, associative-based entities/EBAs) (see further details in the next subsection *Regulation and governance of providers*).

The model in Madrid differs slightly. The Regional Health Service (SERMAS) is the purchaser in charge of shaping and allocating the health care budget, while the Health Department (*Consejería de Salud*) is responsible for the health authority and planning functions. The main difference from the Catalan model is that SERMAS itself is also the main provider. Nevertheless, besides a long-standing concession to the international health care corporation that manages the Hospital de la Concepción (originally a private foundation) for the provision of specialized care in one of the basic areas, SERMAS has recently

embarked on some private sector partnerships. Most of this innovation is linked to eight new hospitals built with the participation of private initiative (the exact formula is administrative concession for building and management of public services), staffed by SERMAS and owned and managed by the companies who rent them out for public use (see next subsection *Regulation and governance of providers*).

The third-party role of SERMAS might be reinforced with the adoption of the *single area*. As outlined in Chapter 2, Madrid is about to collapse the current health care map, with its 11 health care areas, into a single area covering more than 6 million people. The aim is the full achievement of patient choice as regulated in Law 6/2009, 16 November, on the freedom of choice in health care in the Autonomous Community of Madrid, opening the way for patients to pick the centre or professional of their choice among the public providers and eventually, depending on factors such as waiting lists for certain procedures or specialist's visits, they would also be covered to go to private providers.<sup>3</sup> This project has aroused some controversy; it is unclear how this freedom of choice would work with the existing gatekeeping function of family doctors in the system. On the other hand, some experts (Repullo 2009) question the need to eliminate territorial management structures in order to achieve free choice of providers for patients; instead, these experts stress the potential for expanding the share of profit-seeking private providers as the real driving force of the reform. In any case, should the project of single area be implemented, the role of SERMAS as a third-party payer would probably be strengthened. It is worth recalling that voluntary private insurance purchasing in Madrid is quite well above the national average – more than 20% of the population – and the concentration of profit-making private providers is quite high compared to other parts of the country. This measure could provide a further stimulus for activity in this sector.

### **Regulation and governance of providers**

As detailed above, most of the providers of the SNS are within the public sector and the predominant governance model still has many elements of direct management inherited from the original integrated structure. The main

---

3 This change in organization requires the approval of two draft decrees currently under discussion at the regional parliament. Both are intended to develop the framework set by the mentioned Law 6/2009. One of the draft decrees regulates the mechanics for exercising freedom of choice and the other sets the basic management structures for primary care under the new single area scheme (Comunidad de Madrid 2009, 2010).

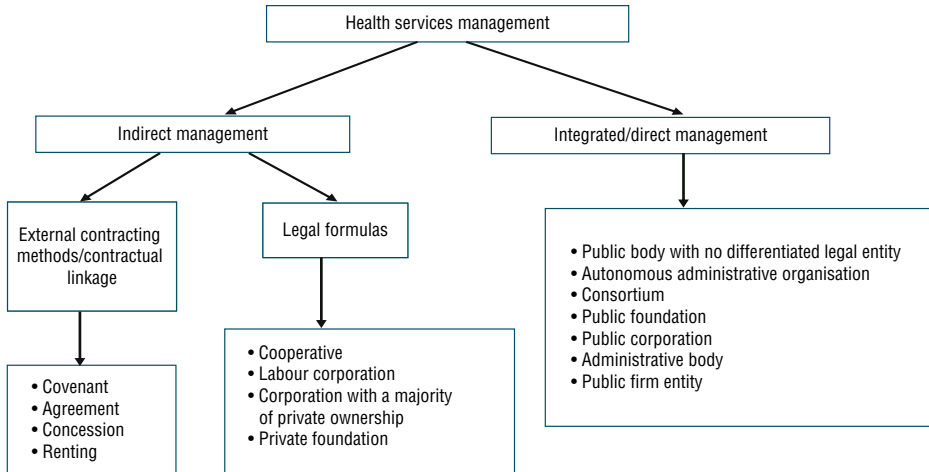
tool of this model is also the contract-programme described earlier in this section and in Chapter 3. The contract-programme signed between the health department and the regional health service every year cascades down the managerial structures: each primary care area and specialized care area management team will negotiate their specific contract-programme with the regional health service and, in turn, will negotiate one each with the PCTs and hospital management in the area. Obviously, the objectives, budget and evaluation system of these contracts originate in the mentioned annual contract-programme negotiated between the regional health service and the regional health department. Indeed, the vast majority of final providers of care are part of the regional health service structure and are not autonomous legal entities. Thus, the contract-programme works as a tool of management by objectives, incorporating incentives to reinforce certain strategic lines. There is no stated penalty for failure to achieve objectives, nor any real risk-transfer to the providers; nevertheless, intervention is warranted to identify the reasons behind underperformance and eventually correct them. Some positive financial incentives derived from the accomplishment of certain strategic goals (for example, rational prescription, use of generic drugs, reduction of waiting times for certain procedures, etc.) are at stake for teams, and eventually for individual professionals, even so they are always marginal to the bulk of remuneration.

Besides this prevailing model, as shown in Fig. 4.1, there are some other forms of provider governance where providers are still under direct management but have a legal personality that is separate from the regional health service.<sup>4</sup> Fig. 4.1 also recapitulates the different legal formulas available. All these direct management formulas can be placed on a gradient based on the regimes of contracts, staff and budget; at one extreme would be the strict constraints imposed by the public administration law, while the other end of the range corresponds to frameworks resembling private firms that are subject to private law (although the property may remain public and the mission of the organization is still public service). The relaxation of the straitjacket of public law and the move into private law may affect some or all of these three elements, presenting regional governments with a whole range of formulas to choose from. Table 4.1 summarizes the main features of the existing direct management formulas.

---

4 Many of them came as “brand new” formulas derived from the Organic Law for new management formulas in public administration (6/97 LOFAGE), approved in 1997.

**Fig. 4.1**  
Health care organizations' governance models in Spain



Source: Martín Martín 2003.

The consortium formula has been widely used in Catalonia (though not exclusively there) as a legal mechanism to pull together different administrations that already provide a service (mainly hospital care) to a certain population of reference, or that own the structures required to provide it, in order to do so more effectively. Some examples are the *Consortori Hospitalari de Vic*, *Consortori Sanitari Hospitals de Barcelona* or *Corporació de Salut del Maresme i la Selva*, all of them in Catalonia.

Public foundations constitute a particular variant of these direct management formulas established under the 30/1994 Act on foundations and tax incentives for private participation in general interest activities. Hospital foundations are entities with their own legal status, which are run by a board supervised by the public health authorities (the same bodies that contract their services and thus decide on their income). Some hospitals in the Balearic Islands, Galicia and Madrid have taken this form. It is worth noting that this formula has been applied in order to launch new hospitals rather than for existing institutions to make the shift.

**Table 4.1**  
Formulas for providers under direct management in the SNS

|                               | Public body with no differentiated legal entity                                          | Autonomous administrative organization                                                                                                                                                                                                                             | Public entity                                                                                                                                                                        | Consortium                                                                                                                                                                                                                                       | Public foundation                                                                                                                                                                                                                                                                                                | Public corporation                                                                     | Autonomous body                                                                                                                                                                                                                               | Public firm entity                                                                               |
|-------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Basic legislation</b>      | Organic Law 6/1997 LOFAGE<br>Regional bills                                              | AC statutes<br>Regional bills                                                                                                                                                                                                                                      | Corresponding creation Act<br>Regional bills                                                                                                                                         | Local regime services regulation and basic local regime bill 781/1986<br>Regional bills                                                                                                                                                          | Foundations Law 30/1994<br>Royal decree 316/1996<br>Foundations bill 50/2002<br>Fiscal regime for non-profit-making entities and sponsorship fiscal incentives bill                                                                                                                                              | State patrimony bill<br>Law 2/1995 on limited liability societies and trade regulation | Law 6/1997 LOFAGE                                                                                                                                                                                                                             | Law 6/1997 LOFAGE                                                                                |
| <b>Definition</b>             | Territorially defined body providing public services with no differentiated legal entity | Entity subject to public law, created by law, with independent legal personality and patrimony, acting in a regime of administrative decentralization to organize and manage a public service and the funds, activities and assets ascribed to such public service | Entity with public personality and patrimony, but subject to private law regarding the management of its resources, created to provide a public service or to exert public authority | Entity with independent legal personality and patrimony, created by association of a number of public bodies at different levels of the administration; local regulation allows for the participation of non-profit-making private organizations | Organizations aimed at serving the public interest and not seeking profit; founded by natural or legal persons, private or public, they have an independent legal personality separate from their founders. The foundation's patrimony funds public services and may not be distributed to the founders' benefit | Corporation where the main shareholder is the public administration                    | Body subject to administrative law appointed to carry out activities of production, enhancement or management of public services in a regime of functional decentralization to develop specific programmes pertaining to ministerial activity | Public body providing or managing services, or producing public goods in return for compensation |
| <b>Legal regime</b>           | Public law                                                                               | Public law                                                                                                                                                                                                                                                         | Public and private law                                                                                                                                                               | Public and private law                                                                                                                                                                                                                           | Public and private law                                                                                                                                                                                                                                                                                           | Private law (trade, civil and labour)                                                  | Public law                                                                                                                                                                                                                                    | Public and private law                                                                           |
| <b>Constitution procedure</b> | Royal Decree or order, depending on the level of the body                                | Creation Act and decree for approval of statutes                                                                                                                                                                                                                   | Creation Act                                                                                                                                                                         | Royal Decree or order                                                                                                                                                                                                                            | Bill, Royal Decree or order depending on its nature                                                                                                                                                                                                                                                              | Ministers council resolution                                                           | Creation Act and decree for approval of statutes                                                                                                                                                                                              | Creation Act and decree for approval of statutes                                                 |

|                        | Public body with no differentiated legal entity                                                                              | Autonomous administrative organization                                                                                       | Public entity                                                                                                                                                                                         | Consortium                                                        | Public foundation                                                                                                | Public corporation                                               | Autonomous body                              | Public firm entity                                                                         |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>Directive body</b>  | Appointed by hierarchical superior                                                                                           | According to Creation Act, president/director appointed by decree. Board of directors                                        | According to Creation Act<br>President or director appointed by decree.<br>Board of directors                                                                                                         | General meeting or Governing board                                | Board of founders                                                                                                | Board of directors                                               | According to statutes                        | According to statutes                                                                      |
| <b>Patrimony</b>       | No patrimony                                                                                                                 | Its own or transferred                                                                                                       | Its own, transferred or both                                                                                                                                                                          | Its own, transferred or both                                      | Its own, transferred or both                                                                                     | Its own, transferred or both                                     | Its own, ascribed or both                    | Its own, ascribed or both                                                                  |
| <b>Contract regime</b> | Public administrations' contracts regulation                                                                                 | Public administrations' contracts regulation                                                                                 | Public administrations' contracts regulation                                                                                                                                                          | Private law. Obligated to principles of publicity and concurrence | Private law, with a ceiling for the amount in work and service contracts                                         | Private law                                                      | Public administrations' contracts regulation | Public administrations' contracts regulation                                               |
| <b>Staff regime</b>    | Civil servant or statutory staff<br>General labour law contracts for certain new appointments either permanent or fixed-term | Civil servant or statutory staff<br>General labour law contracts for certain new appointments either permanent or fixed-term | General labour law contracts<br>Exceptionally civil servants depending on the Creation Act                                                                                                            | Civil servant/statutory/general labour law contracts              | General labour law contracts                                                                                     | General labour law contracts                                     | Civil servants/general labour law contracts  | General labour law contracts<br>Exceptionally civil servants depending on the Creation Act |
| <b>Examples</b>        | Agencia de ETS andaluza,<br>Servicio valenciano de salud,<br>Unidades clínicas                                               | Servicio andaluz de salud,<br>Servicio navarro de salud,<br>Servicio gallego de salud...                                     | Servei català de salut,<br>Servicio vasco de salud (Osakidetza),<br>Hospital Costa del Sol, Empresa pública de emergencias sanitarias, Hospital de Poniente, de Andújar, de Pallars, de Mora, de Ebre | Vic. Parc Taulí, Hospitals de Barcelona, Mataró                   | Hospital Verín, Manacor, Alcorcón, Cee, Barbanza de Ribeira, Villagarcía de Arosa, Centro Gallego de Transfusión | Hospital San Jaime de Calella, Escuela Andaluza de Salud Pública | Spanish Drugs Agency                         | None                                                                                       |

Source: Martín Martín 2003.

Some other organizational innovations have come about in recent years aimed at enhancing care quality and fostering health professionals' involvement in decision-making. Several clinical institutes (grouping together different services subject to internal coordination) and clinical units have been created. They have generated an ample catalogue of experiences in delegating different forms and ranges of power to clinical groups. Examples of clinical institutes are the Cardiovascular Institute of the Ramón y Cajal Hospital in Madrid, the Oncology Institute of the Virgen Arrixaca Hospital in Murcia and the Heart Institute of Hospital Juan Canalejo in Coruña, Galicia. Virgen del Rocío Hospital in Andalucía has been totally reorganized into clinical departments or institutes following a clinical management logic.

Regarding the formulas of indirect management, in most of the ACs contracting out is confined to the provision of complementary diagnostic tests and ambulatory procedures, and to ancillary services such as hospital catering, laundry, maintenance, cleaning and security. In fact, the outsourcing of auxiliary services to private companies has become quite an extended practice, to the point that integrated provision is being abandoned in most of the system. These contracts, subject to public tendering, usually take the form of concession to a private firm of the management and provision of such specific services within public premises using their own means. The public administration holds the right of inspection to monitor the conditions of service provision. The duration of the concession may vary, but generally exceeds a one-year period.

On the other hand, when it comes to clinical services, the most common contracting methods are covenants or agreements for provision of very specific diagnostic or surgical services with private providers.<sup>5</sup> The providers can present any of the legal formulas listed in Fig. 4.1 under the heading *indirect management*. Once this type of arrangement is in place, the patient in need of the service is identified by health professionals in the regional health service structure; patients can be referred to the private provider (normally depending on priority or relative simplicity of their condition) who delivers the intervention and sends the patient back to the system. These providers are generally paid on a “fee-for-service” basis; a minimum threshold for volume of cases can be set in the contract based on estimated need; rates for this agreed package may entail different fees, which are negotiated in advance. This contracting out is often related to the reduction of waiting lists; however, in some cases it can be

---

5 Another typical case is the contracting out of medium- and long-stay services to non-profit-making private institutions (often owned by religious orders). These services normally involve dependent elderly patients and chronic psychiatric patients. These contracts often constitute a support for regional health services in coping with the scarcity of resources of these sorts within the SNS.



linked to the decision to buy high-technology services for a certain population from an already established private provider rather than bearing the costs of installing the new equipment.

Two of the legal formulas that providers can adopt under the indirect management model deserve some further description due to their peculiar nature. The first is the *Entitats de Base Associativa* (EBAs); they were introduced in Catalonia in the 1990s in experimenting with the GP-fundholders model. An EBA is a group of primary care professionals constituted as an enterprise with its own legal personality. EBAs contract with the regional health service to manage a basic health zone, becoming the PCT of reference. They may be also given a budget for purchasing intermediate products and for outpatient consultations. This contract introduces explicit financial co-responsibility mechanisms.

The second legal formula has given rise to the most radically new (and also most controversial) experiences in the organization of care provision; it is the administrative concession to a corporation or a temporary union of enterprises for the provision of care to an entire basic health area. The model was first introduced in the Alzira area in Valencia. In 1999, the regional government granted a concession for hospital care provision in Alzira to a temporary union of companies led by a private insurer, Adeslas; the contract was established for a 10-year period in exchange for the building of the local hospital La Rivera. Payments to the concessionaire are made on a per capita basis. However, the original concession ended in 2003; the profitability of the formula was under question and finally the concessionaire, UTE Ribera Salud, was reimbursed by the regional administration for the initial investment in running the hospital, plus compensation for the six-year benefit forgone because of the early termination of the contract. A new concession replaced the previous deal, increasing the per capita payment and expanding in scope to include primary and ambulatory care; thus, virtually all publicly funded health care in Alzira is to be provided by the concessionaire. The contract was assigned to the same group, this time with a foreseen duration of 15 years, until 2018. Theoretically, citizens have the possibility to choose where they will be treated; thus, if an Alzira protected patient decides to seek care outside the integrated area, the concessionaire should reimburse the alternative provider with 100% of the average cost of DRG. If the situation reversed, that is, a patient from another area chooses Alzira services, the concessionaire would be reimbursed 80% of the average cost of DRG by the regional health service.

The main source of controversy is whether there are enough efficiency gains to offset the costs, which must include the companies' profit (or compensate them for income lost), the transaction and monitoring costs derived from follow-up, and quality and equity concerns. The Valencia Health Service (SVS) pioneered and advocated this model as a way to obtain needed health care structure (a new hospital) without compromising the regional budget (the classic private finance initiative (PFI) argument). Critics have argued that costs have in fact escalated (though spread out over time, putting a 20-year mortgage on Valencia health budgets) with no demonstrable outcome benefit for the population served. Nevertheless, the model has been extended within Valencia, with four other administrative concessions already running in Torrevieja (2006) and Denia, Manises and Eix-Crevillente (2009). Overall, about 16% of Valencia's population is served under this model. Madrid has also adopted the formula for one of the eight new hospitals<sup>6</sup> (Valdemoro) and the four additional planned hospitals, all included in its *General health infrastructures plan 2007–2011*. The “administrative concession” has actually become the “flagship” of health policy for conservative regional governments. Unfortunately, the debate about the pros and cons of the formula has suffered from too much partisan struggle and propaganda, and too little data and rigorous comparative assessment. Indeed, the recent parliamentary call to carry out an independent expert assessment of the functioning and impact of these innovations in the SNS is a welcome development, and will hopefully shed some light on the issue.

### Regulation and governance of the purchasing process

As outlined in the sections above, the purchasing process in the SNS is overwhelmingly framed within the described contract-programme, with public providers subject to different direct management modalities. As the system matured, new contract-programmes came to include far more specific clauses prescribing the nature and quality of services and assessment procedures.

Regarding contracting with legally independent providers (those detailed under the indirect management category in the previous section), the regional ministry of health/health department sets an overall budget and issues guidelines to be followed by the regional health services (or the INGESA in the case of the two Spanish autonomous cities located in the African continent), which have delegated powers for using those pre-established resources. Thus, in most

---

6 The other seven new hospitals were also built under PFI schemes, but health care management is run by a public enterprise and the staff regime comprises a mix of statutory and general labour law contracts. Some other examples of this formula can be found in Catalonia, Castilla-León and the Balearic Islands.

cases, the regional health services or INGESA are the actual counterpart in contracting services from those providers. There is an enormous degree of variation in contractual details. These agreements may be of either one-off or ongoing nature. In the latter case, specifications should allow for ensuring both financial viability and the possibility of mid-term investments necessary to ensure a technological fit with the purchasers' needs.

## Regulating quality of care

The SNS Cohesion and Quality Act clearly sets out the basis for establishing a national framework to monitor and improve quality across the country. Chapter 2 has already covered the role of the National Agency for Quality of the SNS in promoting quality standards through its Quality and Planning Office for the SNS and by acting as the secretariat of the CISNS for the implementation of the National Quality Plan. Originating in the second Conference of Regional Presidents and supported by specific funding, this Plan has become the main tool for setting and disseminating quality norms and standards of practice, indicators, clinical guidelines, best practice registries and adverse events registries. Emanating from the CISNS, its governance reproduces the same consensus-building approach, with active participation and voluntary endorsement by ACs, that characterizes that governing body. The Plan, in place since 2005, is articulated around four axes:

1. *National health strategies.*<sup>7</sup> These are aimed at improving care for patients with prevalent diseases which entail a high social burden. Nine national strategies are already in place, approved by the CISNS; they cover diseases such as cancer, ischaemic disease, diabetes, rare diseases, COPD, stroke, or specific services such as palliative care and mental health services. Three more strategic actions are expected to be launched by the end of 2010 (diseases of the musculoskeletal system, pain management and chronic patients). These strategies are to be assessed periodically and contain a set of indicators of both good practice and implementation against which they will be evaluated.
2. *Women's health.* In addition to the implementation of a national strategy on care for normal delivery in childbirth, there is a specific strategy on prevention and management of violence against women. The role of the Observatory of Women's Health has been already outlined in Chapter 2, describing the National Agency for Quality of the SNS.

---

7 For documents see MSPS (2009d, 2009j, 2009o).

### 3. *Knowledge management*

a. *Clinical practice guidelines*. Development and dissemination of clinical guidelines linked to the implementation of national health strategies. The main tool is *Guía Salud*,<sup>8</sup> a body of the SNS, that reports directly to the CISNS, and in which all ACs participate. It was created as the national methodological reference for elaboration and implementation of evidence-based instruments (including clinical guidelines). The secretariat is in Aragón Health Department. Its main goals are:

- the standardization of methodology for the production of clinical guidelines;
- the assessment of guidelines produced in different parts of the SNS for dissemination;
- the development of clinical guidelines (often coordinating teams located in different regional systems) and methods for their implementation;
- the assessment of the implementation and penetration of their evidence-based products; and
- training professionals in the use and production of clinical evidence.

b. *National health information systems* (see *Information systems* in Section 4.2 *Planning and health information management*). The priorities under the National Quality Plan are:

- enhancement of the national primary health care information system (SIAP), leveraging it to hospital linked sets;
- developing a unified e-clinical record, building on the existing regionally specific versions;
- consolidating the unified individual health information card and a unique patient identifier valid across all ACs.

### 4. *Process re-engineering*

a. *Patient safety*. This field has generated a considerable amount of work and initiatives. Funded under the National Strategy for Patient Safety, it has a great deal of involvement by ACs; the issue is high on all regional agendas and the timing was such that the National Agency for Quality in the SNS had time to take the lead in orchestrating a shared approach before the ACs had developed their singular regional patient safety strategies. The approach taken is two-fold; on the one hand, there is

---

8 Further information is available at: <http://www.guiasalud.es/home.asp>

a focus on knowledge dissemination and fostering a culture of safety in the SNS; on the other hand, there is an effort to generate a corpus of evidence on the actual situation in the SNS, and to refine and adapt internationally agreed methodologies for its measurement. Several lines of work feed in:

- patient safety training for health professionals, managers and patients groups, involving funding and technical support to the ACs for the implementation of these activities;
- design, implementation and development of learning-oriented information systems for the notification of adverse events in the SNS (eventually leading to a national register of adverse events and incidents) and implementation of “safe practices” recommendations for the SNS hospitals;
- research on:
  - epidemiology of adverse events in SNS hospitals (ENEAS study 2006), primary care (APEAS study 2008), long-term care centres (EARCAS, starting in 2010) and epidemiological analysis of nosocomial infections;<sup>9</sup>
  - evaluation of safe medication use across SNS hospitals;
  - validity for the Spanish context of patient safety indicators used internationally (OECD);
  - setting care quality standards for patient safety and assessment of compliance to them across SNS hospitals (SENECA project; see MSPS 2009e);
  - implementation of safe practices recommended by international organizations through specific agreements with the health regions, in particular the following in collaboration with WHO:
    - Hand Hygiene Campaign;
    - “Bacteraemia zero” project: to prevent bacteraemia related to catheter use in intensive care units (ICUs);
- empowerment of patients and citizens through the development of the Patients Trainers Network on patient safety and studies on perception of the safety of SNS hospitals; and

---

9 These reports can be found at: <http://www.seguridaddelpaciente.es/index.php/lang-en/informacion/publicaciones/epidemiological-studies.html>

- active international collaboration in European country networks such as EUnetPAs,<sup>10</sup> EU Patient Safety and Quality of Care Working Group,<sup>11</sup> WHO Patient Safety Programme<sup>12</sup> and OECD Health Care Quality Indicators project.<sup>13</sup>

b. *Standards and recommendations for sensitive health care units/ departments in the SNS.*<sup>14</sup> In addition to specific health care units, these can also address care for specific types of patients (such as multiple-pathology) or procedures (certain types of surgery) that are considered especially sensitive in terms of safety and quality of care. To illustrate, the list issued so far covers the following topics:

- hospital care for highly complex patients with multiple chronic conditions
- surgical theatres
- day-surgery units
- ambulatory major surgery
- hospital maternity units and childbirth care.

Developed by the National Agency for Quality of the SNS in close collaboration with expert groups appointed by the main professional associations, these documents do not have a normative character in authorizing the opening of a new unit or re-accrediting the functioning of an existing one, though; instead, they are conceived as a support tool for health authorities, managers and professionals, offering criteria for quality and patient safety assurance in these priority areas. The recommendations tackle key aspects of care in these contexts, such as patient safety and rights, organization and management, resources (structure and staff), as well as some indicators appropriate for health care quality assessment.

In line with the excellence-fostering approach that follows from the initiatives described, the Agency for Quality also exerts a normative side in regulating the audit and accreditation of health care centres and services; this

---

10 See: <http://www.eunetpas.eu/>

11 See: [http://ec.europa.eu/health-eu/care\\_for\\_me/patient\\_safety/index\\_en.htm](http://ec.europa.eu/health-eu/care_for_me/patient_safety/index_en.htm)

12 See: <http://www.who.int/patientsafety/about/en/index.html>

13 See: <http://www.oecd.org/health/hcqi>

14 For documents see MSPS (2009d, 2009f, 2009o).

accreditation by a national authority<sup>15</sup> is required for them to host specialist training and teaching, as well as to be appointed as an SNS *reference centre/service/unit* (CSUR-SNS). The figure of the CSUR-SNS was created by Royal Decree 1302/2006; the objective is the protection of equity in access to high-quality, safe and efficient care for patients with conditions requiring such highly specialized resources and skills that cases need to be concentrated in a few sophisticated tertiary level centres/services. There is a national committee in charge of the designation of CSUR-SNS and the final decision requires the approval of the CISNS. Since 2007, 43 very specific conditions have been determined as requiring a corresponding CSUR-SNS to be designated (see MSPS 2009b). As an illustration, in 2008, 4 clinical units in 4 hospitals were designated for specific conditions in the area of oncology, 39 units in 17 hospitals in ophthalmology, 30 units located in 13 hospitals for transplantation and 10 units belonging to 9 hospitals for certain plastic surgery procedures (MSPS 2009b).

According to the information reported by ACs to the SNS Annual Report 2008 elaborated by the Observatory of the SNS, all regional health systems apply models of continuous quality improvement based either on the International Organization for Standardization (ISO) or on the European Foundation for Quality Management (EFQM). Different levels of implementation seem to coexist though, with some ACs having completed the accreditation and even re-accreditation process for all their organizations, centres, services and processes, while others are still at the stage of drawing up process maps.

Formative and training activities to enhance quality and a safety culture targeting all levels of their organizations are also reported by all ACs. The creation or consolidation of quality units at each basic health area level, and functional units of patient safety seem to be common across regional health services, as well as involvement in national programmes such as “Hand-washing” for the prevention of nosocomial infection, and “Bacteraemia zero” aimed at reducing catheter-related infections, the prevention of accidental hospital falls and pressure ulcers.

---

15 Regional health authorities hold full responsibility for regular accreditation and authorization of health care centres in their territory. In addition, the National Quality Plan foresees the agreement across ACs on a common minimum set of requirements, and quality and safety guarantees enforceable for new centres to be authorized.

## 4.2 Planning and health information management

Health planning is a competence of the regional health departments and as such, each of them develops their regional health plans (HPs). They are the principal instrument for identifying intended courses of action and planning resources towards the achievement of previously defined health goals. That was a mandate of the Health Care General Act in 1986 and the Regional Health Acts in each AC. Although there is a great deal of variability in the design and contents of the different regional HPs, all share the purpose of responding to identified health needs and offering strategies for health systems action, inspired by WHO's Health for All and HEALTH21 strategies. Today, all ACs have published at least one HP, and some have gone through as many as five reviews (Table 4.2 shows the different HPs developed by each regional department). Each version of the plan normally holds for a four- or five-year period. These plans in turn materialize in regional strategic plans, infrastructure plans, regional health strategies and health programmes.

**Table 4.2**  
HPs by ACs

| ACs                | HPs                                                   |
|--------------------|-------------------------------------------------------|
| Andalucía          | 1993–1998, 1999–2002, 2003–2008                       |
| Aragón             | 1999–2003                                             |
| Asturias           | 2003–2007                                             |
| Balearic Islands   | 2003–2007, 2008–2011                                  |
| Basque Country     | 1988–2000, 1994–2000, 2002–2010                       |
| Canary Islands     | 1997–2001, 2003–2007, 2009–2014                       |
| Cantabria          | 1996–2000                                             |
| Castilla-La Mancha | 1995–2000, 2001–2010                                  |
| Castilla-León      | 1991–2000, 1998–2007, 2008–                           |
| Catalonia          | 1993–1995, 1996–1998, 1999–2001, 2002–2005, 2006–2010 |
| Valencia           | 2001–2004                                             |
| Extremadura        | 1997–2000, 2001–2004                                  |
| Galicia            | 1998–2001, 2002–2005                                  |
| Madrid             | 1995–2004                                             |
| Murcia             | 2003–2007                                             |
| Navarra            | 1991–2001, 2001–2005, 2006–2012                       |
| La Rioja           | 1995–1999 new HP in process                           |

Source: Updated from Durán, Lara & van Waveren 2006, based on MSPS 2010i.



In those HPs published in recent years (known in the literature as “second-generation plans”), more realistic objectives are being proposed, both in number and in scope, along with more refined indicators and some evaluation systems. HPs generally deal with high-prevalence diseases and chronic care (oncological diseases, cardiovascular conditions, diabetes, etc.), which normally take the form of specific programmes to be implemented by the regional health service; mental health and drugs abuse programmes can be found in most regional HPs; women- and children-specific programmes are also very frequent (MSPS 2010h).

Beside those disease-specific (or population target-specific) programmes, the HPs normally include goals, means and indicators regarding information technology, human resources and clinical research. Specific planning with regard to enhancing citizens’ participation in health services and increasing the effective realization of patients’ rights appears in many ACs. Objectives of reduction of maximum waiting times for surgery, specialist visits or diagnostic procedures are constant features across regional departments’ planning.

### **Health technology assessment**

It should be underlined that HTA functions are present both at national and regional level (see Section 2.3 *Organizational overview*). At national level, the Health Technologies Assessment Agency (AETS) is located within the Carlos III Health Institute. At regional level, some of the ACs have created their own agencies: in Andalucía (Andalucian Health Technologies Assessment Agency, AETSA, under the General Directorate of Training and Process Engineering of the regional health service); in the Basque Country (Health Technologies Assessment Service, OSTEBA, under the General Directorate of Health Planning and Regulation of the regional health department); in Catalonia (Technology Assessment and Medical Research Agency, AATM, functioning as a public company within the regional health service); in Galicia (Galician Health Technologies Assessment Agency, AVALIA-T, also under the regional health service); in Madrid (Technologies Assessment Unit of the Laín Entralgo Agency for Health Studies, Training and Research, under the General Directorate of Health Care Quality, Public Health and Consumer Affairs). In some cases, their existence even pre-dates the creation of the national agency. They were conceived to provide a quick response to local questions regarding the introduction of new technologies and the appropriate use of existing ones. For many years, there has been a debate on the trade-off between local availability of this resource and the potential loss of economies

of scale entailed by fragmentation of appraisal capacity, the potential duplication of effort and the potential threat to the rationale underlying the definition of the basic benefits package.

While most of the HTA regional agencies and the national HTA agency are individual members of international networks such as the International Network of Agencies for HTA (INAHTA) or the European initiative European Collaboration for HTA – Assessment of Health Interventions (ECHTA/ECAHI), a national coordination programme was lacking. The recent creation of the platform of HTA agencies, AUnETS,<sup>16</sup> has marked a turning point in the direction of fostering coordination and synergies. Actually, the stated objective of this platform is networking to achieve the following.

- efficient sharing of existing resources in producing a variety of outputs and services;
- acting effectively as a valid interlocutor for the national and European institutions; and
- fostering common projects and joint lines of work among the members.

The platform is part of the HTA plan of the SNS, under the auspices of the CISNS. It would be premature to try to assess whether this fluid structure will succeed in making the system more rational and efficient.

The regulation of the inclusion of new items in the SNS common benefits package (see Section 3.2 *Population coverage and basis for entitlement*) explicitly requires as a previous step appraisal by the national HTA agency in cooperation with AUnETS; however, this process is brand new and hence the incorporation of the benefits already in the package was never subject to this condition. Therefore, HTA is likely to gain more weight in policy-making and this might become the incentive necessary to boost close coordination to enhance capacity in coping with a potentially more demanding role.

## Information systems

The previous chapters have already highlighted multiple aspects of the SNS's striving for balance between total devolution to the regional level and global governance. Information systems are obviously a core part of this delicate equilibrium. The progressive decentralization of health competences overlapped in time with the “explosion” of health information systems. The new administrations, eager to implement innovation and differentiate themselves,

---

<sup>16</sup> See: <http://aunets.isciii.es>

developed regional information systems and tools following their own path during the 1990s and early 2000s, disregarding compatibility and interoperability issues; mandatory data-reporting to the central level was perceived by the regional administrations as the remains of control and tutelage by the national ministry and therefore something to minimize; as a consequence, global data paucity became the norm in an environment of increasing enthusiasm for local information. Eventually, this centrifugal trend shifted when it became apparent that the resulting technological divergence was seriously hindering the ability of the SNS to cope with issues such as patients' mobility across the territory, "cross-border" cooperation between neighbouring regions, allocation of resources, national strategies, coordinated efforts that exceeded regional capacities, and assessment of the quality, equity and efficiency of the system, among many others. As on other occasions, the CISNS became the meeting point to seek common ground, following the mandate in the SNS Cohesion and Quality Act of 2003. The Sub-commission on Information Systems of the CISNS is one of the most active, and has become the forum for coordination among ACs and for working towards national health information systems. As mentioned in *Regulating quality of care* in Section 4.1 *Regulation*, the enhancement of the national health information systems is one of the priorities of the National Quality Plan for the SNS, which has its own earmarked budget.

The SNS Cohesion and Quality Act created the National Health Information Institute, which is included in the structure of the Agency for Quality of the SNS (see *General state administration (central government)* in Section 2.3 *Organizational overview* for further details on its organizational anchorage and functions). The Institute became the secretariat of the Sub-commission on Information Systems of the CISNS. As such, it embarked on the task of consolidating the few information systems that were still run in a centralized way at the Ministry, such as the national catalogue of hospitals, the National Survey of Inpatient Care Premises (ESCRI), the Minimum Basic Data set from Hospital Discharges (CMBD) or the National Health Survey (ENSE). With the support of the ACs the Institute also started to strengthen the meagre primary care information systems, creating the SIAP, and including information at the basic care area level about the structure of the population assigned to each type of professional in the area, available human and structural resources, the catalogue of services offered by each type of professional, and organization of the different types of resources available at primary and community level of attention. Last but not least, the Institute is in the middle of articulating a new shared information system containing the minimum amount of information to allow for patient mobility across the system, and system-level analysis of quality, efficiency and equity.

The approach taken in this endeavour might seem a little over-complicated and perhaps even second best; however, it perfectly matches the consensus compromise of building on the diversity of health information systems already available rather than standardizing regional health information systems items. Two examples may illustrate this point: the introduction of unique patient identifiers and smart Health Identity Cards (TIS) in the 1990s and early 2000s left seven different coexisting card models: one for the ten regions previously managed by INSALUD plus the Canary Islands and six other models corresponding to other six ACs with full competences already transferred; the resulting seven card types were not interoperable. Likewise, the development of the eCR and electronic prescriptions followed multiple paths and variety with regard to the degree of implementation. The first necessary step was to enhance a single system of patient identification valid across the country independently of where the TIS were issued. With a view to maintaining the specific code running in each regional information system (matching their respective architectures), a new national code was assigned to all individuals. This code links and integrates information from different administrative databases hosted in the ACs creating a new nationwide TIS database (regulated by Royal Decree 183/2004). Roughly speaking, the basic strategy adopted consists in agreeing a common structure of relevant information items to be automatically extracted from the regional information system; a common “*language*” is also agreed, so the relevant items are translated from the regional “*tongue*” into the “*lingua franca*”, achieving semantic interoperability. This information is stored at the *SNS central node* (the national repository of shared information) and becomes available from any point of the SNS. The key for access to individual patient data is the SNS unique identification number coexisting with the regional unique identifier. The system has already incorporated the population of 15 ACs and INGESA; Catalonia is in the last phase of information load simulation, and is expected to be fully operative in the next months, and the Basque Country is still testing interoperability, being the last AC to join.

The SNS Project started at the beginning of 2008 and is currently completing its pilot phase in 10 ACs. The blocks of information included in the SNS eCR are the outcome of intense consensus-building led by the National Health Information Institute and involving several working groups of clinical, management and IT experts from all ACs. Those basic contents are structured into six data sets:

- summarized eCR (those data strictly necessary for a professional to be able to provide care to the patient anywhere in the SNS) and primary care clinical reports

- specialties ambulatory care clinical reports
- emergency care clinical reports (in primary care, hospitals or mobile units)
- lab results
- image results
- nursing care reports.

The wealth of information that the full implementation of the eCR in the SNS will feed into the system will certainly represent a major step in the coordination and cohesion of the SNS. It is worth noting that the SNS is also involved in the European project ePSOS (European Patient – Smart Open Services)<sup>17</sup> within the e-Health 2010 initiative. The aim is quite similar to the SNS eCR, that is, developing the cross-border interoperability of two basic services: summarized eCR and ePrescription.

The information available is already being fed into several sets of SNS indicators available at the MSPS web page (MSPS 2009k), among them the INCLASNS (Key Indicators of the SNS) already described in *General state administration (central government)* in Section 2.3 deserve special mention.

## Research and development

The common framework of reference for research is established in the National Strategy for Science and Technology (ENCYT) set for the period 2007–2015; the main stakeholders (central administration, ACs, researchers and social agents) were involved in the elaboration of this strategy (Inter-Ministerial Commission on Science and Technology 2007). The ENCYT includes a Sector Initiative for Health, framing the promotion and coordination of research in the field. This strategy acknowledges the complementary nature of scientific and clinical careers, and the need to establish adequate incentives to reward and promote the research capacity integrated in the SNS; it introduces accreditation and career paths for clinical and biomedical researchers in the system. It also promotes the creation of institutes for biomedical research and scientific networks for shared use of research infrastructures and development of collaborative research projects.

Within this framework, the main tool is the 6th National Plan for Research, Development and Innovation (R&D+I) 2008–2011. The Plan highlights four priority areas: knowledge and capacity generation, enhancement of

---

<sup>17</sup> See: <http://www.epsos.eu/>

cooperation in R&D, development and technological innovation by sectors, and strategic actions. The Strategic Action on Health (*Acciones Estratégicas en Salud*, AES) tackles mainly issues related to human resources, projects, the strengthening of institutions, infrastructures and the articulation of the R&D+I system. The explicit objectives include increasing public and private investment in R&D+I in health, building up human capital, intensifying health-related R&D+I production and its international impact, and amplifying health knowledge and technology transfer (bridging the gap between basic research and clinical practice).

The AES unfolds through several lines of action:

*Line 1: Human resources.* It introduces training and mobility programmes for health and biomedicine researchers, special contract schemes for incorporating new researchers and agreements for collaboration and exchange across institutions nationally and abroad.

*Line 2: Projects.* Three funding sub-programmes which cover “Research on Health”, “Non-commercial Clinical Research” (orphan drugs, pharmacoepidemiology and safety of authorized pharmaceuticals in real clinical practice, medication for specific populations – paediatric in particular – cell and genomics therapies, etc.) and “Health Technology Assessment and Health Services Research”.

*Line 3: Infrastructures.* Priority is given to the acquisition of research equipment and infrastructure for shared use by research teams within the SNS centres.

*Line 4: Enhancement of stable cooperative research structure and networks.* It has three funding instruments: CIBER (Network Centres of Biomedical Research), RETICS (Thematic Networks of Cooperative Research in Health) and CAIBER (Consortium for the Support of Network Biomedical Research). Table 4.3 summarizes the relevant figures for these instruments.

*Line 5: Complementary actions reinforcing particular aspects of the previous ones.* This includes actions to enhance private–public cooperation in clinical research and promoting the creation of research institutes within the SNS.

Scientific and technological research at SNS level is coordinated by the Institute of Health Carlos III, recently relocated under the umbrella of the Ministry of Science and Innovation, whose mandate was described in Chapter 2.

**Table 4.3**

Instruments for the enhancement of cooperative research structure and networks by the end of 2008

**CIBER**

| <b>Title</b>                                  | <b>Groups integrated</b> | <b>Researchers integrated</b> | <b>Funding assigned (million €)</b> |
|-----------------------------------------------|--------------------------|-------------------------------|-------------------------------------|
| Bioengineering, biomaterials and nanomedicine | 55                       | 544                           | 5 749                               |
| Epidemiology and public health                | 55                       | 547                           | 4 466                               |
| Physiology of obesity and nutrition           | 32                       | 288                           | 4 030                               |
| Hepatic and digestive diseases                | 50                       | 432                           | 6 305                               |
| Neurodegenerative diseases                    | 64                       | 493                           | 6 862                               |
| Respiratory diseases                          | 35                       | 309                           | 4 466                               |
| Rare diseases                                 | 64                       | 609                           | 7 612                               |
| Diabetes and metabolic diseases               | 32                       | 265                           | 4 659                               |
| Mental health                                 | 26                       | 244                           | 3 612                               |
| <b>TOTAL</b>                                  | <b>413</b>               | <b>3 731</b>                  | <b>47 761</b>                       |

**RETICS**

| <b>Title</b>                                                                                                 | <b>Groups integrated</b> | <b>Researchers integrated</b> | <b>Funding assigned (€)</b> |
|--------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------|-----------------------------|
| Network of addictive disorders                                                                               | 1                        | 7                             | 40 710                      |
| Network of heart failure (REDINSCOR)                                                                         | 7                        | 19                            | 48 300                      |
| Network of AIDS                                                                                              | 1                        | 11                            | 40 710                      |
| Network of research on infectious diseases (REIPI)                                                           | 2                        | 14                            | 68 858                      |
| Network of cell therapy                                                                                      | 1                        | 15                            | 34 716                      |
| Network of cooperative research on ageing and fragility (RETICEF)                                            | 1                        | 14                            | 40 710                      |
| Network of risk factors, evolution and treatment of cardiovascular diseases and mechanisms involved (RECAVA) | 2                        | 27                            | 75 427                      |
| Network of research on kidney diseases (REDINREN)                                                            | 2                        | 15                            | 58 644                      |
| Network of research on preventive activities and health promotion in primary care (REDIAP)                   | 2                        | 28                            | 63 439                      |
| Network of cooperative research in cancer                                                                    | 3                        | 24                            | 110 144                     |
| Network of tropical diseases: from genetics to control (RICET)                                               | 1                        | 5                             | 34 717                      |
| Neurovascular network (RENEVAS)                                                                              | 2                        | 20                            | 69 433                      |
| Network of healthy diet in the primary prevention of chronic diseases (PREDIMED)                             | 1                        | 6                             | 34 716                      |
| Network of multiple sclerosis (REEM)                                                                         | 3                        | 19                            | 104 150                     |
| Eye pathology of the ageing, quality of sight and quality of life                                            | 2                        | 13                            | 69 433                      |
| Network of research on adverse reactions to allergens and drugs (RIRAAF)                                     | 1                        | 6                             | 34 717                      |
| Network of cooperative research on computational medicine (COMBIOMED)                                        | 1                        | 15                            | 34 717                      |
| Network of mother and child health and development                                                           | 13                       | 105                           | 700 380                     |
| Network of research on inflammatory process and rheumatic diseases                                           | 22                       | 165                           | 962 544                     |
| <b>TOTAL</b>                                                                                                 | <b>68</b>                | <b>528</b>                    | <b>2 626 465</b>            |

Source: FIS 2008.

The initiative INGENIO 2010 was set up by the Spanish government with the aim of bridging the gap in R&D+I, and seeking convergence with the EU by raising investment to 3% of GDP by 2010. In the field of health, this means that the available funding instruments, such as CIBER and RETICS, focus on the development and strengthening of stable structures of cooperative research. The current breakdown of economic growth and diminishing budgetary perspectives may interrupt the continuity of these improvement plans.



## 5. Physical and human resources

### 5.1 Physical resources

**A**s discussed throughout the document, the devolution of health care competences has shifted most managerial and policy-making power to the ACs. Therefore, there are 17 autonomous institutions responsible for making their own decisions with regard to resources planning in their regions. There exist some shared basic principles for planning, notably those related to minimum standards of resources and the quality of services to be provided to the Spanish population wherever they are served; the CISNS, the Agency for Quality of the SNS and the General Directorate of Cohesion, High Inspection and Professionals Regulation of the SNS oversee the level of adherence to those standards across ACs. As stressed in the previous chapters, the relationship between those bodies and the regional governments is mainly based on coordination and consensus rather than enforcement.

The private sector, on the other hand, is ruled by market laws and business decisions govern the distribution of infrastructure.

#### **Infrastructure and capital investment**

The consolidation of the SNS information system allows for annually updated information on the premises and resources available both for primary care (SIAP-SNS) and specialized care (SIAE, National Catalogue of Hospitals and ESCRI) across the country. In addition to being available at the MSPS web page, these data are updated each year in the SNS annual report elaborated by the Observatory of the SNS and approved by the CISNS (MSPS 2010f, 2010h).

### Primary health care infrastructure

The primary care network is entirely public in Spain and most of the providers are salaried professionals within the public sector, with the few exceptions described in Chapter 4 (private providers are contracted out to provide primary health care under different formulas in Valencia and Catalonia).

There is remarkable variability in the distribution of primary health care resources among the basic health territorial divisions or health areas (Table 5.1), which can be attributed to the variation in size and dispersion of the population across the territory;<sup>1</sup> some health areas can be divided into as many as 211 basic health zones (BHZ) while others can consist of just one. There are two types of premises available for primary health care provision, differing in the resources assigned and type of service offered; the most complete are known as *health centres*. Each of them serves a BHZs, the majority of the population being served within this primary health care model. Normally, health centres have several surgeries attended by a multidisciplinary team comprising family doctors, paediatricians, nurses and social workers; some include physiotherapists and dentists' surgeries, and are linked to some basic laboratory and image diagnosis resources, either in the same premises or centralized in order to serve several centres in the vicinity. Often several PCTs (two or more) are based in the same health centre to cover the whole timetable; the activity schedule runs uninterrupted from 8:00 to 21:00, Monday to Friday, and there are emergency and home visits available after-hours and during the weekends.

The other type of primary health care structure is called the *local medical office* (LMO) and belongs mainly to rural areas with low population density. Several LMOs pertain to the same BHZ/PCT; in a way they are *decentralized* primary health care structures thought to take the basic primary consultation services closer to the often quite aged population residing in these locations. Office hours are limited to certain days and hours per week, and normally they are staffed by family doctors and nurses based in the main village and organized to rotate, providing care to a certain portion of the territory within the defined BHZ. Outside scheduled consultation hours, care is provided by emergency services, also centralized. Equipment is usually quite limited. Table 5.2 summarizes the number of both types of premises by ACs and the territorial organization in each of them. Castilla-León and Castilla-La Mancha are the ACs with a higher number of LMOs, as they are the ACs with the lowest population densities. The ratio of population covered to primary health care premises is therefore subject to great variation too. Just to give a flavour, taking the latest

---

1 Chapter 4 has already described the territorial division of health care in the SNS into health areas and BHZ; the criteria applied in defining these units and the variation across the territory were also outlined there.

update for December 2008, the national ratio is about 3500 covered individuals per health centre or LMO; however, leaving INGESA aside, the range goes from more than 15 000 people per health centre or LMO in Madrid to around 600 in Castilla-León (Table 5.2).

**Table 5.1**

Variation in the distribution of structural resources per health area across Spain, 2008

|         | No. of BHZs | No. of health centres | No. of LMOs |
|---------|-------------|-----------------------|-------------|
| Maximum | 211         | 230                   | 594         |
| Mean    | 17          | 19                    | 65          |
| Minimum | 1           | 2                     | 0           |

Source: MSPS 2010h.

**Table 5.2**

Organization and distribution of primary health care structure per AC, 2008

| ACs                | Population covered | Health areas | HZs   | Health centres | LMOs   | Total PHC | Population covered/PHC unit |
|--------------------|--------------------|--------------|-------|----------------|--------|-----------|-----------------------------|
| Andalucía          | 8 106 717          | 33           | 216   | 390            | 1 097  | 1 431     | 5 451.7                     |
| Aragón             | 1 341 557          | 8            | 125   | 116            | 915    | 1 031     | 1 301.2                     |
| Asturias           | 1 071 966          | 8            | 84    | 68             | 150    | 218       | 4 917.3                     |
| Balearic Islands   | 1 015 123          | 3            | 55    | 55             | 104    | 159       | 6 384.4                     |
| Basque Country     | 2 279 745          | 7            | 116   | 135            | 183    | 318       | 7 169.0                     |
| Canary Islands     | 1 926 657          | 7            | 109   | 109            | 160    | 269       | 7 162.3                     |
| Cantabria          | 572 433            | 4            | 40    | 38             | 134    | 172       | 3 328.1                     |
| Castilla-León      | 2 450 507          | 11           | 248   | 240            | 3 644  | 3 864     | 630.9                       |
| Castilla-La Mancha | 2 002 292          | 8            | 197   | 196            | 1 138  | 1 327     | 1 501.0                     |
| Catalonia          | 7 611 692          | 7            | 358   | 407            | 827    | 1 199     | 6 168.3                     |
| Extremadura        | 1 079 355          | 8            | 113   | 106            | 417    | 523       | 2 063.8                     |
| Galicia            | 2 770 275          | 7            | 315   | 389            | 96     | 485       | 5 711.9                     |
| Madrid             | 6 309 170          | 11           | 307   | 257            | 158    | 415       | 15 202.8                    |
| Murcia             | 1 413 247          | 6            | 85    | 76             | 189    | 265       | 5 333.0                     |
| Navarra            | 616 107            | 3            | 54    | 54             | 244    | 298       | 2 067.5                     |
| La Rioja           | 313 496            | 1            | 19    | 19             | 171    | 190       | 1 650.0                     |
| Valencia           | 5 218 147          | 22           | 240   | 252            | 580    | 832       | 6 271.8                     |
| INGESA             | 130 583            | 2            | 7     | 7              | 0      | 7         | 18 654.7                    |
| Total              | 46 229 069         | 156          | 2 688 | 2 914          | 10 207 | 13 121    | 3 523.3                     |
| Average            | —                  | —            | —     | —              | —      | —         | 5 631.9                     |

Source: Based on SIAP-SNS 2008, MSPS 2010h.

Note: PHC: Primary Health Care

### **Hospital health care infrastructure**

According to the National Catalogue of Hospitals, at the beginning of 2008, there were 804 hospitals in Spain, around 40% of them belonging to the SNS; the remainder are privately owned, although many are included in the networks of public utilization or within a substitute concession by which their activity is publicly funded; in fact, around 40% of private hospitals' discharges in Spain are funded out of the SNS budget (MSPS 2010c). The total number of hospital beds amounts to 160 981 or 3.43 beds per 1000 inhabitants. Overall, some 40% of total bed capacity is concentrated in big tertiary/quaternary hospitals with over 500 beds (mainly public) (MSPS 2009h); every AC has at least one of these centres, with variations subject to access considerations such as levels of population dispersion and volume.

The last National Survey of Inpatient Care Premises (ESCRI 2008) yields a figure of 71.2% of available beds functionally dependent on the public sector. Since 2000, the proportion of publicly owned bed capacity has seen a slight decrease in several ACs (Fig. 5.1), probably reflecting the referred increased share of activity attained by the private sector (see *The role of insurance companies* in Section 2.3 *Organizational overview*); Navarra and Catalonia have the lowest proportion of public beds (below 60%), however in 2007 Catalonia saw a marked rise; Castilla-León and Extremadura are at the opposite end of the range, with around 90%.

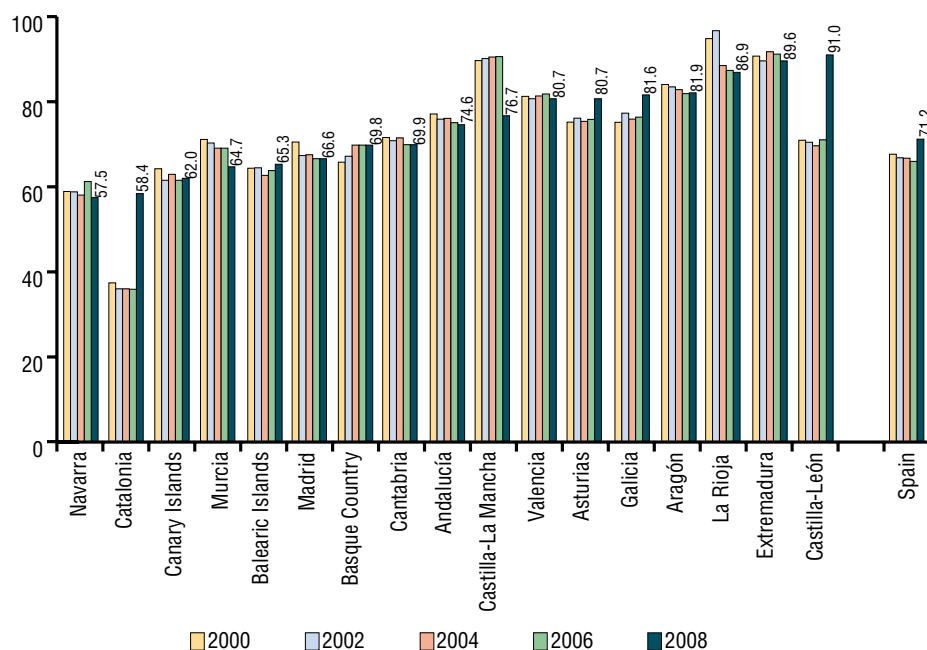
The distribution of those beds between acute and other forms of care has varied substantially in the last two decades (Table 5.3). For instance, there has been a dramatic decrease in psychiatric beds because of the closing down of psychiatric hospitals on a massive scale, following mental health care reforms. The number of long-term care beds, on the other hand, has seen some increase, finally reaching a plateau and even seeing a slight decrease; this is partly a consequence of the path followed in expanding social care, initially focused in residential premises and progressively turning to the promotion of community care solutions. It is interesting to analyse the trend separately in the public and private sector (Table 5.4). The percentage decrease registered for public acute beds since 2000 is smaller than the 3.7% decrease in private acute beds; this trend reverses, however, when it comes to psychiatric beds,<sup>2</sup> and it becomes even a net increase in private long-term care beds (in the range of 15%). Basically, the SNS manages 80% of the acute beds pool, against only 36% of psychiatric beds and 30% of long-term beds. This seems to point out a clear shift towards the private sector when it comes to installed capacity for this type of care.

---

2 The big asylums which closed down following mental health care reforms were mainly public.

**Fig. 5.1**

Percentage of publicly owned hospital beds per AC, 2000–2007



Source: ESCRI 2008.

**Table 5.3**

Beds mix in acute care hospitals, psychiatric hospitals and long-term care institutions in Spain, 1980–2006

|                                                       | 1980   | 1985   | 1990   | 1995   | 2000   | 2003   | 2004   | 2005   | 2006   |
|-------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Acute care hospital beds per 100 000 inhabitants      | 398.40 | 350.92 | 333.43 | 303.66 | 284.06 | 275.24 | 273.07 | 270.81 | 270.81 |
| Psychiatric hospital beds per 100 000 inhabitants     | 114.44 | 91.79  | 70.67  | 60.29  | 52.23  | 48.57  | 47.59  | 45.77  | 46.59  |
| Nursing and elderly home beds per 100 000 inhabitants | 22.65  | 12.85  | 21.72  | 30.45  | 32.54  | 33.40  | 33.34  | 33.06  | 32.74  |

Source: WHO Regional Office for Europe 2009.

**Table 5.4**

Variation in the number of beds available by function and sector, 2000–2007

| <b>SNS/public</b> | <b>2000</b>    | <b>2001</b>    | <b>2002</b>    | <b>2003</b>    | <b>2004</b>    | <b>2005</b>    | <b>2006</b>    | <b>2007</b>    | <b>% 00/07</b> |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Acute             | 105 532        | 103 582        | 102 587        | 103 159        | 102 421        | 101 689        | 102 510        | 102 854        | -2.5           |
| Psychiatric       | 7 563          | 7 225          | 6 912          | 6 396          | 6 319          | 5 926          | 5 832          | 5 690          | -24.8          |
| Long-term care    | 4 342          | 3 957          | 3 692          | 3 888          | 4 087          | 4 282          | 3 909          | 4 231          | -2.6           |
| <b>Total</b>      | <b>117 437</b> | <b>114 764</b> | <b>113 191</b> | <b>113 443</b> | <b>112 827</b> | <b>111 897</b> | <b>112 251</b> | <b>112 775</b> | <b>-4.0</b>    |

| <b>Private</b> | <b>2000</b>   | <b>2001</b>   | <b>2002</b>   | <b>2003</b>   | <b>2004</b>   | <b>2005</b>   | <b>2006</b>   | <b>2007</b>   | <b>% 00/07</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Acute          | 26 839        | 26 407        | 26 843        | 24 762        | 24 941        | 24 889        | 25 121        | 25 852        | -3.7           |
| Psychiatric    | 10 388        | 10 436        | 10 758        | 10 625        | 10 673        | 11 216        | 10 918        | 10 229        | -1.5           |
| Long-term care | 8 227         | 8 184         | 8 319         | 8 646         | 9 627         | 9 143         | 9 215         | 9 450         | 14.9           |
| <b>Total</b>   | <b>45 454</b> | <b>45 027</b> | <b>45 920</b> | <b>44 033</b> | <b>45 241</b> | <b>45 248</b> | <b>45 254</b> | <b>45 531</b> | <b>0.2</b>     |

Source: ESCRI 2008. Reproduced from MSPS 2010h.

Table 5.5 zooms down the distribution of bed capacity across ACs; Catalonia, Cantabria and Aragón present the highest total beds ratio per 1000 population (above 4), whereas Valencia, Andalucía and Castilla-León show rates below 3 per 1000 at the other end of the range; nevertheless the range of variation is quite narrow (from 2.68 to 4.41).

The rates of psychiatric and long-term care private beds per 1000 population are systematically higher than the corresponding public beds ratios for all ACs. The pattern is reversed when it comes to acute care beds in most of the ACs, except Catalonia, where the number of private beds per 1000 population slightly exceeds that of public beds (1.40 to 1.35, practically half and half; see Chapters 2 and 4 on the historical peculiarity of the Catalan network of providers).

When comparing the evolution of hospital acute care beds in Spain with the trend in other parts of the European region (Fig. 5.2), the resulting picture shows how the downward trend in rate of beds per 100 000 population seems to be a common feature across the seven countries analysed. The comparison involves two EU countries showing figures well above the EU average in the 1990s (Germany and France), the United Kingdom and two Mediterranean countries (Italy and Portugal), all three below the EU average; Spain started with the lowest ratio of them all, and maintained this status at the end of the period (1990–2006). It is interesting to note, though, how the Spanish rate of decrease (the slope in the figure) seems to resemble that of France, Germany and the EU, rather than the steeper decline experienced by Italy and the United Kingdom.

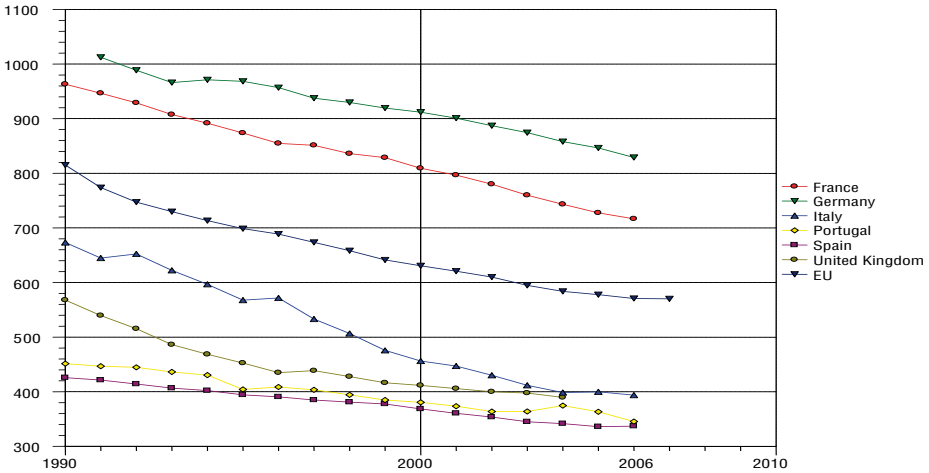
**Table 5.5**  
Number of hospitals and bed rates per AC, 2007

|                    | Acute hospitals |                                     |            |                                     | Long-term care |                                     |           |                                     | Psychiatric |                                     |           |                                     | Total      |                           |
|--------------------|-----------------|-------------------------------------|------------|-------------------------------------|----------------|-------------------------------------|-----------|-------------------------------------|-------------|-------------------------------------|-----------|-------------------------------------|------------|---------------------------|
|                    | Public          |                                     | Private    |                                     | Public         |                                     | Private   |                                     | Public      |                                     | Private   |                                     | Hospitals  | beds per 1 000 population |
|                    | Hospitals       | Installed beds per 1 000 population | Hospitals  | Installed beds per 1 000 population | Hospitals      | Installed beds per 1 000 population | Hospitals | Installed beds per 1 000 population | Hospitals   | Installed beds per 1 000 population | Hospitals | Installed beds per 1 000 population |            |                           |
| Andalucía          | 42              | 2.05                                | 48         | 0.54                                | -              | -                                   | 4         | 0.04                                | 1           | 0.02                                | 5         | 0.12                                | 100        | 2.78                      |
| Aragón             | 12              | 2.89                                | 5          | 0.37                                | 3              | 0.11                                | 2         | 0.14                                | 4           | 0.40                                | 2         | 0.25                                | 28         | 4.16                      |
| Asturias           | 9               | 3.02                                | 7          | 0.80                                | -              | -                                   | 2         | 0.15                                | -           | -                                   | 2         | 0.07                                | 20         | 4.05                      |
| Balearic Islands   | 8               | 2.00                                | 13         | 1.27                                | 2              | 0.23                                | -         | -                                   | 1           | 0.17                                | -         | -                                   | 24         | 3.67                      |
| Canary Islands     | 9               | 2.01                                | 20         | 1.20                                | 5              | 0.32                                | 2         | 0.15                                | -           | -                                   | 2         | 0.07                                | 38         | 3.75                      |
| Cantabria          | 4               | 2.78                                | 2          | 0.28                                | -              | -                                   | 1         | 0.27                                | 1           | 0.19                                | 1         | 0.73                                | 9          | 4.26                      |
| Castilla-La Mancha | 14              | 2.90                                | 20         | 0.59                                | -              | -                                   | 3         | 0.09                                | 1           | 0.02                                | 3         | 0.21                                | 41         | 3.81                      |
| Castilla-León      | 15              | 2.32                                | 9          | 0.20                                | 1              | 0.12                                | 2         | 0.06                                | 3           | 0.21                                | -         | -                                   | 30         | 2.91                      |
| Catalonia          | 28              | 1.35                                | 71         | 1.40                                | 5              | 0.10                                | 57        | 0.85                                | 3           | 0.14                                | 17        | 0.57                                | 181        | 4.41                      |
| Valencia           | 27              | 1.97                                | 23         | 0.47                                | 3              | 0.09                                | 2         | 0.02                                | 3           | 0.10                                | 3         | 0.03                                | 61         | 2.68                      |
| Extremadura        | 8               | 2.80                                | 8          | 0.24                                | -              | -                                   | 2         | 0.16                                | 2           | 0.76                                | -         | -                                   | 20         | 3.96                      |
| Galicia            | 15              | 2.87                                | 20         | 0.76                                | -              | -                                   | 3         | 0.08                                | 1           | 0.07                                | 5         | 0.08                                | 44         | 3.86                      |
| Madrid             | 21              | 2.01                                | 39         | 0.83                                | 3              | 0.12                                | 3         | 0.12                                | 2           | 0.10                                | 7         | 0.30                                | 75         | 3.48                      |
| Murcia             | 10              | 2.11                                | 6          | 0.40                                | -              | -                                   | 8         | 0.71                                | 1           | 0.07                                | 2         | 0.07                                | 27         | 3.37                      |
| Navarra            | 5               | 2.28                                | 4          | 1.12                                | -              | -                                   | -         | -                                   | 1           | 0.03                                | 3         | 0.59                                | 13         | 4.01                      |
| Basque Country     | 11              | 2.15                                | 18         | 0.61                                | 3              | 0.24                                | 2         | 0.11                                | 4           | 0.38                                | 6         | 0.48                                | 44         | 3.97                      |
| La Rioja           | 2               | 2.17                                | 2          | 0.42                                | -              | -                                   | -         | -                                   | 1           | 0.58                                | -         | -                                   | 5          | 3.17                      |
| Ceuta and Melilla  | 4               | 3.10                                | -          | -                                   | -              | -                                   | -         | -                                   | -           | -                                   | -         | -                                   | 4          | 3.10                      |
| <b>TOTAL</b>       | <b>244</b>      | <b>2.11</b>                         | <b>315</b> | <b>0.75</b>                         | <b>25</b>      | <b>0.08</b>                         | <b>93</b> | <b>0.22</b>                         | <b>29</b>   | <b>0.13</b>                         | <b>58</b> | <b>0.23</b>                         | <b>764</b> | <b>3.53</b>               |

Sources: ESCRI 2008; MSPS 2010h.

**Fig. 5.2**

Beds in acute hospitals per 100 000 population in Spain and selected EU countries, 1990–2006/7

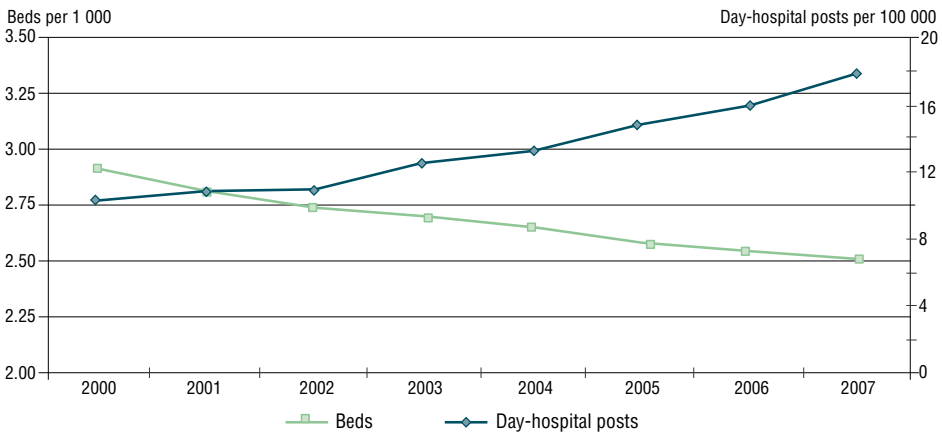


Source: WHO Regional Office for Europe 2009.

One of the factors affecting this reduction in acute beds is the progressive introduction of substituting day care for inpatient stays for certain surgical procedures, chemotherapies and dialysis among others. Fig. 5.3 illustrates this process for the SNS.

**Fig. 5.3**

Evolution of hospital beds and day-hospital posts\* in Spain, 2000–2007



Source: ESCRI 2008. Reproduced from MSPS 2010h.  
 Note: \* Structural capacity dedicated to day-care either medical or surgical.



## Capital stock and investment

The current hospital capacity in Spain is reasonably distributed (Table 5.6); Catalonia, Andalucía, Madrid and Valencia, the ACs with the biggest population covered (see Table 5.2 on p. 139), have the highest number of centres by any size category; nevertheless, there is an additional factor determining this relative abundance: the private sector has chosen to concentrate in certain ACs such as Catalonia and Madrid following market opportunities (see Table 5.4 above).

Most of the public centres have been either subject to in-depth refurbishment in recent years (especially the big university hospitals with more than 500 beds dating from the 1970s; see Chapter 2 *Organizational structure*) or are newly built. Information about the number, location and size of hospitals is available from the National Catalogue of Hospitals published annually by the MSPS. Table 5.6 summarizes the most recent figures.

**Table 5.6**

Size and distribution of hospitals and beds, 2008

| ACs                | Up to 99 beds |        | 100–199 beds |        | 200–499 beds |        | 500+ beds |        | TOTAL     |         |
|--------------------|---------------|--------|--------------|--------|--------------|--------|-----------|--------|-----------|---------|
|                    | hospitals     | beds   | hospitals    | beds   | hospitals    | beds   | hospitals | beds   | hospitals | beds    |
| Andalucía          | 49            | 2 238  | 22           | 2 986  | 20           | 5 716  | 13        | 11 490 | 104       | 22 430  |
| Aragón             | 11            | 454    | 10           | 1 418  | 6            | 1 483  | 2         | 2 107  | 29        | 5 462   |
| Asturias           | 8             | 408    | 5            | 655    | 6            | 1 795  | 1         | 1 324  | 20        | 4 182   |
| Balearic Islands   | 9             | 540    | 10           | 1 527  | 3            | 793    | 1         | 810    | 23        | 3 670   |
| Canary Islands     | 19            | 1 219  | 12           | 1 968  | 4            | 990    | 4         | 3 482  | 39        | 7 659   |
| Cantabria          | 2             | 54     | 4            | 477    | 2            | 681    | 1         | 955    | 9         | 2 167   |
| Castilla-La Mancha | 13            | 634    | 10           | 1 379  | 5            | 1 637  | 3         | 2 047  | 31        | 5 697   |
| Castilla- León     | 17            | 916    | 10           | 1 199  | 6            | 2 029  | 7         | 5 361  | 40        | 9 505   |
| Catalonia          | 90            | 4 138  | 70           | 9 709  | 36           | 11 355 | 10        | 8 060  | 206       | 33 262  |
| Valencia           | 23            | 1 110  | 15           | 2 130  | 17           | 5 185  | 6         | 4 552  | 61        | 12 977  |
| Extremadura        | 11            | 447    | 3            | 325    | 6            | 1 906  | 2         | 1 516  | 22        | 4 194   |
| Galicia            | 29            | 1 663  | 6            | 743    | 4            | 1 052  | 7         | 7 123  | 46        | 10 581  |
| Madrid             | 28            | 2 016  | 26           | 3 818  | 17           | 5 421  | 12        | 11 310 | 83        | 22 565  |
| Murcia             | 10            | 578    | 11           | 1 447  | 3            | 1 029  | 2         | 1 451  | 26        | 4 505   |
| Navarra            | 5             | 243    | 5            | 765    | 2            | 897    | 1         | 500    | 13        | 2 405   |
| Basque Country     | 21            | 1 195  | 12           | 1 623  | 8            | 2 683  | 3         | 2 858  | 44        | 8 359   |
| La Rioja           | 3             | 207    | 1            | 180    | 0            | 0      | 1         | 589    | 5         | 976     |
| Ceuta              | 1             | 50     | 1            | 163    | –            | –      | –         | –      | 2         | 213     |
| Melilla            | –             | –      | 1            | 172    | –            | –      | –         | –      | 1         | 172     |
| Spain              | 349           | 18 110 | 234          | 32 684 | 145          | 44 652 | 76        | 65 535 | 804       | 160 981 |

Source: MSPS 2009i.

Capital investments in the SNS have already been discussed in detail in Chapter 3, in terms of expenditure volume, trends and funding mechanisms. The role of the private sector in capital investments in the SNS has increased, although it still remains marginal. One of the first cases of public–private partnerships for investment in capital facilities was the Alzira hospital in Valencia. Other initiatives include a recently launched private financing initiative in the AC of Madrid to build eight new hospitals (for a full description see Chapter 4).

### Medical equipment, devices and aids

The purchasing of equipment in Spain is subject to the discrete decisions of policy-makers and not always well regulated. The impact capacity of HTA is expected to increase under the newly configured evaluation structure and the apparent changes in the political agenda of ACs and the CISNS (see *HTA* in Section 4.2 *Planning and health information management*).

Authorization to use certain techniques, technologies and procedures – in order to determine whether they can be included within the publicly funded services benefits package – was solely regulated until 2006 by Article 22 of the 16/2003 Cohesion and Quality of the SNS Act. In 2006, the CISNS approved the new services basket for the SNS and established the formal procedure for incorporating new technologies into this common benefits package (Royal Decree 1030/2006). The Decree establishes that brand new incorporations should go through a previous step of assessment by the National Agency for Health Technology Assessment in collaboration with the network of regional HTA agencies. The results of this assessment should be reported to the CISNS, which will have the final decision. As explained in Section 3.2 *Population coverage and basis for entitlement*, both the ACs and the national health administration are entitled to propose the inclusion of a new benefit; the initiative should be backed up with the corresponding technical and economic reports assessing the impact for the SNS. The Inter-ministerial Commission, comprising the representatives of the central ministries of Health and Economy and Treasury, as well as the Fiscal and Financial Policy Council (the economic authorities at regional and central level) participate in decision-making whenever the estimated budget impact of the new technology is high. Another trend that the Decree has consolidated is the concentration of highly technical services (certain types of surgery for example) in specific centres that provide very specialized types of care for the whole country, concentrating cases and the technology required; these reference centres, located in different ACs, serve the whole country (see *Regulating quality of care* in Section 4.1 *Regulation* for a thorough explanation).

Although access to diagnostic tests in primary care settings has increased and certain equipment has become widely available at this level of care (ophthalmoscopes, otoscopes, electrocardiograms, spirometers, x-rays), big-ticket technologies are not normally available and tend to be concentrated in specialized polyclinics or hospitals; nevertheless, GPs can prescribe some of them.

It should be mentioned that, given that the available source is the National Catalogue of Hospitals, population rates below (Table 5.7) relate to technology installed in centres qualified as or dependent on hospitals (be they public or private), and do not include those technologies that are within centres not recognized as hospitals (although their inclusion would not significantly vary the rates value).

**Table 5.7**

Items of functioning diagnostic imaging technologies per 1 000 population, 2005 and 2008

| Items                                        | 2005  | 2008  |
|----------------------------------------------|-------|-------|
| CAT (Computerized Axial tomography)          | 0.014 | 0.015 |
| MRI (Magnetic resonance imaging)             | 0.008 | 0.009 |
| GAM (Gammagraphy)                            | 0.005 | 0.005 |
| HEM (Haemodynamics)                          | 0.004 | 0.005 |
| DSA (Digital subtraction angiography)        | 0.003 | 0.004 |
| ESWL (Extracorporeal shock wave lithotripsy) | 0.002 | 0.002 |
| Cobalt Bomb (Cobalt beam therapy unit, CBTU) | 0.001 | 0.001 |
| ALI (Particle accelerator)                   | 0.003 | 0.004 |

Source: Based on MSPS 2009i.

The distribution of high-tech medical equipment across ACs is reflected in Table 5.8. Differences between regions in the availability of equipment are only partly justified by the volume of population covered; Madrid, in particular, followed by Catalonia, seems to have the highest amount of almost all types of equipment; as with the number of hospitals, the role of the private sector in increasing the relative availability of these technologies is relevant.

Over the last decade, the utilization of high technology has increased both in absolute figures and in terms of population rates (Table 5.9); the case of nuclear magnetic resonance (NMR) is particularly remarkable, with the use of the technology multiplying fivefold by the end of the observed period; most of this activity seems to be performed by the private sector, while the opposite is true for the rest of the technologies examined (Fig. 5.4).

**Table 5.8**

High-technology equipment per AC ranked by population, January 2008

| ACs                | CAT | MRI | GAM | HEM | DSA | ESWL | CBTU | ALI | Population |
|--------------------|-----|-----|-----|-----|-----|------|------|-----|------------|
| Andalucía          | 102 | 48  | 33  | 33  | 23  | 13   | 7    | 20  | 8 202 220  |
| Catalonia          | 92  | 52  | 40  | 33  | 27  | 18   | 12   | 27  | 7 364 078  |
| Madrid             | 98  | 97  | 50  | 46  | 34  | 13   | 6    | 36  | 6 271 638  |
| Valencia           | 75  | 48  | 26  | 23  | 22  | 9    | 2    | 22  | 5 029 601  |
| Galicia            | 48  | 33  | 13  | 14  | 13  | 5    | 2    | 11  | 2 784 169  |
| Castilla-León      | 33  | 19  | 7   | 6   | 6   | 3    | 0    | 3   | 2 557 330  |
| Basque Country     | 32  | 18  | 12  | 10  | 16  | 5    | 1    | 11  | 2 157 112  |
| Canary Islands     | 33  | 22  | 12  | 11  | 12  | 5    | 3    | 7   | 2 075 968  |
| Castilla-La Mancha | 38  | 22  | 12  | 8   | 6   | 4    | 1    | 10  | 2 043 100  |
| Murcia             | 21  | 15  | 3   | 5   | 6   | 1    | 0    | 3   | 1 426 109  |
| Aragón             | 22  | 12  | 7   | 6   | 6   | 2    | 2    | 3   | 1 326 918  |
| Extremadura        | 22  | 11  | 6   | 6   | 2   | 3    | 0    | 5   | 1 097 744  |
| Asturias           | 18  | 13  | 3   | 3   | 3   | 1    | 1    | 5   | 1 080 138  |
| Balearic Islands   | 20  | 14  | 5   | 8   | 7   | 5    | 1    | 3   | 1 072 844  |
| Navarra            | 10  | 6   | 4   | 3   | 3   | 3    | 1    | 7   | 620 377    |
| Cantabria          | 7   | 5   | 4   | 2   | 3   | 1    | 0    | 4   | 582 138    |
| La Rioja           | 4   | 3   | 2   | 1   | 1   | 1    | 0    | 2   | 317 501    |
| Ceuta              | 1   | 0   | 0   | 0   | 0   | 0    | 0    | 0   | 77 389     |
| Melilla            | 1   | 0   | 0   | 0   | 0   | 0    | 0    | 0   | 71 448     |
| Total              | 677 | 438 | 239 | 218 | 190 | 92   | 39   | 179 | 46 157 822 |

Source: MSPS 2010h.

**Table 5.9**

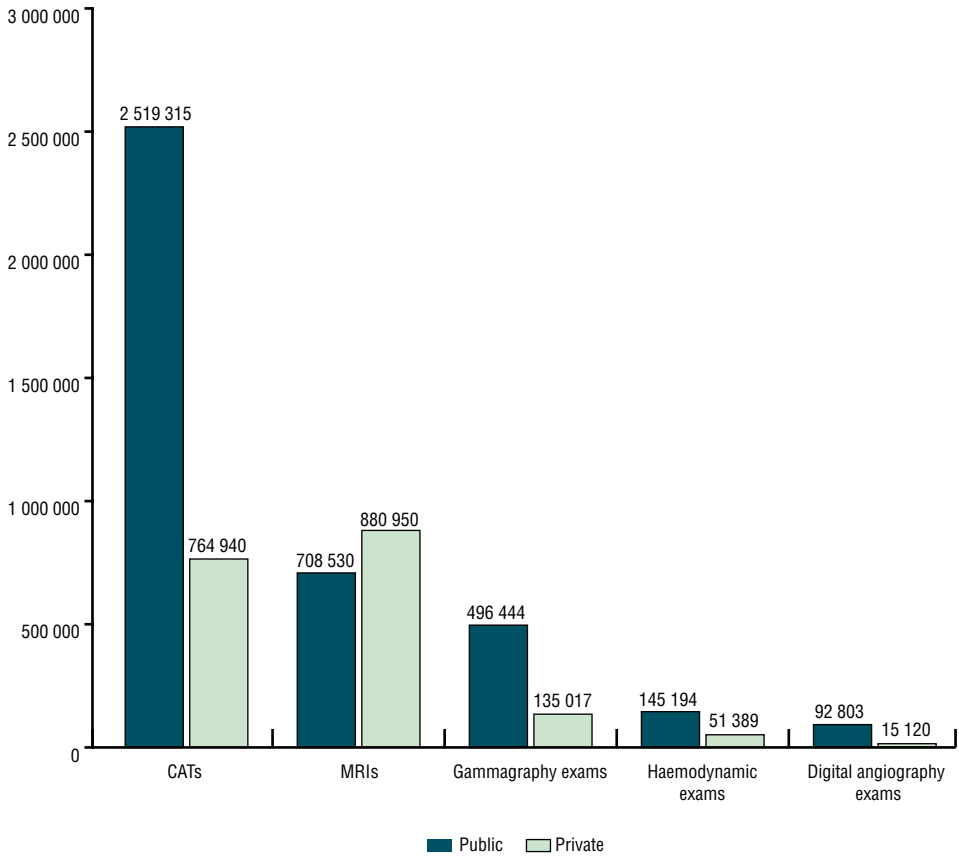
Evolution along time of utilization of selected high-technology tests and rates per 1 000 population

|                                    | 1997      | 1999      | 2001      | 2003      | 2005      | 2007      |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| CATs                               | 1 553 210 | 1 917 330 | 2 294 433 | 2 621 271 | 2 899 607 | 3 284 255 |
| NMRs                               | 319 165   | 530 738   | 723 794   | 1 070 926 | 1 328 506 | 1 589 480 |
| Haemodynamic exams                 | 84 033    | 107 916   | 130 369   | 147 547   | 179 151   | 196 583   |
| Digital angiography exams          | 94 635    | 109 015   | 101 920   | 105 673   | 109 805   | 107 923   |
| Gammagraphy exams                  | 488 704   | 522 083   | 535 250   | 603 721   | 626 352   | 631 461   |
| CATs per 1 000 pop.                | 39.2      | 48.0      | 56.3      | 62.4      | 66.8      | 73.2      |
| NMRs per 1 000 pop.                | 8.1       | 13.3      | 17.8      | 25.5      | 30.6      | 35.4      |
| Haemodynamic per 1 000 pop.        | 2.1       | 2.7       | 3.2       | 3.5       | 4.1       | 4.4       |
| Digital angiography per 1 000 pop. | 2.4       | 2.7       | 2.5       | 2.5       | 2.5       | 2.4       |
| Gammagraphy per 1 000 pop.         | 12.3      | 13.1      | 13.1      | 14.4      | 14.4      | 14.1      |

Sources: ESCRI 2008; MSPS 2010h.

**Fig. 5.4**

Diagnostic tests performed in the public and private sector, 2007



Sources: ESCRI 2008, MSPS 2010h.

Madrid, the Balearic Islands, Valencia, Navarra, Asturias and Galicia are the ACs performing the highest rate of NMRs and CTSs (computer tomography scans) per 1000 inhabitants; the rates per 1000 population performed by the private sector are also particularly high for these two diagnostic tests in the aforementioned ACs (Table 5.10).

**Table 5.10**

Diagnostic tests rates per 1 000 inhabitants across ACs performed in public and private sector in 2007

| AACC               |                       | Radio-<br>graphy | CATs  | NMRs  | Hemo-<br>dynamic angiography | Digital | Gamma-<br>graphy |
|--------------------|-----------------------|------------------|-------|-------|------------------------------|---------|------------------|
| Andalucía          | Public                | 754.9            | 55.5  | 15.4  | 4.4                          | 1.4     | 10.6             |
|                    | Private               | 132.5            | 8.1   | 10.5  | 0.5                          | 0.1     | 0.6              |
| Aragón             | Public                | 735.7            | 62.5  | 13.3  | 1.8                          | 0.7     | 12.1             |
|                    | Private               | 155.7            | 8.0   | 13.7  | 0.5                          | –       | 0.9              |
| Asturias           | Public                | 729.4            | 69.6  | 24.4  | 3.1                          | 0.9     | 4.7              |
|                    | Private               | 106.6            | 9.8   | 17.3  | 0.2                          | –       | 0.7              |
| Balearic Islands   | Public                | 534.6            | 41.6  | 10.2  | 1.7                          | 2.2     | 10.0             |
|                    | Private               | 310.2            | 36.0  | 39.6  | 1.3                          | 0.7     | 3.0              |
| Canary Islands     | Public                | 552.4            | 46.3  | 8.5   | 3.1                          | 2.4     | 15.6             |
|                    | Private               | 174.2            | 13.5  | 30.6  | 0.7                          | 0.6     | 5.3              |
| Cantabria          | Public                | 534.3            | 58.9  | 12.4  | 4.5                          | 0.9     | 15.9             |
|                    | Private               | 57.9             | 1.3   | 0.3   | –                            | –       | –                |
| Castilla-La Mancha | Public                | 668.3            | 57.3  | 9.3   | 4.2                          | 1.5     | 10.5             |
|                    | Private               | 49.3             | 6.5   | 6.4   | 0.2                          | –       | 0.2              |
| Castilla-León      | Public                | 747.2            | 66.5  | 23.8  | 1.9                          | 1.8     | 10.5             |
|                    | Private               | 95.9             | 8.1   | 16.7  | 0.2                          | –       | 2.8              |
| Catalonia          | Public                | 286.8            | 37.8  | 8.1   | 2.6                          | 2.1     | 6.1              |
|                    | Private               | 360.5            | 28.7  | 14.2  | 1.2                          | 0.6     | 3.0              |
| Valencia           | Public                | 664.2            | 61.2  | 25.5  | 4.5                          | 4.1     | 6.9              |
|                    | Private               | 107.1            | 15.9  | 21.1  | 3.0                          | 0.1     | 4.4              |
| Extremadura        | Public                | 631.2            | 49.8  | 16.0  | 2.3                          | 0.3     | 46.6             |
|                    | Private               | 47.1             | 4.5   | 3.4   | –                            | –       | 1.1              |
| Galicia            | Public                | 625.8            | 67.9  | 22.1  | 3.2                          | 2.4     | 8.4              |
|                    | Private               | 189.6            | 24.2  | 26.1  | 0.4                          | 0.1     | 6.9              |
| Madrid             | Public                | 546.5            | 62.1  | 21.5  | 2.6                          | 2.2     | 15.6             |
|                    | Private               | 235.2            | 27.1  | 44.3  | 1.2                          | 0.7     | 5.2              |
| Murcia             | Public                | 663.6            | 52.4  | 9.2   | 2.9                          | 0.6     | 11.7             |
|                    | Private               | 181.2            | 6.6   | 5.4   | 0.3                          | –       | –                |
| Navarra            | Public                | 428.1            | 66.3  | 19.1  | 2.3                          | 0.9     | 15.6             |
|                    | Private               | 154.6            | 39.5  | 21.5  | 13.0                         | 3.5     | 4.8              |
| Basque Country     | Public                | 602.4            | 79.6  | 9.2   | 3.0                          | 3.9     | 8.9              |
|                    | Private               | 144.8            | 14.4  | 18.4  | 1.6                          | 0.3     | 5.2              |
| La Rioja           | Public                | 647.9            | 22.7  | 13.0  | –                            | 2.2     | 9.3              |
|                    | Private               | 64.4             | 2.0   | 4.0   | –                            | –       | –                |
| Ceuta and Melilla  | Public                | 626.7            | 38.2  | –     | –                            | –       | –                |
|                    | Private               | –                | –     | –     | –                            | –       | –                |
| Total              | Public                | 592.4            | 56.1  | 15.8  | 3.2                          | 2.1     | 11.1             |
|                    | Private               | 182.0            | 17.0  | 19.6  | 1.1                          | 0.3     | 3.0              |
|                    | Standard deviation    | 93.48            | 18.17 | 14.79 | 3.15                         | 1.28    | 9.05             |
|                    | Mean                  | 760.01           | 71.31 | 32.62 | 4.26                         | 2.19    | 15.48            |
|                    | Variation coefficient | 12.30            | 25.49 | 45.35 | 73.85                        | 58.37   | 58.48            |

Sources: ESCRI 2008; MSPS 2010h.

Table 5.11 positions Spanish figures in the international context. Compared to the other European OECD countries, the SNS is below the average endowment per million habitants, in the area of France, Germany and the Nordic countries.

**Table 5.11**

Medical technology per million inhabitants in selected OECD countries, 2007

|                | MRI    | CT scanner | Radiotherapy | Lithotripters |
|----------------|--------|------------|--------------|---------------|
| Austria        | 17.7   | 29.8       | 4.6          | 1.9           |
| Belgium        | 7.5    | 41.6       | 6.4          | 4.6           |
| Denmark***     | 10.2   | 17.4       | 5.4          | –             |
| Finland        | 15.3   | 16.4       | 15.4         | 0.6           |
| France         | 5.7    | 10.3       | 6.1          | 1.5           |
| Germany        | 8.2    | 16.3       | 4.6          | 3.9           |
| Greece**       | 13.2** | 25.8**     | –            | 1.4**         |
| Iceland*       | 19.7*  | 26.3*      | 13.1*        | 3.3*          |
| Italy          | 18.6   | 30.3       | 3.8          | –             |
| Luxembourg     | 10.5   | 27.3       | 4.5          | 2.1           |
| Portugal       | 8.9    | 26.0       | 2.9          | 3.0           |
| Spain          | 9.3    | 14.6       | 3.8          | 2.0           |
| Sweden         | 7.9†   | 14.2†      | –            | –             |
| Switzerland    | 14.4   | 18.7       | 9.7          | 4.9           |
| United Kingdom | 5.6 e* | 7.6 e*     | 4.0e*        | –             |
| Average        | 11.8   | 22.0       | 6.5          | 2.7           |

Source: OECD 2009b.

Notes: e: Estimation; Data for the year 2007 was not available for all countries. Earlier years have been substituted where noted: \*2006, \*\*2005, \*\*\* 2004 and †1999; Average: calculations by the authors based on data from latest available year.

## Information technology

Most of the relevant aspects regarding the framing and development of IT in the SNS have already been outlined in *Information systems* in Section 4.2 *Planning and health information management* and notably related to the development of the SNS unique patient identifier and eCR.

It might be worth providing some flavour of the general use of IT in Spain in outlining the context for health and SNS IT use. The national survey on household IT equipment and IT use 2009 (INE 2010) reveals that 51.3% of Spanish households have a broadband Internet connection and the number of web users amounts to some 21 million among people aged 16–74.

There is an age gradient, clearly favouring younger groups below the age of 35 (Table 5.12); among the cohorts over 55 years old web users become a minority.

Among those using the Internet, 53.8% state that they use the Internet in seeking health-related information (more than 11 million people); across age groups, the majority of Internet users declare this use; only the group below 25 years old seems less keen on health-related use (though still 44% of users).

**Table 5.12**

Internet use and health-related Internet use, 2009

|                                                   | Use of Internet in the last 3 months (%) | Used to seek health-related information (%) |
|---------------------------------------------------|------------------------------------------|---------------------------------------------|
| Total                                             | 59.8                                     | 53.8                                        |
| <b>Age</b>                                        |                                          |                                             |
| 16–24 years old                                   | 92.3                                     | 44.0                                        |
| 25–34 years old                                   | 80.1                                     | 54.7                                        |
| 35–44 years old                                   | 68.2                                     | 59.3                                        |
| 45–54 years old                                   | 54.9                                     | 56.5                                        |
| 55–64 years old                                   | 29.1                                     | 52.3                                        |
| 65–74 years old                                   | 11.0                                     | 53.3                                        |
| <b>Size of municipality of residence</b>          |                                          |                                             |
| Municipalities with more than 100 000 inhabitants | 65.5                                     | 54.2                                        |
| 50 000–100 000 inhabitants                        | 61.1                                     | 52.4                                        |
| 20 000–50 000 inhabitants                         | 60.9                                     | 54.4                                        |
| 10 000–20 000 inhabitants                         | 55.7                                     | 54.2                                        |
| Fewer than 10 000 inhabitants                     | 49.9                                     | 52.7                                        |

Source: INE 2010.

Investment in IT has accelerated in recent years, greatly fuelled by the national plan “*Avanza*” (2005–2008) and its continuation (launched in 2009) “*Avanza2*” (Ministry of Industry, Tourism and Commerce 2010); this plan, under the direction of the Ministry of Industry, Tourism and Commerce (MITC), has the broad goal of developing the information and knowledge society. One of its actions within the line of development of digital public services is the programme Health Care Online (*Sanidad en línea*), sustained by a framework agreement with the MSPS.<sup>3</sup> The programme has allowed for co-funding of the ACs’ IT infrastructure and developments, as well as for the progress of the SNS

3 As already mentioned in Chapter 4, the National Quality Plan includes the Health Care Online programme among its strategies.



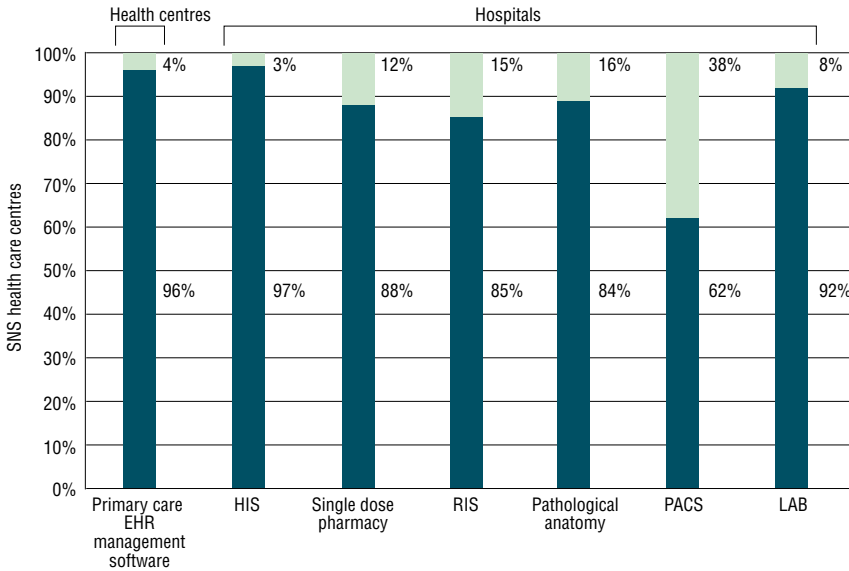
central node of information, making possible the implementation of the SNS unique patient identifier and electronic health record. The total budget for the first phase of Health Care Online (MITC, MSPS and ACs) amounted to €252 million, deployed from 2006 to 2008. The second phase, signed in July 2009, with a duration of three years, is endowed with an investment of €101.60 million from the central administration (€55 million from MITC and €46.6 million from MSPS). As in the previous phase, participation by ACs is voluntary, their contribution is estimated at a further €93.60 million over the period, yielding a total budget of €195.20 million up to December 2012 (Ministry of Industry, Tourism and Commerce 2009).

The assessment of phase I of the Health Care Online programme was published in 2009 by MSPS and Red.es, the organization within the Secretary of State for Telecommunications and Information Society that manages the plan “*Avanza*”. A progress update was released in January 2010 (Red.es & MSPS 2010). Those are the most reliable data about installed capacity and use of information and communication technologies (ICT) in the SNS. These reports present a series of indicators for the monitoring of progress, clustered to assess infrastructure and information systems on the one hand, and implementation of e-health services on the other. Fig. 5.5 shows the degree of implementation of the main health information systems in the SNS. At primary care level, the eCR is available in 96% of the centres. Regarding hospitals, 97% of the SNS centres have a health information system enabling management of beds, admissions, ambulatory care appointments, medical records, schedules, surgical theatres and emergencies. Similarly, more than 90% of hospitals have a laboratory information system (LAB) and around 85% have a management system for radiology (RIS), pathology and single-dose pharmacy; systems for storage of digital images (picture archiving and communications system, PACS) are less widely available, and are installed in only 62% of the SNS hospital network.

Fig. 5.6 shows data on the proportion of the activity carried out by the SNS that is supported by health information system – that is, the percentage of appointments with GPs and specialists, laboratory tests and emergencies managed with information system aids. For the ACs that provided data (for exclusions see the notes under Fig. 5.6), the percentage in all these activities was close to 100% in 2007.

**Fig. 5.5**

Implementation of the main health care information systems in the SNS, 2007<sup>a</sup>

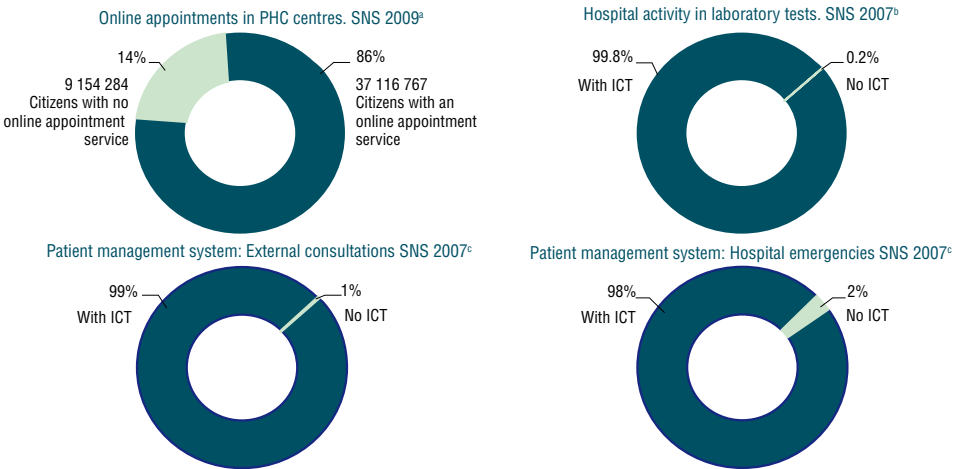


Source: Reproduced from Red.es & MSPS 2009.

Notes: EHR: Electronic health record; HIS: Health information systems; <sup>a</sup>The following information from Andalucía is not represented in this figure: hospitals with pathology, single-dose pharmacy, LAB, PACS and RIS. In Catalonia out of a total of 61 hospitals, only the information of the 8 belonging to the ICS is shown.

**Fig. 5.6**

Percentage of SNS activity supported by IT aids and information systems



Sources: Modified from Red.es & MSPS 2009, based on information directly provided by health departments in ACs;

<sup>a</sup>Extracted from Red.es & MSPS 2010, based on information directly provided by health departments in ACs.

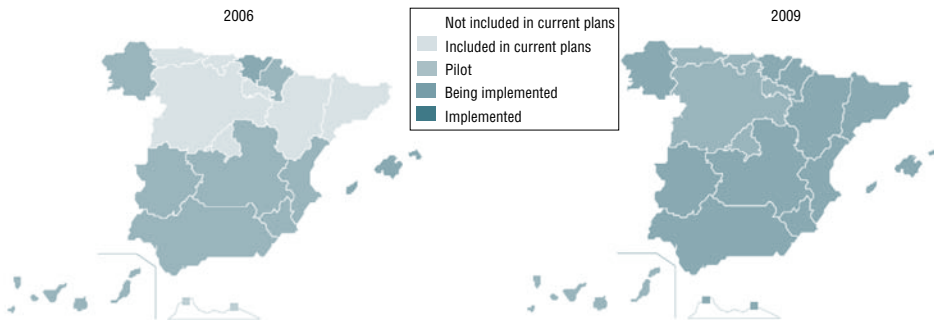
Notes: PHC: Primary health care; <sup>b</sup>Information from Andalucía, Region of Valencia, La Rioja, Galicia and Cantabria has not been included in the figure; <sup>c</sup>Information from Andalucía, Region of Valencia and La Rioja has not been included in the figure.



Progress in the implementation of e-health records, allowing for integrated care (primary care, specialized ambulatory care and tests), has been faster, as depicted in Fig. 5.9; in 2006, all ACs were already working on it; many piloting, some at roll-out phase; by 2009 it was fully implemented in most of the territory, with only five ACs finishing the roll-out.

**Fig. 5.9**

Implementation status of the e-health records in health centres, 2006 and 2009

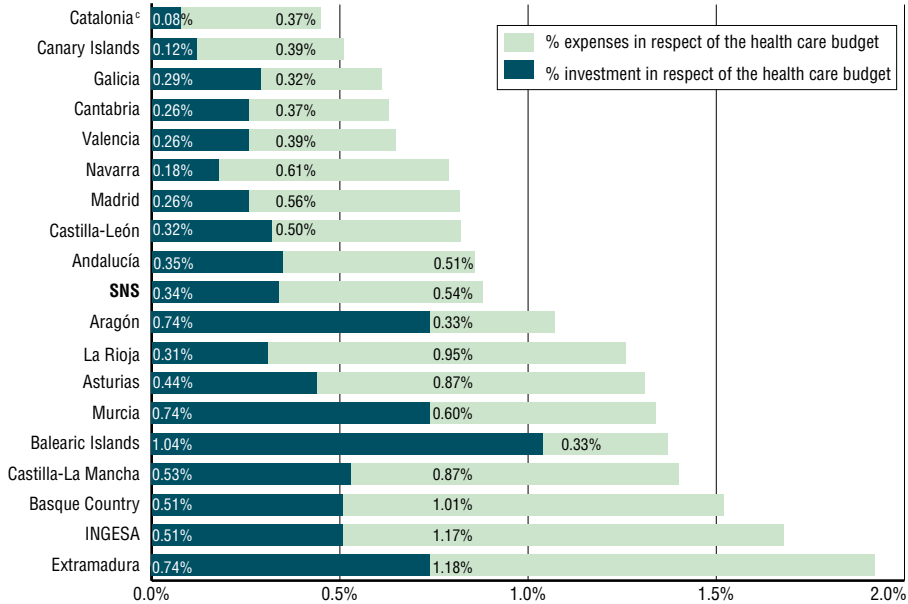


Source: Reproduced from Red.es & MSPS 2010, based on information directly provided by health departments in ACs.

This fast progress in the development and use of ICT solutions was supported by a budgetary effort; the total expenditure on ICT across ACs in the period 2004–2007 ranged from 1.2% of health care expenditure in Extremadura or INGESA (Ceuta and Melilla) to 0.4% in Catalonia or the Canary Islands, with the overall SNS figure sitting at around 0.5% of total expenditure. In terms of budget percentage, the Balearic Islands top the ranking with 1% of its budget devoted to ICT, followed by Aragón, Extremadura and Murcia with over 0.7%, the SNS total being half of that figure (Fig. 5.10a). In the period 2008–2009 the total SNS investment and expenditure on ICT grew 23% (Fig. 5.10b); in relative terms, 2009 ICT investment amounted to 0.35% of the total SNS budget and 0.57% corresponded to current expenditure amenable to ICT.

**Fig. 5.10a**

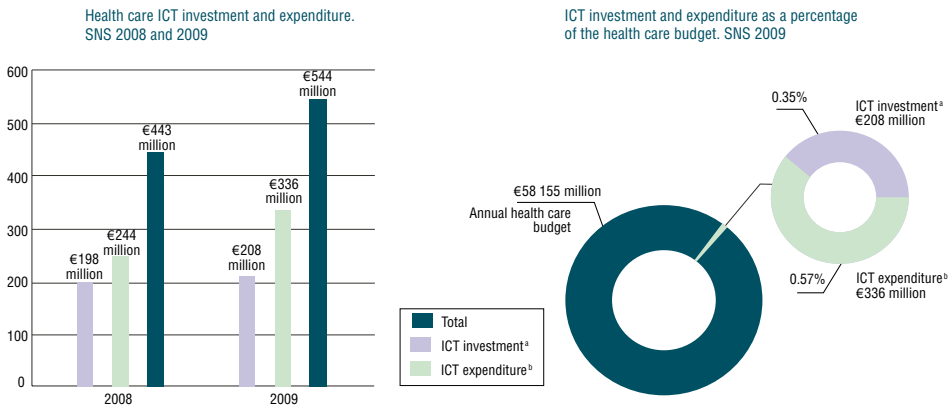
Percentage of ICT investment<sup>a</sup> and expenses in the ACs' health care budget, 2004–2007<sup>b</sup>



Source: Reproduced from Red.es & MSPS 2009, based on information directly provided by health departments in ACs.  
 Notes: <sup>a</sup> 2006 and 2007 investment figures include investment by the programme Health Care Online; <sup>b</sup> Expenditure figures for the years 2004–2005 in Cantabria and Galicia are not available; <sup>c</sup> Information provided refers only to the ICS.

**Fig. 5.10b**

ICT investment and expenditure in total health care budget, 2008–2009



Source: Reproduced from Red.es & MSPS 2010, based on information directly provided by health departments in ACs.  
 Notes: <sup>a</sup> ICT investment includes regional health services' investment in hardware, roll-out and management of network electronics, as well as developments and purchasing of licences; <sup>b</sup> ICT expenditure includes hiring computer equipment, technical support, cost of maintaining the hardware installed in health care centres and central services of the regional health services, ICT personnel expenses (regional health services' own employees who carry out work associated with the implementation, maintenance or management of this type of technology and/or its content).

The report issued by Red.es and the MSPS in 2009 and its update in 2010 (Red.es & MSPS 2009, 2010), which have served as the basis for the above account of the progress of SNS in the field of ICT, were welcomed as a useful transparency exercise; the report laid the basis for regular monitoring, listing a set of indicators suitable for regular data collection, integrated into a wider set already regularly updated and made web-available by the Secretary of State for Telecommunications and Information Society for other sectors of the economy.<sup>4</sup> However, the limited availability of updated data raises fears that this may turn out to be a one-off initiative. It is probably fair to acknowledge that the work of the Sub-commission on Information Systems of the CISNS described in Section 4.2 *Planning and health information management* is actually performing a monitoring function; however, the wealth of data issued is not outstanding when it comes to AC-level analysis; as argued across the previous chapters, ACs tend to be reluctant to be exposed to systematic benchmarking and the consensus-building mechanisms within CISNS sometimes hamper the disclosure of this type of data for the sake of progress in policy coordination. On a positive note, the mentioned continuation of the Health Care Online Programme, just renewed till the end of 2013, also involves assessment reports; this may once again drive forward systematic data disclosure.

In addition, it might be worth highlighting specific IT developments which support relevant lines of work such as prescription improvement and patient safety.

According to the Observatory of the SNS (MSPS 2010h), all ACs report progress in pharmaceutical policy linked to enhancement of information systems. Electronic prescription has been assessed as key to achieving the objectives of prescription of generics and avoiding adverse interactions through automatic advice and warning for the prescriber embedded in the system in several ACs (Aragón, the Balearic Islands, Cantabria, Castilla-La Mancha, Extremadura, Galicia, Madrid, the Basque Country, La Rioja, and Ceuta and Melilla). The implantation of computer-assisted prescription systems or e-prescriptions is at different stages among them and in many cases is still in a pilot phase.

The IT line of work supporting the national strategy for patient safety is aimed at developing adverse events reporting systems that can feed information back into the system to determine the causes and solve them. This project is at a very preliminary stage, in which a prototype reporting system has been designed and is being piloted in two hospitals. The design is based on an extensive review of the legal framework and structured expert consultation, including both IT and clinical experts, as well as patients.

---

4 National Observatory of Telecommunications and Information Society (<http://www.ontsi.red.es/index.action>).

## 5.2 Human resources

### Trends in health care personnel

Table 5.13 shows the evolution of health care personnel in Spain for the last 25 years according to WHO. As in most of the European countries, the numbers in all categories of health professionals per 100 000 people have increased over time; it is worth noting the expansion in Spain of certain groups of professionals, such as nurses, dentists or pharmacists (which have multiplied their availability several times over in the context of a growing population), compared to the relative stability of physicians. This phenomenon reflects well how those professionals' role has increased in the services offered by modern health systems and thus in the SNS.

**Table 5.13**

Health care personnel in Spain per 100 000 population, 1980–2007, selected years

|                                               | 1980  | 1990  | 1995  | 2000  | 2001  | 2003  | 2004  | 2005  | 2006  | 2007  |
|-----------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Physicians                                    | n/a   | 369.8 | 247.4 | 316.4 | 307.5 | 322.1 | 337.3 | 376.7 | 368.6 | 375.6 |
| Physicians, medical group of specialties (PP) | n/a   | 30.9  | 33.4  | 39.7  | 39.7  | 43.5  | 45.3  | 46.3  | 48.0  | n/a   |
| Dentists (PP)                                 | 10.5  | 26.6  | 35.7  | 43.7  | 45.6  | 47.3  | 49.3  | 51.0  | 53.7  | 56.2  |
| Pharmacists (PP)                              | 62.1  | 59.0  | 63.5  | 81.2  | 100.9 | 85.2  | 86.0  | 94.7  | 92.0  | n/a   |
| Nurses (PP)                                   | 316.2 | 406.8 | 576.9 | 642.2 | 663.6 | 750.4 | 743.7 | 741.5 | 743.7 | n/a   |

Source: WHO Regional Office for Europe 2009.

Note: PP: Physical persons.

Nationally available figures differ slightly from those provided by WHO; this is due to the quicker update of national sources compared to international sources, but also to some differences in the specification of the indicators. The methods for counting the stock of professionals are particularly sensitive in the Spanish case, because there is no central registry of health professionals. The Human Resources Commission of the SNS (created under the auspices of the CISNS) started to develop the National Registry of Health Professionals in 2007 to tackle this problem. The basis for such a national registry ought to be the corresponding regional registries, building up to the national system. Those three years have witnessed some progress in several ACs, however, the national level has not yet been accomplished. In the absence of this to-be reliable source, the estimates available are based on three alternative approaches.

*Relying on the existing compulsory college registration for professionals.* The main caveat is that in Spain this would only apply to the medical profession, since it is voluntary for all the rest, with varying levels of affiliation; furthermore, even for doctors, it would not yield a complete account because in a few ACs doctors are not obliged to register. Even where that obligation exists, the colleges' registries are quite limited, providing no information on the activity status of the registered doctor.

*Relying on payroll data, counting the professionals employed by each of the regional health services.* The main problem with this method is that while it would give information about availability, it would be strictly about the workforce engaged by each of the regional health services; as a result, all doctors employed exclusively by the private sector or working on their own will pass unnoticed.<sup>5</sup>

The third approach, and so far that preferred by official accounts, uses a *combination of regularly collected sources*. One is the SNS Information System for Primary Care (SIAP; the assumption that this source captures most of the reality is quite likely given the absolute predominance of the public sector in this level of care); for hospital-based care, both ambulatory and inpatient, the source would be the National Survey of Inpatient Care Premises (ESCRI), which is compulsory for hospitals, either public or private, across the country. The latter presents some risk of double counting, especially for doctors, since specialists in the public sector often also work in private hospitals, and they cannot be distinguished in the resources account. The other potential bias is the absence of those professionals who work in ambulatory private centres with no link to hospitals, though these numbers are likely to be very low. The ESCRI is also limited in that it only includes doctors, nurses and nurse associate professionals. For other health professionals, for example dentists or pharmacists, the source has to be the corresponding college.

In summary, at this stage, the third approach, based on combining sources, seems to give the most reliable estimate of data of human resources in health in Spain. Table 5.14 shows the mix of professionals in primary health care for 2008 across the SNS. Differences among ACs relate mainly to the ratio of protected population per nurse (ranging from around 1200 in Castilla-La Mancha to close to 2000 in Madrid) and regarding administrative and ancillary

5 The same method (payroll) for the private sector presents two complications, especially, but not only, regarding the medical profession: first, a big proportion of the medical resources would actually be employees of the public sector also working in the private sector (double counting); second, the variety of contractual formulas and relation arrangements in the private sector makes possible for a substantial proportion of the professionals working in a centre not to be on the payroll of the hospital, but providing services at the premises under an agreement with an insurance company.



personnel (national rate around 3000 per professional, varying between the 2500 individuals in Navarra and the 4700 in La Rioja); it should be noted that general regulation (linked for instance to the definition of BHZs in each AC) is less strict in defining ratios for these types of professionals compared to GPs or paediatricians. There is a pattern showing Castilla-La Mancha as the region with the smallest numbers of population assigned per GP (939) and per primary care nurse (1165), and the Balearic Islands as the one with the highest rates per professional (clearly for GPs, with almost 1700, and among the biggest for nurses, with some 1900 people per professional, surpassed only by Madrid and Valencia). When it comes to paediatricians, Asturias seems to have the smallest population per doctor (779); Catalonia is at the other end of the spectrum with 1180. Factors such as dispersion and evolution of the share of population of paediatric age should be considered in analysing these variations.

Table 5.15 reflects the human resources for hospital care, specifying the figures corresponding to professionals working in the SNS and the total (which includes private sector professionals). The weight of public sector employees is prominent in all ACs, with private sector professionals being only marginal to the total number of professionals per 1000 population in any category. The national figure for specialist doctors is 1.70 per 1000 population (range running from 1.41 in Andalucía to 2.22 in Navarra), while the rate for nurses in hospitals scores 2.93 (with a high range of variation of almost 2 points between Andalucía and Navarra). Table 5.16 shows the relative distribution of specialties among doctors working in hospital care.

In comparison with central European and Mediterranean countries, or with the United Kingdom, the relative number of doctors in Spain has been recovering from the mid-1990s to become in recent years one of the highest, well above EU average and second only to Italy (Fig. 5.11). The same is true for the number of nurses (Fig. 5.12), the progression being even steeper, with Spain displaying figures close to France and Germany, converging to the EU average.

**Table 5.14**  
SNS human resources in primary health care and ratio of protected population assigned per professional, 2008

|                    | GPs    | Population assigned per GP | Paediatricians | Population assigned per paediatrician | Nurses | Population assigned per nurse | Non-health professionals | Population assigned per non-health professional |
|--------------------|--------|----------------------------|----------------|---------------------------------------|--------|-------------------------------|--------------------------|-------------------------------------------------|
| Andalucía          | 4 755  | 1 442                      | 1 110          | 1 069                                 | 4 257  | 1 890                         | 6 096                    | 2 838                                           |
| Aragón             | 959    | 1 229                      | 163            | 997                                   | 920    | 1 458                         | 401                      | 4 078                                           |
| Asturias           | 657    | 1 481                      | 128            | 779                                   | 707    | 1 516                         | 420                      | 3 219                                           |
| Balearic Islands   | 517    | 1 685                      | 136            | 1 059                                 | 536    | 1 894                         | 331                      | 3 691                                           |
| Canary Islands     | 1 079  | 1 519                      | 295            | 974                                   | 1 118  | 1 723                         | 653                      | 3 568                                           |
| Cantabria          | 365    | 1 361                      | 73             | 1 035                                 | 376    | 1 522                         | 211                      | 3 407                                           |
| Castilla-La Mancha | 2 379  | 939                        | 301            | 901                                   | 2 104  | 1 165                         | 1 153                    | 3 326                                           |
| Castilla-León      | 1 382  | 1 276                      | 239            | 1 041                                 | 1 454  | 1 376                         | 722                      | 3 379                                           |
| Catalonia          | 4 270  | 1 474                      | 993            | 1 180                                 | 4 750  | 1 572                         | 3 154                    | 2 575                                           |
| Valencia           | 2 632  | 1 555                      | 738            | 994                                   | 2 492  | 1 936                         | 2 634                    | 3 080                                           |
| Extremadura        | 803    | 1 199                      | 132            | 969                                   | 886    | 1 218                         | 440                      | 3 954                                           |
| Galicia            | 1 845  | 1 347                      | 360            | 900                                   | 1 760  | 1 574                         | 1 110                    | 2 880                                           |
| Madrid             | 3 509  | 1 541                      | 867            | 1 044                                 | 3 239  | 1 948                         | 2 418                    | 4 006                                           |
| Murcia             | 812    | 1 466                      | 232            | 972                                   | 779    | 1 814                         | 567                      | 3 633                                           |
| Navarra            | 370    | 1 418                      | 95             | 977                                   | 437    | 1 413                         | 250                      | 2 470                                           |
| Basque Country     | 1 292  | 1 563                      | 288            | 905                                   | 1 334  | 1 709                         | 886                      | 2 573                                           |
| La Rioja           | 220    | 1 251                      | 40             | 950                                   | 204    | 1 535                         | 102                      | 4 673                                           |
| INGESA             | 67     | 1 550                      | 25             | 1 068                                 | 80     | 1 632                         | 58                       | 3 957                                           |
| Total              | 27 911 | 1 410                      | 6 215          | 1 029                                 | 27 433 | 1 663                         | 21 606                   | 3 102                                           |

Source: MSPS 2008c.

**Table 5.15**  
Human resources in hospital health care and ratio per 1 000 inhabitants, 2007

|                    | Doctors          |        |       | Nurses           |         |         | Nurse associated professionals |        |        | Non-health care professionals |       |        |         |         |       |       |
|--------------------|------------------|--------|-------|------------------|---------|---------|--------------------------------|--------|--------|-------------------------------|-------|--------|---------|---------|-------|-------|
|                    | per 1 000 inhab. |        |       | per 1 000 inhab. |         |         | per 1 000 inhab.               |        |        | per 1 000 inhab.              |       |        |         |         |       |       |
|                    | Public-SNS       | Total  | Ratio | Public-SNS       | Total   | Ratio   | Public-SNS                     | Total  | Ratio  | Public-SNS                    | Total | Ratio  |         |         |       |       |
| Andalucía          | 10 315           | 11 223 | 1.29  | 18 980           | 20 759  | 2.38    | 2.60                           | 14 904 | 17 307 | 1.87                          | 2.17  | 69 729 | 81 189  | 8.73    | 10.16 |       |
| Aragón             | 2 514            | 2 695  | 1.95  | 2.10             | 4 446   | 4 762   | 3.46                           | 3.70   | 3 721  | 4 242                         | 2.89  | 3.30   | 15 982  | 17 991  | 12.43 | 13.99 |
| Asturias           | 2 009            | 2 168  | 1.90  | 2.05             | 3 126   | 3 317   | 2.95                           | 3.13   | 2 613  | 2 903                         | 2.47  | 2.74   | 12 110  | 13 374  | 11.44 | 12.63 |
| Balearic Islands   | 1 621            | 1 949  | 1.58  | 1.90             | 3 053   | 3 836   | 2.97                           | 3.73   | 2 742  | 3 472                         | 2.67  | 3.38   | 11 110  | 15 342  | 10.80 | 14.92 |
| Basque Country     | 2 971            | 3 273  | 1.40  | 1.54             | 4 729   | 5 573   | 2.22                           | 2.62   | 3 658  | 4 656                         | 1.72  | 2.19   | 16 441  | 21 279  | 7.72  | 9.99  |
| Canary Islands     | 2 654            | 3 279  | 1.31  | 1.62             | 4 993   | 5 894   | 2.47                           | 2.92   | 4 551  | 6 009                         | 2.25  | 2.98   | 19 096  | 24 245  | 9.46  | 12.01 |
| Cantabria          | 986              | 1 040  | 1.74  | 1.83             | 1 749   | 1 859   | 3.08                           | 3.28   | 1 504  | 1 814                         | 2.65  | 3.20   | 6 281   | 7 158   | 11.08 | 12.62 |
| Castilla-León      | 3 948            | 4 141  | 1.58  | 1.66             | 7 025   | 7 510   | 2.82                           | 3.01   | 5 132  | 5 857                         | 2.06  | 2.35   | 24 570  | 28 051  | 9.86  | 11.26 |
| Castilla-La Mancha | 3 097            | 3 205  | 1.59  | 1.64             | 5 364   | 5 604   | 2.75                           | 2.87   | 4 310  | 4 550                         | 2.21  | 2.33   | 20 544  | 22 184  | 10.53 | 11.37 |
| Catalonia          | 13 424           | 14 657 | 1.87  | 2.05             | 17 852  | 21 351  | 2.49                           | 2.98   | 12 381 | 18 210                        | 1.73  | 2.54   | 64 551  | 85 114  | 9.01  | 11.88 |
| Valencia           | 6 848            | 7 470  | 1.42  | 1.55             | 11 145  | 12 385  | 2.31                           | 2.57   | 8 328  | 9 727                         | 1.73  | 2.02   | 38 174  | 46 054  | 7.91  | 9.55  |
| Extremadura        | 1 738            | 1 791  | 1.61  | 1.66             | 2 743   | 2 860   | 2.55                           | 2.66   | 2 479  | 2 612                         | 2.30  | 2.43   | 11 217  | 12 160  | 10.42 | 11.29 |
| Galicia            | 4 306            | 4 631  | 1.58  | 1.70             | 7 756   | 8 419   | 2.84                           | 3.09   | 6 114  | 6 966                         | 2.24  | 2.55   | 27 935  | 32 036  | 10.24 | 11.74 |
| Madrid             | 9 570            | 10 584 | 1.57  | 1.73             | 16 506  | 19 275  | 2.70                           | 3.15   | 12 602 | 15 933                        | 2.06  | 2.61   | 60 869  | 77 835  | 9.96  | 12.74 |
| Murcia             | 2 043            | 2 179  | 1.47  | 1.57             | 3 597   | 3 983   | 2.58                           | 2.86   | 3 083  | 3 707                         | 2.21  | 2.66   | 12 963  | 15 562  | 9.31  | 11.18 |
| Navarra            | 967              | 1 334  | 1.61  | 2.22             | 1 641   | 2 612   | 2.73                           | 4.35   | 1 197  | 1 908                         | 1.99  | 3.18   | 5 823   | 8 911   | 9.70  | 14.84 |
| La Rioja           | 506              | 518    | 1.64  | 1.67             | 934     | 964     | 3.02                           | 3.12   | 723    | 771                           | 2.34  | 2.49   | 3 378   | 3 563   | 10.92 | 11.52 |
| INGESA             | 225              | 225    | 1.61  | 1.61             | 419     | 419     | 2.99                           | 2.99   | 323    | 323                           | 2.30  | 2.30   | 1 614   | 1 614   | 11.51 | 11.51 |
| Total              | 69 742           | 76 362 | 1.55  | 1.70             | 116 058 | 131 382 | 2.59                           | 2.93   | 90 365 | 110 967                       | 2.01  | 2.47   | 422 387 | 513 662 | 9.41  | 11.45 |

Source: ESORI 2007.

**Table 5.16**

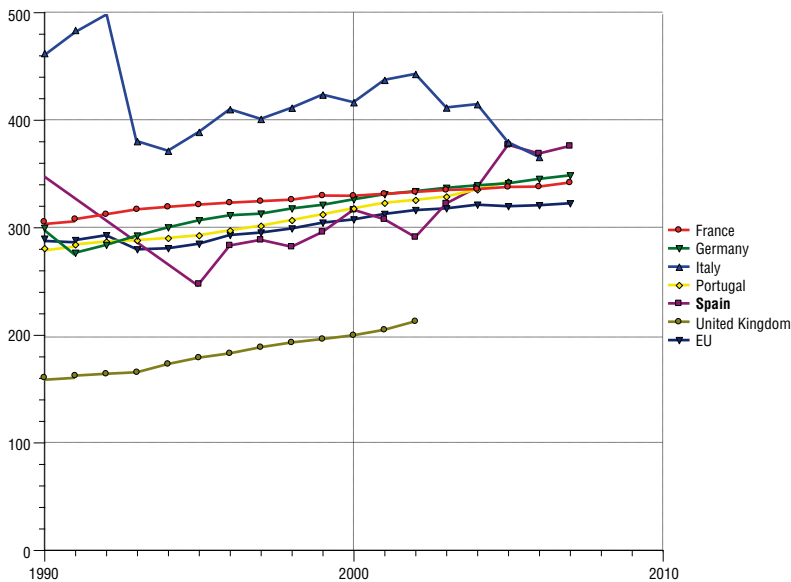
Relative distribution of specialties among doctors working in hospital health care

| Specialty                                  | % over total doctors working at hospitals |
|--------------------------------------------|-------------------------------------------|
| Internal medicine and medicine specialties | 27.1                                      |
| Central services                           | 21.4                                      |
| General surgery and surgical specialties   | 16.8                                      |
| Obstetrics and gynaecology                 | 5.8                                       |
| Orthopaedics                               | 6.0                                       |
| Paediatrics                                | 4.7                                       |
| Psychiatry                                 | 4.1                                       |
| Other specialties                          | 14.1                                      |

Source: ESCRI 2007.

**Fig. 5.11**

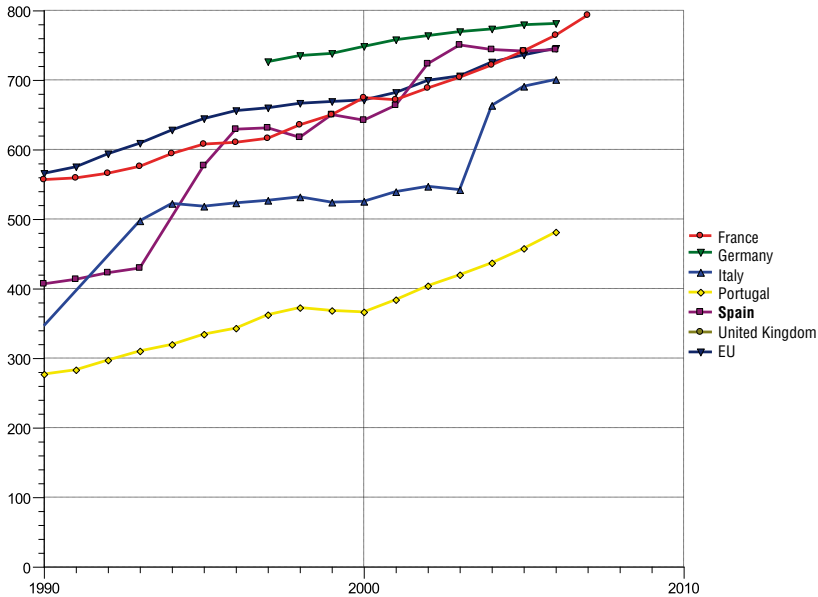
Active doctors per 100 000 population in Spain and selected other countries, 1990–2007 or latest available year



Source: WHO Regional Office for Europe 2009.

**Fig. 5.12**

Active nurses per 100 000 population in Spain and selected other countries, 1990–2007 or latest available year



Source: WHO Regional Office for Europe 2009.

The ratio of physicians to nurses is illustrated in Fig. 5.13. While countries such as Norway or the Netherlands show a similar relative number of doctors compared to Spain, they seem to be far ahead in the number of nurses, with the Spanish system still being more “doctor-centric” than those of other countries.

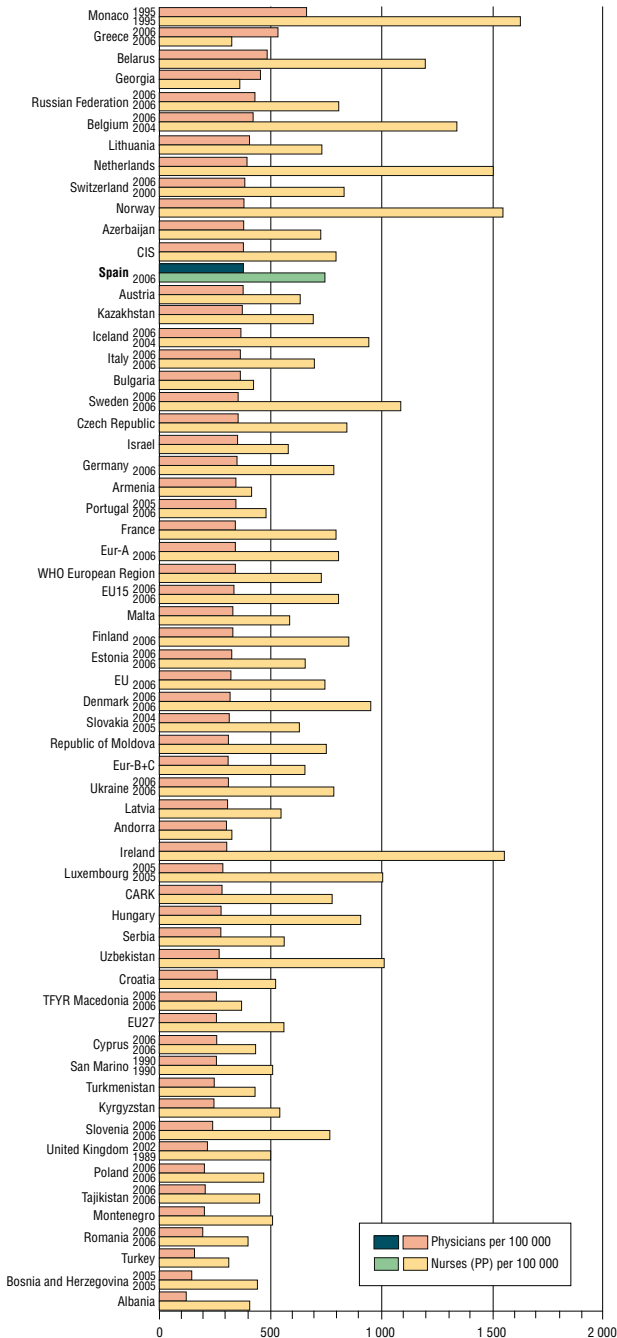
Regarding other professionals such as dentists, Fig. 5.14 shows the upwards trend in the numbers; however, the rate is still one of the lowest, scoring well below EU average. Nevertheless, it should be recalled the cautions expressed above as to the reliability of these data, which are often based on non-compulsory professional college registration.

The latest data available in Spain according to the INE yield 0.5 registered dentists per 1000 population and 1.4 pharmacists per 1000 population up to December 2007.

Data for other relevant health professionals, such as midwives, physiotherapists, clinical psychologists and other therapists, are unfortunately not available for reporting.

**Fig. 5.13**

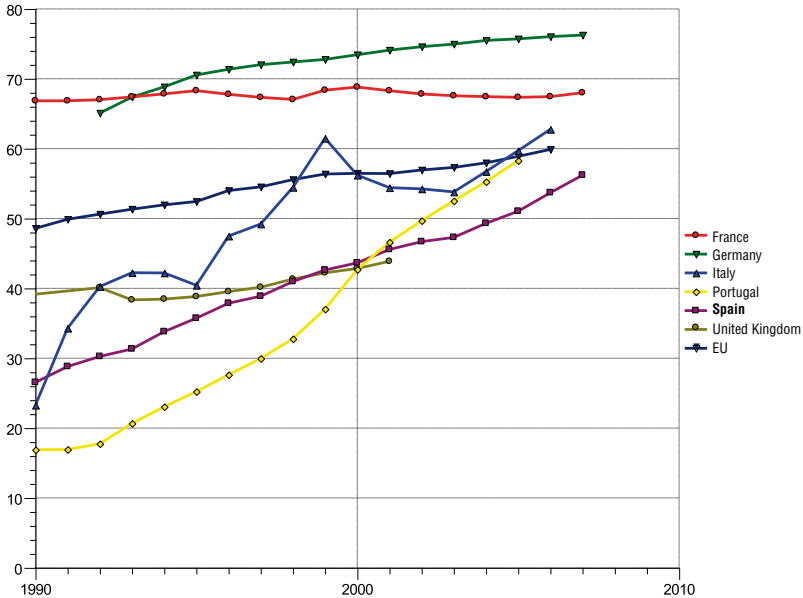
Number of active doctors and nurses per 100 000 population, 2007 or latest available year



Source: WHO Regional Office for Europe 2009.

**Fig. 5.14**

Number of active dentists per 100 000 population, 2007 or latest available year



Source: WHO Regional Office for Europe 2009.

## Planning of health care personnel

As in many other European countries, recent years have witnessed a shift in planning focus; the issue in the 1980s, and well into the 1990s, was restricting the number of trained professionals. The quite young workforce populating the new SNS, mainly engaged as statutory personnel or civil servants, acted in fact as a bottleneck for the following late baby-boomer cohorts of health professionals that the system could not absorb (as an example, there were some 20 000 doctors out of work in Spain at the end of the 1980s); thus Spain has been for a while a net supplier of doctors and nurses for countries such as the United Kingdom and Portugal; cohorts of new professionals were subject to a strict “*numerus clausus*” policy, drastically reducing the number of positions for training at health sciences schools (especially for doctors and physiotherapists) and for specialization programmes (MIR for doctors, PIR for clinical psychologists, FIR for clinical pharmacetics and BIR for medical biologists); on the other hand, the expected pay-off of the effort invested

in such a hard long training became less appealing given the lack of clear prospects once it was completed; as a consequence, surprisingly unforeseen by the planning authority, characterized by a short-term view, the situation 20 years later has reversed, with the bottleneck generation starting to head into retirement and insufficient replacements readily available emerging from health sciences schools and specialization trainings; thus, for most of the last decade, the shortage of health professionals has become the dominant issue.

There are two obvious stakeholders in this field; on the one hand, the education system (responsible for basic training of health professionals and accreditation of specialties) and, on the other, the health system (in charge of determining needs for professionals and providing specialization training). In both cases, the devolution process described throughout this monograph has configured a complex structure with 17 autonomous nodes. Several ACs have timidly started to plan on bringing in contingents of doctors trained abroad (mainly from Latin America due to the language advantage) in certain specialties for which they expect a shortfall. The actual figures for these import exercises are not available, but they cannot be estimated as significant so far.

As with previously discussed matters, the knot seemed to be loosened only through consensus being reached at the CISNS. The SNS Human Resources Commission, as part of its mandate from the CISNS, was given the task of fostering adequate planning for the needs of the SNS. The National Quality Plan, issued in 2006, contemplated, as one of its strategic lines, conducting a prospective analysis of the human resources needs of the SNS, in particular regarding specialized doctors.<sup>6</sup> The study was presented in March 2009 and contained an analysis of the current situation and forecasting scenarios for the period 2008–2025 (Barber Pérez & González López-Valcarcel 2009).

For its estimates, the study builds on the following data:

- payroll-based equivalents to full time (FTE), updated in June 2007 by the regional health services;
- survey on ACs' perception of needs (2006);
- expert panel on the trends in the need for specialized doctors in Spain, gathering experts from the MSPS, the regional administrations and external experts (2008);

---

6 It is worth noting that doctors' specialization has been compulsory in Spain since 1995; GPs are in fact for the most part doctors specialized in family and community medicine through a three-year postgraduate intern programme.



- ESCRI (2006); and
- other sources such as professional colleges, existing regional professional registries, scientific societies, analysis performed by regional health services, jobs offer reserve lists, specialization training positions (MIR) and homologated qualifications from abroad.

According to the report, the current contingent of FTE physicians can be estimated at 144 379, of which 141 579 FTE are specialists and 104 598 FTE work for the SNS; 68.5% have a medicine specialty, 22.5% correspond to surgery and the remaining 9% work in diagnosis and in laboratories. The report estimates that 4 in 10 specialists will be going into retirement within the next 15 years (31% of specialists are aged between 50 and 60 years old and 10% are older than 60). By specialties, the ones with the highest numbers of ageing doctors (50% older than 50 years old) seem to be clinical analysis, paediatrics surgery, neurosurgery, nuclear medicine, general surgery and urology; at the other end of the range, the profile of specialties such as geriatrics, medical oncology and clinical pharmacology seem to be the most juvenile (only 25% of the specialists are over 50). The study reports irrelevant variability across ACs. The two input sources – medicine faculties and foreign doctors – are analysed. Following the path of the current level of limitation of the number of training posts available, the model forecasts a cumulative reduction of 40% in medical graduates – the equivalent of 7000 posts – by 2015. Regarding the homologation of foreign qualifications, the numbers have stabilized at around 3700 per year for the last four years. Specialized training capacity via MIR has also stabilized at around 6500 positions per year.

According to the MSPS and ACs' expert panel on specialization needs, the current shortage amounts to 2%, 3200 specialists (or 2800 in FTE units). Without intervention, the model predicts a moderate increase in the need until 2015, reaching 5% (9000 specialists PP, 8000 FTE). By 2025, the horizon of the forecasting model, the need will rise to 14% translating into a 22 000 shortage in specialists FTE (25 000 PP). The distribution by specialty allows for grouping into moderate need (family and community medicine and paediatrics), light need (anaesthesiology, orthopaedics and radiologists) and low need (plastic and reconstruction surgery, paediatric surgery and urology).

Based on this analysis, the report recommends 10 actions endorsed by the SNS Human Resources Commission:

1. to develop sustained strategic planning tools for the SNS, concretely: to fuel the consolidation of the National Registry of Health Professionals to include both public and private sector, and also doctors dedicated to nonclinical activities; and regular update of needs assessment on biennial basis;
2. to define with ACs the standards for assessing current and future need for specialists;
3. to promote the match between medicine training capacity and specialization programme (MIR) and needs estimates;
4. to reform the specialization programme to foster versatility to cope with changing needs, introducing a core programme and mapping specialization paths;
5. to foster efficiency in the SNS by fully implementing e-health solutions that may partly alleviate needs;
6. to enhance recycling of specialists by implementing specific training programmes;
7. to develop engagement strategies by fuelling professional career paths at the national level allowing for mobility across ACs;
8. to develop the legal framework provided by Law 44/2003 on Health Professions (LOPS) to speed the accreditation of non-EU doctors holding homologated qualifications;
9. to promote across ACs a general action to improve the balance between family and work life; and
10. to create an office for the repatriation of health professionals working abroad.

This Decalogue is expected to guide the SNS human resources policy for the immediate future. Unfortunately, and partly due to the scarcity of information, estimates for groups of health professionals other than doctors are lacking. The National Registry of Health Professionals may help to remedy this situation.

## Training of health care personnel

Health sector staff fall into one of four categories:

- *university-qualified health care personnel*: this includes physicians, dentists, pharmacists, biologists, chemists and clinical psychologists;

- *intermediate graduate health care personnel*: including social workers, qualified nursing staff, midwives, physiotherapists, occupational therapists;
- *advanced and intermediate technician degrees*: laboratory and image technicians, hygienists, and nurse associated professionals; and
- *other personnel*: including technical, special service, maintenance and other staff in health institutions.

The Ministry of Education and the regional education ministries/departments are responsible for undergraduate education and training of all health personnel. Basic medical studies last six years in all universities, public or private, with many SNS hospitals and primary health care institutions accredited for teaching linked to the university. Most other undergraduate health care studies last five years. Nurses and physiotherapists are trained at specialist university schools, and their studies last three years. Currently, there is a process of implementation of nurses' specialties, such as midwife, mental health nurse, occupational health nurse, community nurse and others. The previously mentioned Law 44/2003 (LOPS) provides the regulatory background. Health sciences training programmes are currently in the process of changing to conform to the European Higher Education Area (EHEA) derived from the Bologna process.

In addition, the European Directive 2005/36/CE on the recognition of professional qualifications was translated into the Spanish regulatory framework through the Royal Decree 1837/2008. The Directive included six health professions: medicine, general care nurse, midwifery, pharmacy, veterinary medicine and odontology. Those are considered to be regulated professions (i.e. subject to legal dispositions limiting access and entitlement to exercise the professional activity to those with particular qualifications) and, as such, the text regulates the procedure for homologation and recognition of titles obtained in other EU Member States. In the case of these six professions, the law foresees an automatic procedure, exempt from requirements such as experience accreditation or specific tests. This automatization entails the enforcement of a common standard of training across the Member States. In the case of medicine, basic training is equivalent to 5500 hours' theory-practice; for medical specialties full-time internship training in an accredited institution is required for a minimum of three to five years depending on the specialty; nurse basic training consists of the equivalent of a minimum of 4600 hours or three years, and an additional 18 months' specific training for midwives; veterinary medicine, odontology and pharmacy require five years of training.

### **Specialized medical training**

The postgraduate training of medical specialists and family and community doctors is structured through the postgraduate training intern system (MIR), and is based on a period of paid practical work of between three and five years – depending on the specialization – in centres and services which are specifically accredited for training. Each specialization is governed by a national commission, made up of representatives of the relevant scientific associations, academics, health professionals, residents and medical colleges; they define the training programmes for each specialty, as well as training duration. Any centre, public or private, may request accreditation for training, conditional on their compliance with rigorous standards, which are audited by a team of medical inspectors. The centres that pass the accreditation process obtain authorization to provide training for a certain number of graduate students for a maximum of three years, after which they must be re-accredited. The accreditation process is run jointly by the national and regional ministries of health and ministries of education, in collaboration with the National Council for Specialties.

In 2008, the National Council of Health Sciences Specialties produced a report advising the introduction of some flexibility in the training system to allow for adaptation to emergent new specialties requiring multidisciplinary training; according to the report, medical specialties are to be clustered into three types: medical, surgical and clinical laboratory. The recommendation was to create a core training programme for each cluster, focused on basic competences, and to design access procedures and itineraries through each cluster. A taskforce in the SNS Human Resources Commission is currently coordinating the institutional adjustment to implement this reform.

Since 1978, the number of available places for postgraduate medical training is fixed annually and candidates are selected through a competitive entry examination. In general, during the early 1980s, some 2000 places were offered annually, with an average of 8000 new doctors graduating per year. During the second half of the 1980s, the number of places doubled, while the number of new graduates halved. The same trends continued during the 1990s, although increments were much more moderate. The total number of places available varies from year to year, generally between 4500 and 5000 per annum since the mid-1990s. The number of places available for specialized training (including family medicine) in the 2006/2007 call was 6517, and it was 6216 in 2007/2008.

### **Specialist training of nursing staff**

Specialization in nursing is still in a development phase, with specialties only in mental health and midwifery, which started in 1996. On 22 April 2005, the government approved a new Royal Decree on nursing specialties. The following specialties have now been included: midwifery, mental health, geriatrics, occupational health, medical-surgical care, family and community care, and paediatrics. The Decree has received positive assessment from the SNS Human Resources Commission, the Nursing Specialties Advisory Board and the General Board of Official Professional Nursing Associations. There is also a general consensus of approval among the trade unions (SATSE, UGT and CCOO), after a long period of pressure from them and the threat of strikes in the sector. The Decree establishes a residence training system similar to that of doctors, and regulates the procedures for accreditation of current experienced nursing staff in order to access each specialty degree.

The total number of places for generalist nurses was also limited in the late 1990s to about 7000 per year, despite the prospect of a shortage of nurses in the medium term. The number of specialties places offered in recent years in midwifery and mental health has been increasing continuously.

### **Training of health care managers**

There are no official degree programmes in health care management, although a number of Schools of Public Health and other public and private teaching bodies do offer training courses in management. The health care system does not demand specific management qualifications from those contracted to carry out management functions; nevertheless, in general, health managers must have a university degree and management training is valued. Often health care managers in Spain may have a medical background or training in public health.

### **Registration/licensing**

Registration and licensing of health professionals in Spain is governed by the LOPS (44/2003). Its main stated goal is to improve the quality of health care through guaranteeing the necessary levels of competence for health professionals to assure the right of population to health protection. The Act recognizes as “health professions” those that the university regulation admits as degrees in the health sector and that have a corporative professional organization recognized by the public administrations. There are two university levels: *Licenciado* (high-level graduate, e.g. medical doctors) and *Diplomado* (mid-level, generally more technical graduate, e.g. nurses).

In order to work as a health professional, on solo basis or as a member of an organization, candidates must officially graduate and follow the regulations established by the corresponding corporative professional organization. Besides, it is necessary to undertake a continuous training for re-accreditation of professional competence. Professional re-accreditation is compulsory every three years and health centres are obliged to verify that their health professionals fulfil the requirements for correct performance of their jobs. The specific evaluation measures depend on the legislation in each region. The LOPS also establishes the need for identification systems for professionals, that is, public registries of qualified professionals available to the public as well as to health authorities. In these registries, there will be registered name, degree, specialization and other data that the Act declares should be publicly accessible.

The development of a professional career is voluntary, and requires motivation and commitment to the institution. There are several levels of professional development, regarding knowledge, competences, valid continuous training, teaching activities and research. Between each level, at least five additional years of experience are needed to apply for a higher level. The SNS Human Resources Commission, comprising central government and regional representatives, deals with homologation, mutual acknowledgement of accreditation levels and free movement of professionals within the SNS.

Regarding the professional colleges, they fully enforce the Professional Associations Act and their main role is to deal with deontological issues, although they also play a role in professional registries under development.

### **Health professionals' career paths**

Abundant regulations regarding health professionals' career paths (including doctors, nurses and midwives) have been issued since 2003 in Spain. The total implementation of this new framework is still in progress; hence the best definition of the current situation is transitional. Quite loose criteria, mainly based on years of service (creating a "de facto" blocked career path for most of the professionals in the system), should give way to a structured progression path dependent upon merits assessment; local protectionist recognition of merits should shift to a shared accreditation system supporting professionals' mobility across regional health services.

The first regulatory initiatives in this direction took place in 2003, and aimed to provide legal tools for homogenization of work conditions across regional health services (see Section 2.1 *Overview of the health system* for a

description of the impact of devolution on human resources policies). The first was the Law 44/2003 on Regulation of Health Professions. Article 38 of the bill outlines the general principles of professional development, organized in four stages or degrees:

- a professional needs to have at least five years of professional practice to qualify for assessment to obtain the first level/stage in their professional career;
- applications for assessment to obtain the next upgrade and consecutive upgrades (till degree 4) are subject to a lag of five years between the awarding of the degree and the next assessment;
- in the event of a negative evaluation at any stage, the professional can apply for reassessment two years later; and
- specific assessment committees should be constituted in each centre or institution; the majority of members should share the profession of the candidates (doctor, nurse, etc.), representatives of the service or unit where the candidate belongs and external evaluators should be part of the committee.

The career path is voluntary; thus it is up to the professional to apply for the assessment and eventually upgrade. The transition between degrees is based on assessment of merits linked to knowledge, competences, accredited continuous training, teaching and research activities. Performance in terms of clinical results and compliance with quality standards, as well as involvement in clinical management (i.e. heading clinical departments, teams or units, membership of internal committees or participation in institutional projects for quality improvement, training or research, etc.) are cited as additional merits to be considered in this assessment.

Upgrades are linked to financial complements regulated by each regional system.

The Law 55/2003, on the Framework Statute of Statutory Professionals in the Health Services, builds on Law 44/2003. Article 40 of the bill establishes general criteria for definition of the career path, mandating the SNS Commission on Human Resources (which depends upon the CISNS) to deal with the homologation of career systems across ACs, with a view to guaranteeing transferability of career stages for professionals moving from one regional health service to another. Article 40 also holds each AC accountable for the design of a career system compliant with the general framework, the

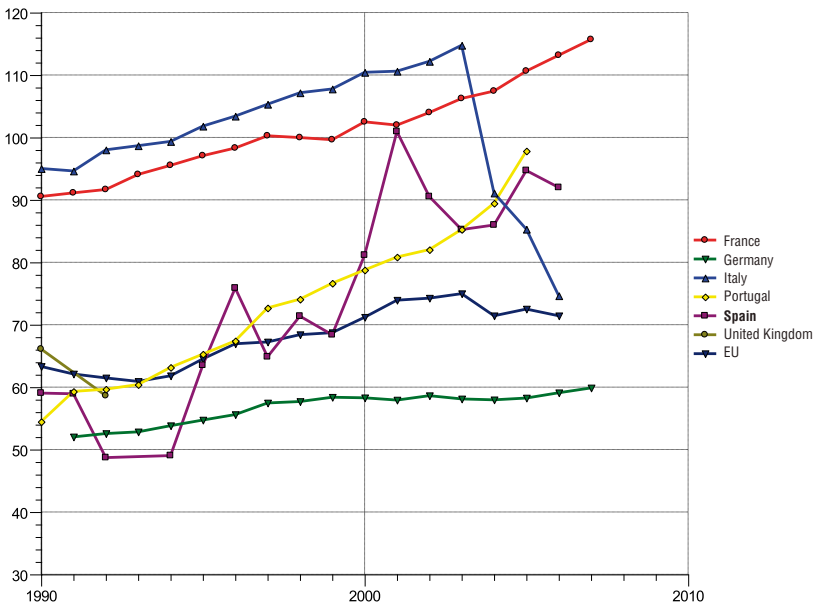
organization and provision of merits assessment and accreditation mechanisms, and the fostering of negotiation with professional stakeholders within their respective territories.

The general consensus and legal framework is already consolidated; the level of operative implementation within each regional health system is variable, though most ACs have already regulated or are in the phase of negotiation with local stakeholders.

### Pharmacists

The situation in terms of pharmacists is depicted in Fig. 5.15. Rates are above the EU average and below those of France and Portugal. However, the extreme oscillations year to year portrayed in the figure only reinforce the necessity to treat these data with caution, since there is no reason, apart from the instability of the source, for the abrupt increases and decreases.

**Fig. 5.15**  
 Number of active pharmacists per 100 000 population, 1990–2007 or latest available year



Source: WHO Regional Office for Europe 2009.



In Spain pharmacies are regulated as health resources, being the only places authorized to deliver medicines to the public, both prescriptions and over the counter. No other retailer is allowed to sell pharmaceutical products and even hospital pharmacies cannot deliver prescriptions to the population (besides the treatments administered within the hospital). However, pharmacies are actually private profit-making businesses. In addition to their monopoly as medicine retailers, pharmacies normally have a wide offer of cosmetic, dietetic and parapharma products. The entitlement to own a pharmacy is exclusively given to individuals and is restricted to pharmacists; there is a limited number of pharmacy licences in each territory and the criteria for the opening of a new pharmacy include a minimum population of influence of 2800 inhabitants and a distance between pharmacies of over 250 metres.<sup>7</sup> Access to new licences entails public tendering; once the pharmacist has won the licence for a specific location, however, it becomes a commodity and there is a market for them, though only another pharmacist can buy.

Table 5.17 shows how the number of pharmacies has increased more than the population growth rate in recent decades (around 200 new pharmacies per year and a 6% reduction in the population rate per pharmacy over the period 1990–2005).

**Table 5.17**

Evolution in the number of pharmacies

|                         | 1990   | 1995   | 1996   | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Pharmacies              | 17 896 | 18 745 | 18 909 | 19 080 | 19 222 | 19 439 | 19 641 | 19 766 | 20 098 | 20 348 | 20 461 | 20 579 |
| Annual increase         | 245    | 849    | 164    | 171    | 142    | 217    | 202    | 125    | 332    | 250    | 113    | 118    |
| Population per pharmacy | 2 172  | 2 101  | 2 098  | 2 084  | 2 073  | 2 068  | 2 062  | 2 080  | 2 082  | 2 099  | 2 111  | 2 143  |

Source: Reproduced from Meneu 2008, using CGCOF.

According to the General Council of Pharmacists Colleges (CGCOF), 85% of registered pharmacists work in a pharmacy. Of registered professionals, 30% are sole owners of a pharmacy while 9% hold a shared property; 42% of registered professionals are employees working for another pharmacist (CGCOF 2007). The average number of staff per pharmacy is relatively low though (Vogler, Arts & Habl 2006).

7 There are regional modifications of these criteria, based on rurality, touristic zone considerations, etc.



## 6. Provision of services

### 6.1 Public health

Competences on public health (PH) were devolved to all 17 ACs between 1979 and 1981, long before the other health-related competences were transferred; it was a sort of foundation stone for the brand new regional health ministers to start building on, unifying existing local networks and planning the service within their territory (see Section 2.2 *Historical background: devolution's path* for a thorough account of the process). At different speeds, depending on the regional administration, ACs have gone through a re-ordering of the decentralized services. Several inspectorates on health issues, previously dispersed among different sectors (health, agriculture, industry, environment, etc.) and different administrations (municipalities, deputations, etc.), were integrated.

Most ACs have, within their health ministry's structure, a department of public health (general directorate, institute, etc.) which coordinates PH services regionally. The MSPS, through the General Directorate of Public Health, holds responsibility for certain PH policies, such as international health, the epidemiological information and surveillance network, and coordination of PH surveillance networks. With regard to programmes targeted at the population, the MSPS is responsible for intersectoral programmes, such as control and surveillance of environmental determinants of health (such as evaluation, authorization and registry of chemicals, enforcing the European regulation on chemical agents, ERCHA) and integral programmes such as the national AIDS/HIV prevention plan and occupational health. In addition, the MSPS has the mandate from the CISNS to carry out a coordinating and overseeing role over PH policies in ACs.

PH services have been part of the SNS benefits basket since it was first regulated in 1995 (see Section 3.2 *Population coverage and basis for entitlement*). The common health benefits basket reviewed in 2006 (Royal Decree 1030/2006) defines PH services as the set of initiatives organized by public administrations to preserve, protect and promote the health of the population through collective or social intervention. The definition prescribes administrations' PH structures and SNS primary health care infrastructures as the privileged vehicle to host integral PH services. In fact, the primary health care common benefits basket as defined in the Royal Decree 1030/2006 includes those PH programmes focused on the individual (see Section 6.3 *Primary/ambulatory care*). Therefore, the bulk of preventive medicine and health promotion is integrated with primary health care and carried out by family doctors and nurses as part of their normal activity under the responsibility of regional health authorities. There is often a network of PH technicians distributed in each of the basic health care areas, building up the managerial structure of regional health services (see Section 4.1 *Regulation*); they are in charge of processing the epidemiological information for the area and support the monitoring of PH programmes in place.

The approach taken in defining common PH services involves two types of services. One refers to PH policy-making as a service to the population covered that includes:

- design, implementation and evaluation of health policies for protection against health risks, prevention of diseases and injuries, and health promotion;
- exercising authority to ensure enforcement of the regulations passed to support those policies; and
- epidemiological information and surveillance systems with a double purpose: sustained monitoring of and reporting on the population's health status and emergent health problems, and quick response to detected health threats and epidemics, providing an emergency response to PH alarms and crises.

The second type refers to programmes directly targeted at the population. Two kinds are spelt out in the common benefits basket for PH services:

- *intersectoral programmes*: PH services oriented to impact on lifestyles and other environmental health determinants considered risk factors; examples of these programmes are protection and promotion of health at the workplace, environmental health (quality of water, air, animal-

transmitted infections, sanitation), food safety regulation and surveillance, control and surveillance of risks derived from international movement of commodities and passengers (borders, airports, seaports, national and international transport); and

- *integral programmes* tailored for different life stages, interventions targeted at transmissible and non-transmissible diseases, injuries and accidents or programmes directed to population groups with special needs.

The adoption of the WHO “Health in All Policies” initiative has motivated the creation of the National Centre for Health Impact Assessment (*Centro de Evaluación de Impacto en Salud*, CREIS), aimed at addressing direct and indirect impacts of health and non-health policies on the population’s health. Although promising, this very recent initiative is still taking its first steps. It links nicely with initiatives such as the “Surveillance of social determinants of health and health inequities reduction” in Europe that the Spanish Presidency of the EU in 2010 has chosen to boost as a key element in the protection of European citizens’ health. This turn concerning the issue of inequalities in health opens an interesting opportunity for Spanish PH services. Spain has produced a number of policy statements with an unambiguous defence of the principle of equity in health. However, beyond non-contributory social subsidies, the impact of socioeconomic factors (income, education, gender, nationality) on health has been mainly addressed through emphasizing access to health care and there have been few differentiated targeted initiatives to identify and tackle equity-related issues.

Two recent political initiatives in terms of national coordination and policy frameworks are meant to have a major impact on the landscape of PH in Spain. The first is framed within the 2008 Pact for the Health System (see Section 2.2 *Historical background: devolution’s path* and Chapter 7) and is aimed at enhancing national PH information systems and harmonizing key elements of PH policies for which ACs hold direct responsibility, such as the vaccination calendar, PH human resources (qualifications and planning), benefits basket and public health regulation. The second is in a way a natural consequence of the way forward pointed out by the Pact and consists of the elaboration of a Public Health Act,<sup>1</sup> which will be discussed in Parliament before the end of 2010. The content of the PH Act is being discussed with all stakeholders, including social agents, scientific societies, different levels of the administration, the universities and industry. The goal is to update the concept of PH services in

---

1 It should be noted that several ACs have already passed their Regional PH Acts defining their specific PH benefits baskets and updating human resources and structures, notably Catalonia and Andalucía in 2009.

line with the “Health in All Policies” approach and, to this end, clarify the distribution of functions among different administrations, define a national strategy of PH and create the bodies and information systems needed to support it (see Chapter 7).

The general framework described materializes in several core programmes, deserving a more detailed account.

### **Epidemiological surveillance**

The National Epidemiological Surveillance Network has been in existence since 1996, building on previous surveillance systems. Physicians are obliged to notify health authorities of all diagnosed cases of communicable diseases (international and national). Notification is made through the regional authorities who then communicate their results to the National Epidemiology Centre at the Institute of Health Carlos III (ISCIII), where a central record of diseases under surveillance is kept. Implementation of these regulations involves, among other measures, the development of guidelines for the prevention, diagnosis and treatment of infectious diseases, and the creation of a network of national epidemiological laboratories linked to similar institutions at the international level. A telematic network (PISTA) has been developed to facilitate the transmission of epidemiological information across health care authorities. Also, specific field epidemiology training is provided by the National School of Public Health and the National Centre of Epidemiology.

### **National Plan on AIDS/HIV**

Responsibility for AIDS is shared between the central government and the ACs through the implementation of the National Plan on AIDS/HIV. The Ministry of Health is the key sponsor of the National Plan, which has been in place since 1987, evolving in structure and functions as the epidemiology of the disease in Spain changed. It is supported by a specific structure mandated to monitor the epidemiological situation and assess programmes: the National Commission for Coordination and Follow-up of AIDS Prevention Programmes. Since its creation in 1993, the Commission has stimulated the development of intersectoral bodies at regional level. The Commission itself, under the direction of the MSPS, brings together representatives from the ISCIII (epidemiological surveillance and research), the Ministry of Defence (army), the Ministry of Education (sexual education at schools and education centres), Ministry of Science, Technology and Innovation (research), Ministry

of Home Affairs (prisons), Ministry of Labour, the 17 ACs plus the two autonomous cities, municipal authorities, associations of health professionals and non-governmental organizations (NGOs) related to AIDS. The Secretary of this Commission manages the links with the international bodies working on AIDS. The areas of activity of the Commission include epidemiology, prevention, health care and research.

In addition, there is a Clinical Advisory Board to the National Commission comprising prestigious professionals from the fields of AIDS research, health care and public health, experts on health legislation and bioethics, as well as civil society representatives. They are mandated to coordinate and supervise the initiatives taken within the National Plan on AIDS.

With respect to research, there are two specific institutions: the Foundation for AIDS Research and Prevention in Spain (FIPSE), a joint effort involving public (MSPS) and private (pharmaceutical industry) resources for the development of antiretroviral drugs and enhancement of multidisciplinary research networks across the country. The other is a working group, the AIDS Study Group (GESIDA), comprising health professionals from the Spanish Society of Infectious Diseases and Clinical Microbiology; this group mainly focuses on fostering and disseminating research on HIV infection and its complications.

There is an AIDS-specific epidemiological surveillance network and a national registry of cases, which reports every six months on a set of indicators, including incidence, prevalence, mortality and means of transmission. In addition, the Plan has a set of monitoring indicators (National AIDS Plan Secretariat 2003), divided into core indicators (those mentioned above, along with health care services utilization and expenditure) and specific indicators to assess programme areas covering the actions targeted at the general population, youth, drug users, prison inmates, men with homosexual practices, people involved in prostitution, women, immigrants, vertical transmission, promotion and diffusion of HIV testing, health care and research. Table 6.1 shows recent AIDS incidence data per AC. Overall, the decrease in the rate of cases diagnosed is remarkable, with the 2008 rate being half that of 2006. In absolute terms, the number of cases diagnosed has declined from roughly 48 000 cases in 2006 to some 870 in 2008. Madrid and the Basque Country were the ACs with the highest case diagnosis rates in 2006; the number more than halved for both in 2008.

**Table 6.1**

AIDS cases per million inhabitants and year of diagnosis, 2006–2008

|                    | Population<br>2008 | Cases<br>2006 | Cases<br>2007 | Cases<br>2008 |
|--------------------|--------------------|---------------|---------------|---------------|
| Andalucía          | 8 202 220          | 34.5          | 26.7          | 18.3          |
| Aragón             | 1 326 918          | 28.7          | 31.0          | 25.4          |
| Asturias           | 1 080 138          | 22.7          | 19.0          | 6.7           |
| Balearic Islands   | 1 072 844          | 61.5          | 54.4          | 35.2          |
| Canary Islands     | 2 075 968          | 24.0          | 18.7          | 13.5          |
| Cantabria          | 582 138            | 14.4          | 16.1          | 3.6           |
| Castilla-La Mancha | 2 557 330          | 30.4          | 29.3          | 8.1           |
| Castilla-León      | 2 043 100          | 15.9          | 11.0          | 11.4          |
| Catalonia          | 7 364 078          | 37.8          | 37.1          | 11.1          |
| Valencia           | 5 029 601          | 27.4          | 25.0          | 20.1          |
| Extremadura        | 1 097 744          | 19.6          | 7.4           | 3.7           |
| Galicia            | 2 784 169          | 35.8          | 35.0          | 18.8          |
| Madrid             | 6 271 638          | 62.4          | 50.0          | 24.8          |
| Murcia             | 1 426 109          | 37.4          | 43.5          | 34.3          |
| Navarra            | 620 377            | 27.1          | 26.9          | 26.7          |
| Basque Country     | 2 157 112          | 57.9          | 35.6          | 25.6          |
| La Rioja           | 317 501            | 43.3          | 29.7          | 26.2          |
| Ceuta              | 77 389             | 42.0          | 28.0          | 28.1          |
| Melilla            | 71 448             | 44.9          | –             | –             |
| TOTAL              | 46 157 822         | 37.6          | 32.2          | 18.9          |

Source: Modified from MSPS 2010c. Original data: National AIDS Registry, cases updated in December 2008.

## Immunization

The national health benefits basket defines a common immunization calendar that should be implemented; ACs may also choose to offer additional immunization beyond the package agreed upon at the CISNS. Some years ago there was some controversy about the meningococcus C vaccine, fuelled by a badly managed small outbreak of meningitis in children that caused undue public alarm; one of the lessons learnt was that the lack of consistency in actions and messages across ACs generated unnecessary confusion for citizens



and was certainly not without its costs. The recent swine influenza crisis has tested both coordination within the system and the capacity for conveying clear and harmonized messages to the public from all health authorities. The speed with which consensus was reached as to how to deal with the crisis has been exemplary, with all regional health administrations targeting the same population groups and mobilizing within their respective territories the resources needed for education campaigning, actual delivery of vaccines and planning for the eventual flood of patients and suspected cases into the health care services. It is worth noting that previous experience with avian influenza scares had helped to ensure the maturity of coordination tools such as the National Executive Committee for prevention, control and follow-up of the epidemiological evolution of the influenza virus and the updating of the National Plan of organization and response in facing influenza pandemics.

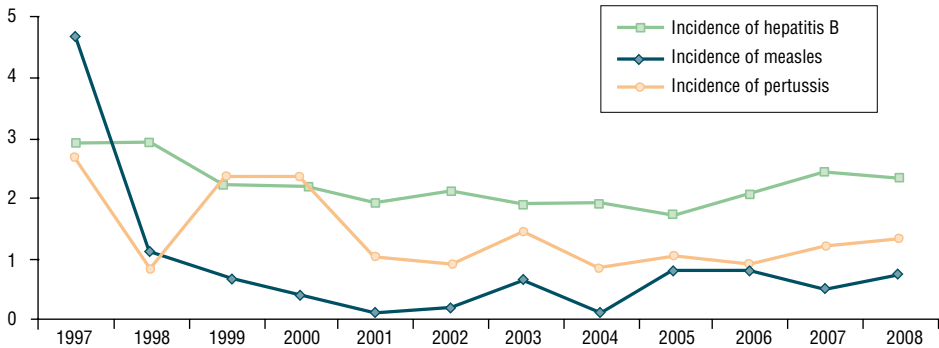
Immunization programmes are clearly successful in Spain, with high levels of coverage and the rates of vaccine-preventable diseases dropping (Fig. 6.1 and Table 6.2; see also *Dental health and immunization* in Section 1.4 *Health status* for the relevant figures on immunization levels). There have been no cases of diphtheria since 1987, and no cases of poliomyelitis since 1988. The latter reflects the significant efforts made through the Plan for the Eradication of Poliomyelitis, which started in 1996, following the recommendations of WHO.<sup>2</sup> Immunization levels for the basic children's vaccine-preventable diseases are all close to 100%, and their incidence is around 1 per 100 000 population in 2008, with just that of parotiditis being around 8 per 100 000. The incidence of measles has dropped from 55.6 per 100 000 in 1995 to 0.7 in 2008. Hepatitis B is a slightly different case, in that it has been included in the vaccination calendar since 1996 for teenagers, and for neonates only since 2003; data on children's vaccination is available as from 2004, with coverage close to 100%. The incidence rates have stabilized at between 2 and 3 per 100 000 population. In Spain, the most frequent transmission vehicles are intravenous drugs use and unprotected sex. Transmission through blood products or health professionals has decreased sharply with the implementation of hygiene protocols, transfusion safety strategies and vaccination of health staff.

---

2 Systematic vaccination against poliomyelitis was first implemented in Spain in 1963, with immediate effects on the incidence rate. Following a moderate outbreak due to a temporary decline in vaccination rates, there have been virtually no cases since 1976, with the last cases being registered in 1988. In 2002, WHO certified poliomyelitis as officially eradicated in Spain.

**Fig. 6.1**

Incidence of vaccine-preventable diseases, per 100 000 population



Source: OECD 2009b.

**Table 6.2**

Vaccine preventable diseases, reported cases and rates per 100 000 inhabitants, 2006–2008

|               | Reported cases |        |       | Rates per 100 000 inhabitants |      |      |
|---------------|----------------|--------|-------|-------------------------------|------|------|
|               | 2006           | 2007   | 2008  | 2006                          | 2007 | 2008 |
| Diphtheria    | 0              | 0      | 0     | 0.0                           | 0.0  | 0.0  |
| Parotitis     | 6 885          | 10 343 | 3 845 | 17.4                          | 23.4 | 8.6  |
| Poliomyelitis | 0              | 0      | 0     | 0.0                           | 0.0  | 0.0  |
| Rubella       | 89             | 60     | 63    | 0.2                           | 0.1  | 0.1  |
| Measles       | 334            | 241    | 308   | 0.8                           | 0.5  | 0.7  |
| Tetanus       | 21             | 12     | 15    | 0.1                           | 0.0  | 0.0  |
| Pertussis     | 383            | 554    | 663   | 1.0                           | 1.3  | 1.5  |

Source: Reproduced from MSPS 2010c. Original data: National Registry of Notifiable Diseases.

## Health education and other health programmes

The CISNS Permanent Working Group on Health Promotion has been quite active in developing consensus documents to enhance strategies, with recommendations for regional PH administrations. ACs organize and provide the bulk of health promotion and prevention programmes, often following these national recommendations and priorities, but also setting their own according to specific needs or priorities.

The issues dealt with in these strategies are lifestyle-related risks, such as alcohol and drugs abuse, and the consequences derived from it in terms of risky behaviours, such as unsafe driving and sex, accidents and injuries. Tobacco also has an obvious prominent place in the education strategies. Unprotected sex and sexually transmitted diseases, including HIV infection, are also relevant topics. Besides the classic emphasis on risk factors, there is an increasing proliferation of strategies aimed at fostering a healthy life, enhancing good health: exercise, nutrition, good mental health, positive sexual life. Often, strategies are conceived as an integral package tailored for a defined population group that will address all the relevant issues from the perspective of the group in question. Youth and adolescents, the elderly and women are obvious clusters often targeted this way. One good example is the strategy “*Ganar salud con la juventud*” (“Gaining health in youth”) emanating from the CISNS Permanent Working Group on Health Promotion and adopted by ACs. The document focuses on youth-targeted health education, covering aspects of alcohol consumption, mental health and sexual and reproductive health for this population group (MSPS 2002). In addition, there is an agreement with the Ministry of Education through which health education has been introduced into the school curriculum. The same type of arrangement prevails at the regional level. Most of the ACs focus on health education for children and teenagers by promoting healthy lifestyles in primary schools (healthy diet and dental health) and secondary schools (affective-sexual education, drugs, alcohol and tobacco).

The General Directorate of public health at the MSPS is responsible for launching national information campaigns for specific problems such as drugs and alcohol abuse, sexually transmitted infections or tobacco consumption. Spain has made substantial progress in legislating on tobacco and alcohol, putting the emphasis on retail sales regulation, consumption and advertising at national level. The 2005 Law on Tobacco banned smoking from all working or public places, the only exception being leisure business such as bars, cafés, restaurants, night clubs, which – after tough bargaining – were allowed to choose whether they would be smoke-free or not, duly advertised at the entrance. Businesses over a certain size, however, are obliged always to preserve a smoke-free zone by installing air-purifying systems in the smoking areas. It is fair to say, though, that those hybrid solutions present a high level of failure in terms of real isolation of spaces, despite the investments that the law forced the owners to make. ACs have subsequently passed regional legislation developing the regulation of retail sale, consumption and advertising of tobacco in their territories.

Nevertheless, these measures seem to have had an impact on smoking-related behaviour. Comparing the data obtained from the National Health Survey, last updated in 2006 (after almost two years of the tobacco law ruling) with those from the 2001 wave, the number of declared daily smokers has declined for both sexes (Table 6.3). However, while among women the decrease seems to be driven by younger women offsetting the increase in the population over the age of 44, among men the rate has reduced for all age groups. In addition, the percentage of former smokers has increased for both sexes, especially for those over 44 years old.

**Table 6.3**

Smoking, percentage distribution among population aged 16 and over, 2001 and 2006/2007

| Daily smoker         | Female |           | Male |           |
|----------------------|--------|-----------|------|-----------|
|                      | 2001   | 2006/2007 | 2001 | 2006/2007 |
| 65 and over          | 1.8    | 2.7       | 17.2 | 14.2      |
| Ages 45–64           | 16.1   | 20.9      | 39.8 | 34.3      |
| Ages 25–44           | 39.9   | 30.4      | 49.8 | 38.8      |
| Ages 16–24           | 36.8   | 28.9      | 36.4 | 25.0      |
| TOTAL                | 24.6   | 21.5      | 39.1 | 31.5      |
| <b>Former smoker</b> |        |           |      |           |
| 65 and over          | 3.0    | 4.5       | 53.3 | 54.3      |
| Ages 45–64           | 8.6    | 15.3      | 31.0 | 39.0      |
| Ages 25–44           | 15.2   | 18.7      | 16.2 | 17.2      |
| Ages 16–24           | 6.4    | 6.7       | 4.5  | 5.3       |
| TOTAL                | 9.4    | 13.2      | 24.7 | 28.1      |

Sources: Reproduced from MSPS 2010c; original data: ENSE 2006.

The Ministry of the Interior has also been working extensively with sensitization campaigns on road safety, with specific emphasis on drinking and driving. According to the statistics published by the General Directorate of Traffic (2009), the total number of deaths due to traffic accidents have declined from the 5400 registered in 2003 to 3100 during 2008 (latest consolidated figures); seriously injured victims have also been reduced from 26 000 in 2003 to 16 488 registered in 2008. That is a 42.6% decline in mortality and 36.6% in serious injuries over the six years observed.

Framed in the WHO 2004 strategy on diet and exercise, in 2005 the Ministry of Health and Consumers Affairs, via the Spanish Agency for Food Security, launched the NAOS. The objectives of this strategy include improvement of dietary habits and encouraging regular physical activity for the general

population, with special attention given to obesity prevention among children. Several ministries and a wide base of stakeholders, including industry, are involved. Several diet and physical activity promotion guidelines were developed and educational measures implemented, tackling environmental factors such as collective catering at schools and workplaces for obesity prevention. Diet disorders such as anorexia and bulimia are also specifically addressed; special emphasis has been placed on deconstructing fashion stereotypes regarding slimness. The Ministry agreed with major fashion exhibitors in Spain a floor body mass index limit for models to be hired; several popular Spanish clothing chains have voluntarily agreed to modify the size of manufactured clothes to make available more “real” sizes.

These diet and physical activity programmes are also a core part of the strategies for prevention of cardiovascular risks and prevention of colorectal cancer in the adult population.

Along these lines, many ACs have chosen a general population approach for the development of anorexia and obesity prevention strategies; however programmes targeting children and adolescents abound as well, mainly driven by primary health care (see Section 6.3 *Primary/ambulatory care*).

Regarding cancer screening, the initiative has historically been at the regional level, with all ACs developing regional programmes at different stages, especially for breast cancer screening (in addition to opportunistic testing). Some ACs have already achieved 100% coverage of the target population. In many cases, these programmes are integrated in the regional oncology plan or specific women’s health programmes.

The implementation of the National Cancer Strategy, emanating from the National Quality Plan, emphasizes the harmonization of implementation standards and criteria according to the European screening guidelines for breast and cervical cancer.

The early detection programmes for cervical cancer are established to a certain extent in several regions, mainly based on Papanicolaou’s test. Most are opportunistic screenings, though, and usually include primary health care for their development. Some ACs have recently introduced new screening techniques, such as liquid cytology and determination of papilloma virus. Breast cancer screening programmes started in the early 1990s in Navarra and Asturias; the rest of the ACs followed and, by 1999, all ACs had developed their regional programme. Coverage of the targeted population has improved

dramatically, reaching virtually 100% in 2007 (exceptions being the Balearic Islands, with 91%, and the city of Ceuta, with 48%; see Breast Cancer Screening Programmes 2007).

## Occupational health

This is historically an underdeveloped area, although in recent years some progress has been made. The Ministry of Labour and the corresponding regional authorities are primarily responsible for regulation, training and inspection in this field. However, the provision of the actual service is organized by firms, which either create their own prevention service or outsource it to accredited firms. The key occupational health institutions in Spain are the Work and Social Security Inspectorate and the National Institute of Occupational Safety and Hygiene; they hold responsibility for labour conditions inspection. Understaffing has been an issue for years and the relatively high statistics for workplace accidents have been a matter of concern for the trade unions. Small firms, low qualification of workers and short-term contracts have been argued to be major risk factors.

The role of health authorities is defined, in the Health Care General Act and the Occupational Hazards Prevention Law, as coordinating the definition of occupational health plans in the representative social dialogue bodies and intersectoral committees. As for many other policies, a relevant aspect is fostering consensus among regional authorities to implement actions in occupational hazards prevention and occupational health. It is more of a consultative role than holding actual responsibility, since ultimately responsibility lies with the labour authorities.

The trigger for regulation was the Framework Directive 89/391/EC, which became part of Spanish legislation according to Law 31/1995 in the field of occupational risks prevention. Since 1996 there has been a Work Group on Occupational Health under the auspices of the PH Commission of the CISNS. Three lines of action structure its work:

- Prevention services. These aim to define:
  - the health activities to be performed by the enterprises' prevention services that the law prescribes;
  - the criteria for evaluation, control and due approval by the authorities of those activities;
  - elaboration of protocols and guidelines of health surveillance for those prevention services.

- Information systems. These focus on:
  - identification of existing systematic and regularly updated registries of occupational hazards, injuries and illnesses;
  - defining the minimum data set that enterprises' prevention services must submit to health authorities.

Currently, specific software solutions are being developed to support the occupational health information system (SISAL) to pilot collection of the minimum data set.

- Education and training. The objective is to supervise and define training in occupational prevention and health promotion, both for the staff in the enterprises' prevention services and the SNS, and including both basic and continuous training.

Since the approval of preventive services regulations (Royal Decree 39/1997), Spain has had predominantly two-track provision, comprising company preventive services and external preventive services. Companies that do not have an in-house preventive service usually sign up for an external preventive service provided by an insurance company that is also responsible for compensation for work accidents and diseases (see *The role of insurance companies* in Section 2.3). This results in large-scale outsourcing of preventive services, which in turn often leads to prevention being seen as a product and an activity separated from the company, as if neither commitment nor involvement from the employer is required. Often, workers' participation is low and prevention has only a formal character, which does not pick up on emergent risk factors.

## 6.2 Patient pathways

Despite the diversity in organization entailed by the existence of 17 health care systems within the SNS, the main lines of the typical patient pathway are quite homogeneous across the country.

GPs play the gatekeeper role in the SNS, being the first point of contact with the system, except for emergencies (the pathway in case of emergency will be described again later in the following paragraphs).

Upon the onset of symptoms, individuals will visit the family doctor they are registered with.<sup>3</sup> The episode can be resolved by direct prescription or recommendation, or require further diagnostic procedures; the patient will then be given an appointment for tests and another to return to the GP office to which the results will be sent. The GP's clinical judgement will determine whether referral to specialized care is required. GPs in Spain are trained and equipped to deal with a wide range of conditions; thus patients will mostly have their problem solved at this care level. When this is not the case and referral is necessary, the patient will be provided with an appointment for the corresponding specialist, normally based in the area ambulatory polyclinics. Based on the GP's referral report and their clinical assessment, the specialists will decide on the need for further testing or inpatient procedures, or will prescribe the treatment and either send the patient back to the GP or arrange for follow-up visits. Once the specialist discharges the ambulatory patients, a report will be sent to the referring GP.

If the decision made involves a hospital stay, the patient will be admitted to the corresponding hospital service, the timing depending on the waiting time for the procedure. The waiting list will also apply for ambulatory high-tech diagnosis procedures or, depending on the demand, for more simple procedures as well. Doctors have the right to prioritize the patient based on their clinical judgement in order to accelerate the process. Normally, the patient will be discharged from hospital with an appointment for follow-up at the specialist ambulatory services either at the hospital or the area polyclinics (normally involving the same staff).

Once totally discharged from specialist care, the patient will be sent back for monitoring to the GP, who will receive a report of the care provided, diagnosis and prognosis. Should the patient's condition be considered chronic at any of the previous stages, or at the time of their discharge from specialized care, the GP would require the intervention of the primary health care nurse for support and coordinated continuous follow-up and, depending on the social situation, assessment by social services. If required, patients can be referred to rehabilitation services either from the specialist or from primary health care.

Besides this regular pathway, two emergency mechanisms are available for patients to freely walk in: 24-hour primary health care emergency centres (normally at least one per health area) and hospital emergency wards. In addition, if the patient's condition does not allow for walking in, they can demand a home

---

3 Within capacity limits, they are able to choose the doctor, normally guided by schedule convenience and eventually some positive or negative references from acquaintances about the actual doctor.



visit by the primary health care service, or use the emergencies call centre to request a mobile emergency team. Patients are advised to use primary health care emergency services over hospital emergency wards for non-life-threatening conditions. Waiting times are shorter and staff are normally equipped to deal with most of the common urgent conditions; should it be necessary in the end, patients referred to the hospital emergency departments from primary health care services have priority at the emergency admission bureau.

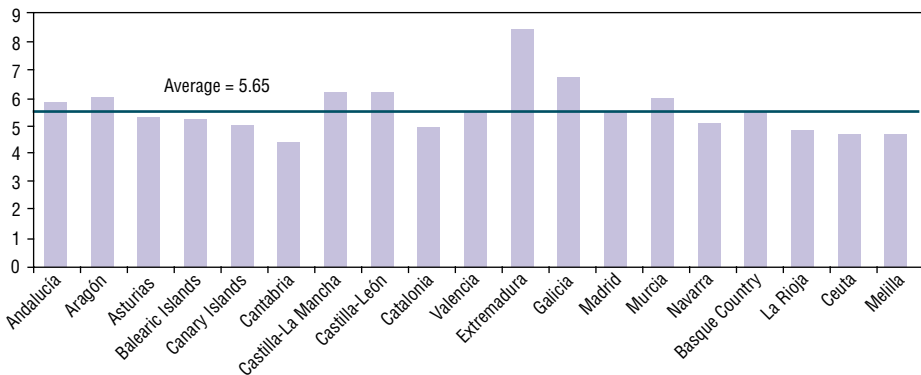
### 6.3 Primary/ambulatory care

Since 1984, the primary health care sector in Spain has experienced an extensive process of institutional reform and capacity-building. primary health care is an integrated system composed of primary health care centres and multidisciplinary teams, and provides personal and public health services. It concentrates most of the system activity in health care, health maintenance, health recovery, rehabilitation and social work.

As per the most recent data available (ENSE 2006), the national average self-reported frequency of visits to a family doctor in a year is 5.65 visits per inhabitant, ranging between 4.41 to 8.32 depending on the AC of reference (Fig. 6.2).

**Fig. 6.2**

Average number of self-reported visits to the GP per inhabitant in a year (2006)



Source: Reproduced from MSPS 2010h. Based on data from the ENSE 2006.

Table 6.4 shows the actual number of visits registered in the SNS activity reports. The number of recorded visits to GPs matches quite well those reported by the population; the number of regular contacts with paediatricians is approximately in the same range and consultations with nurses represent roughly half of medical consultations. That is because of the role performed by nurses in the primary health care team, focusing primarily on care of chronic patients, and education and prevention for all types of patients. Thus, a good share of acute activity relies on medical consultations, though nurses might be called on for cures and small surgical interventions (see below the description of primary health care services package).

**Table 6.4**

Primary health care activity: medical consultations, emergency care and attendance rate per inhabitant, 2007–2008

|                                                    | 2007        | 2008        |
|----------------------------------------------------|-------------|-------------|
| <b>Total activity during normal working hours</b>  | 390 285 231 | 406 132 862 |
| <i>Medicine</i>                                    |             |             |
| Total                                              | 266 547 209 | 273 557 142 |
| Family doctors                                     | 232 380 253 | 238 575 309 |
| Paediatrics                                        | 34 166 956  | 34 981 833  |
| <i>Nursing</i>                                     | 123 738 022 | 132 575 720 |
| <i>Emergency care outside normal working hours</i> | 29 590 478  | 30 002 020  |
| <b>General attendance <sup>a</sup></b>             | 8.6         | 8.9         |
| <i>Medicine</i>                                    |             |             |
| Total                                              | 5.9         | 6.0         |
| Family doctors                                     | 5.9         | 6.1         |
| Paediatrics                                        | 5.4         | 5.5         |
| <i>Nursing</i>                                     | 2.7         | 2.9         |
| <i>Emergency care outside normal working hours</i> | 0.7         | 0.7         |

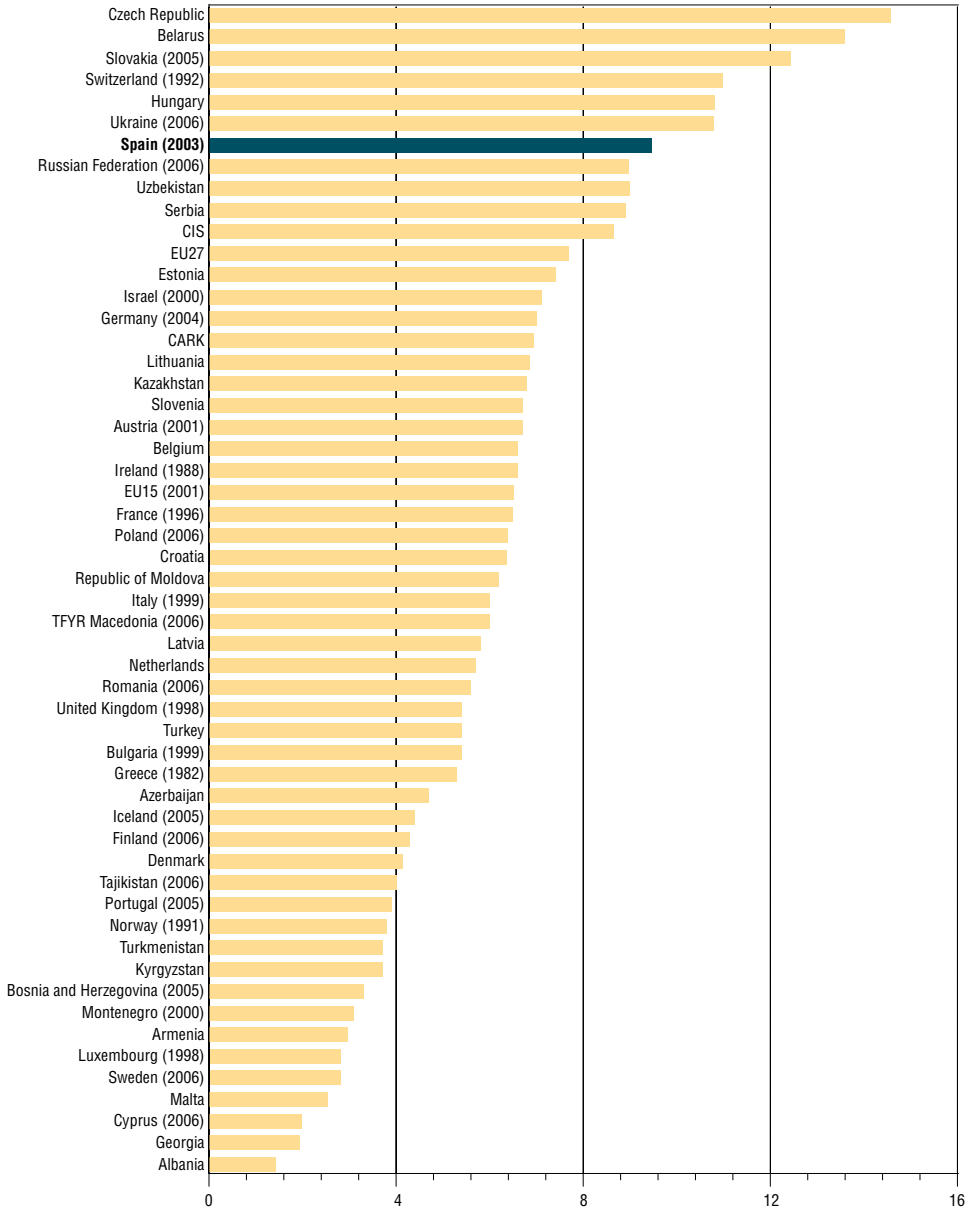
Source: MSPS 2010c. Data estimated from SIAP.

Note: <sup>a</sup> Number of recorded consultations per inhabitant in the SNS.

Though international comparisons rely on 2003 data (Fig. 6.3) and include specialized care ambulatory contacts along with primary health care contacts, it seems clear that the Spanish contact rate per person is among the highest in the European context. Data shown in Table 6.4 suggest an upward trend in the rate in more recent years, which might be added up with outpatient contacts in specialized settings to yield the actual figure (see Table 6.5).

**Fig. 6.3**

Outpatient contacts per person per year in the WHO European Region, 2007 or last available year



Source: WHO Regional Office for Europe 2009.

primary health care services in all ACs are defined in the framework of SNS common services package and include eight broad areas, listed below.

## Health care

This refers to all activities involved in individual patient care aimed towards diagnosis, treatment and follow-up for acute or chronic conditions, as well as those associated with education and prevention activities. These activities are performed by different professionals in the primary health care team. Children under the age of 15 are the responsibility of paediatricians and paediatric nurses in the team. Care for the most common conditions, either acute or chronic, follows well-defined protocols, often locally tailored to match health needs; these protocols (described below) eventually organize the intervention of the variety of professionals involved. Usually they also have an impact on the definition of the objectives and assessment measures for the contract-programme (see Section 4.1 *Regulation*).

Health care is provided either at the health centre or at patients' home when the condition prevents them from walking in (see Section 6.2 *Patient pathway*); in both cases there are three possible modalities.

- Appointment demanded by the patient (the appointment can be directly obtained for a visit with family doctor/paediatrician or nurse); the administrative staff in the corresponding health centre are in charge of managing doctors' and nurses' diaries for this type of appointment, assigning time-slots.
- Planned visit to either doctor/paediatrician or nurse. The purpose of these visits can be the completion of a thorough clinical record after a first contact with the system. The objective is to produce the patient family clinical file that will be the repository of information from then on. Monitoring and follow-up visits linked to specific care protocols will also fall within this category (see below for health education, prevention and chronic patients' programmes).
- Emergency. All primary health centres have an emergency service from 8 a.m. to 9 p.m., Monday to Friday. Outside these hours, specific 24-hour emergency primary care centres (usually there is at least one per health area) provide emergency care.

The general approach taken involves family care, taking into account the family context in tackling the individual patient; this entails identification of the family structure (even linking of individual files), of the stage in the

family life-cycle and stressful life events, family social network and detection of dysfunctions that may affect the patient's condition. The nurse's role is particularly relevant in this dimension of care though not exclusively so. Social work and/or mental health professionals within the primary health care team can be called on to intervene at any point.

The main clinical protocols implemented all across primary health care in the SNS organize care for specific age, sex and risk patient groups, and they integrate elements of health care, education and prevention.

- The childhood programme includes healthy babies and infants, prevention of sudden death, prevention of children's accidents, prevention and detection of sphincter control and sleep disorders, as well as early detection of diseases with onset in these ages, such as metabolic disorders, deafness, hip dysplasia, criptorchidia, strabismus and sight problems, pubertal development problems, obesity, autism, attention deficit disorder and hyperactivity. It also includes follow-up of children with physical or mental disabilities and detection and monitoring of children suffering from chronic diseases.
- The adolescence programme focuses on anamnesis and advice about risky lifestyles (tobacco, alcohol and drugs, and accident prevention), dietary habits and body image, sexual behaviour centred on a healthy sexual life and unplanned pregnancy prevention.
- The women's health programme focuses on cancer prevention, motherhood and menopause. Thus it comprises detection of risk groups and early detection of gynaecological cancers; advice, prescription and follow-up of non-surgical contraception methods, as well as abortion; normal pregnancy and puerperium care; health education and early detection of complications, as well as mother education fostering maternal breeding; prevention of urinary incontinence; preparation for childbirth; and prevention, detection and care of climacteric woman's problems.
- The adults' health programme consists in periodical general assessment of health status, advice on healthy lifestyles and detection of risk factors. The programme functions as a screening for early detection of patients with chronic disorders that would be then shifted to a specific protocol.
- Protocol-led health care for patients with highly prevalent chronic diseases:
  - diabetes mellitus, including injection and monitoring materials supply
  - COPT and asthma
  - hypercholesterolemia

- hypertension
  - chronic heart failure
  - obesity
  - osteoarticular chronic problems and chronic muscular-skeletal pain.
- Follow-up of HIV-positive patients and patients with sexually transmitted diseases, aimed at improving quality of life and avoiding unsafe sexual behaviour.
  - Home care for bedridden patients involving:
    - integral assessment of patient's needs to tailor a medical and nurse care plan comprising coordination with social services
    - access to diagnosis procedures not feasible at home
    - education and advice for the principal carer and other persons linked to the patient.
  - Risk behaviour of individuals programmes comprise:
    - smoking counselling and cessational programmes
    - heavy drinkers detection, counselling and referral to alcoholism programmes
    - other addictive behaviours detection, counselling and referral to drug addiction treatment programmes
    - early detection and integral approach to the health consequences of social risk and social exclusion situations, such as children in foster care, ethnic minorities, immigrants and others.
  - The elderly people care programme involves targeted health promotion and prevention activities, monitoring of patients with multiple pathology and multimедication, and detection and follow-up of those in a situation of social risk. Specific care programmes for these people are in place, including disability assessment and analysis of social and family network to produce an integral care plan coordinating specialized care and social services, and often delivered at home. Support and education for principal carers is a relevant part of these plans.
  - Detection of and assistance for those in situations of domestic violence and detection of situations of abuse of children, elderly and disabled persons. Much effort has been made recently to increase professionals' awareness and training to deal with these issues. The inclusion of this programme in the basic service package is testimony to this. Protocols for early detection

and follow-up, liaison with prosecution and police authorities, and coordination with social services are implemented.

## Prevention

Beyond the health promotion and prevention activities described above as part of targeted care programmes, primary health care holds responsibility for the provision of basic prevention activities, such as systematic vaccination of children as well as influenza vaccination for risk groups. Services also include antibiotics prophylaxis for persons who have been exposed to contagious infection by patients.

## Basic rehabilitation services

These services are delivered under doctors' prescription, either under an ambulatory regime or at home, depending on the patient's physical limitations or access difficulties. They are provided by the physiotherapists appointed to the primary health care team. Often all rehabilitation services are concentrated in a centre and accessible to patients from all primary health care teams in the health area. The service includes:

- prevention of the onset or progression of muscular-skeletal disorders
- physiotherapy for symptom control and functional improvement of chronic muscular-skeletal disorders
- recovery from acute muscular-skeletal disorders
- physiotherapy for patients with neurological disorders
- respiratory physiotherapy
- support and education for principal carer.

## Palliative care for terminally ill patients

The service comprises sustained and tailored integral care for patients with a life expectancy of less than six months not susceptible of receiving curative treatment. Pain relief and quality of life improvement are the main objectives, along with support for principal carers. The service is typically delivered at home by a specialized team comprising a doctor and a nurse. Regular scheduled visits, complemented by those asked for by the patient, is the pattern of service delivery, which involves both physical and psychological care. For especially complex situations, the team can mobilize social support at home or inpatient care. The availability of these palliative care services is still limited in most ACs, and their use as part of routine care is less extended than is desirable.

The current situation is that access to these services is highly dependent on the knowledge and personal attitudes of the individual doctor in charge of referral or the ability of the patient's family to navigate the system. There has been some progress for terminal cancer patients, fuelled by the lobbying of cancer patients associations supported by oncology professional organizations; other terminally ill patients, however, such as elderly patients, are regularly under-served. Besides shortage of resources, another barrier to this provision is that the system still needs to implement a cultural change regarding death management, and shift from the curative approach to alleviation when the time comes. The approval of the National Strategy on Palliative Care as part of the National Quality Plan, launched in 2006, is expected to help in remedying this situation.

### **Mental health care in coordination with specialized services**

The role of the primary health care team in mental health care is focused on prevention and early detection of mental disorders, such as those with onset in childhood/adolescence and those linked to life stresses. The integral approach that characterizes primary health care also allows for assessment of risks for mental health at different stages in the life-cycle (antidepressants and anxiolytics are among the most prescribed drug groups in primary care; see Section 6.6 *Pharmaceutical care*). Follow-up, and detection of addictive behaviour in patients with mental disorders, are also part of the service package.

### **Dental care**

Odontologists and stomatologists in the primary health care team are in charge of this service. They can be directly accessed through scheduled appointments. The service comprises:

- information and education on dental hygiene;
- acute process treatment: infectious or inflammatory problems localized in the oral system, osteodental traumatism, wounds and injuries in oral mucose, and detection and eventually biopsy of premalignant lesions. The therapeutic arsenal available at this level is pharmacological therapy, extractions, surgical extractions and minor surgery in the oral cavity;
- preventive exploration in pregnant women;
- prevention and full dental care for children. The extension of this service is quite a recent feature in the service package of most ACs, so there is considerable variation in the extent of services provided. Some ACs have



opted for the distribution of vouchers covering children's dental care in the private sector, others have the system built-in: the situation is still evolving and assessment will not be feasible for a couple of years.

## Epidemiological surveillance and information

As the first contact point for the system, primary health care is a privileged source of information for the assessment of community health and the impact of the health system. The traditional deficiencies in record-keeping and reporting have been progressively overcome by the standardization of clinical records and patient classification systems, and the introduction of ICT services (see *Information technology* in Section 5.1 *Physical resources*). These innovations are expected to boost the wealth of reliable morbidity information, notably absent from the SIAP hitherto. Health care quality and outcomes assessment will then become feasible at this level, and continuity of care, accounting for the interaction of the specialized and primary care levels in producing health outcomes, could finally be properly assessed.

Basic epidemiological surveillance consists in feeding notifications into the Notifiable Diseases Registry, Sentinel Doctors Networks for concrete public health problems and Drug Adverse Events information systems.

## Community outreach

Included in the basic services package, this was an important feature in the early days of the primary health care reform, enthusiastically supported by the brand new primary health care multidisciplinary teams. However the pressure of demand, as indicated by the figures shown in Table 6.4 above (supply-induced to a large extent),<sup>4</sup> has progressively eroded both the disposition and availability of the primary health care team for community participation.

Details have been provided already in Sections 5.1 *Physical resources* and 5.2 *Human resources* on the availability and relative distribution of primary health care resources. Planning, management and organization schemes have been described in Chapters 2 and 4; Chapter 2 also offered an account of patient choices, and specific expenditure was described in Chapter 3. Chapter 8 will deal with population's perception and assessment of the service provided.

---

4 The broadness of the care services basic package described in the previous paragraphs speaks for itself.

## 6.4 Secondary/inpatient care

Secondary/specialist care in the SNS can take the form of outpatient or inpatient care, or day hospitals, depending on the patient's condition and particular needs. Chapter 5 has already dealt with the human and physical resources available for specialist care. Chapter 4 provided a description of the organization of ambulatory specialized care in different settings (namely, community polyclinics and hospital outpatient clinics), the organization and management formulas existing for hospitals and the private–public mix.

Hospital-based emergency care (available 24 hours a day for patients with acute medical conditions requiring urgent hospital care) is provided to patients referred by their primary care or specialist care doctor, or by primary care emergency centres; it is also directly available to patients who have suffered an accident or who have presented with a sudden life-threatening condition requiring treatment available only in a hospital setting. These patients may walk in or be brought in by the emergency call centre mobile teams, which would have first provided care to stabilize and transport the patient. Nevertheless, access being unrestricted, patients can inappropriately choose (and often do so) to walk in for other conditions requiring procedures subject to waiting lists in an attempt to jump the queue, or may use emergency services to obtain a quick set of examinations that their family doctor has not judged to be necessary. Most of them will be turned away after assessment; however, basic examination and tests are warranted. Population campaigns, individual admonitions and the saturation of emergency departments, implying long waiting times according to admission priority assessment, have discouraged this behaviour to a certain extent. The availability of the described primary care emergency services has also contributed to removing the inappropriate burden from hospital emergency wards.

The specialized health care services common package in the SNS is defined to cover the following activities: specialized care in outpatient clinics, medical and surgical day hospitals, hospitalization on an inpatient basis, support to primary care in cases of early hospital discharge and home care, palliative care for terminally ill patients, mental health care and rehabilitation for patients with functional deficiencies. It also includes intensive care, anaesthesia and resuscitation, haemotherapy, rehabilitation, nutrition and diet, pregnancy follow-up, surgical family planning and assisted human reproduction.

In addition, specialist care is also responsible for the indication and implementation of diagnostic and therapeutic procedures, including:

- prenatal diagnosis in at-risk groups
- diagnosis through imaging
- interventional radiology
- haemodynamics
- nuclear medicine
- neurophysiology
- endoscopy
- diagnostic laboratory tests
- biopsies and spinal taps
- radiation therapy
- radiation surgery
- renal lithotripsy
- dialysis
- respiratory therapy techniques
- human organ, tissue and cell transplants.

There is a gradation in SNS hospitals' endowment, ranging from the so-called "tertiary care", which involves the availability of a full array of highly specialized and technically sophisticated services, to the basic general hospitals that provide inpatient care in each of the health areas. The minimum set of basic services for SNS general hospitals includes internal medicine; general surgery; core surgical specialties (ophthalmology, ear, nose and throat); orthopaedics; obstetrics and gynaecology; paediatrics; physiotherapy; radiology and laboratories. Larger hospitals, generally located in urban nodes, offer highly specialized services (cardiovascular surgery, neurosurgery, organ transplants, etc.), which would not be cost-effective if they were provided for smaller areas; thus, patients in need will be referred to these hospitals. A further step in rationalizing the provision of sophisticated new services has been taken with the creation of accredited national reference services and centres described in *Benefits basket* in Section 3.2 *Population coverage and basis for entitlement* and *Regulating quality of care* in Section 4.1 *Population*.

Most public general hospitals in Spain are (or can become, after due accreditation) teaching hospitals in the postgraduate phase, although medical schools are usually associated with the high-tech hospitals. Some *monographic* hospitals exist in the network; focused on a single specialty and with a limited number of beds available, they are very few compared to general hospitals. The specialties include obstetrics and neonatology (maternity hospitals), psychiatry, orthopaedics, ophthalmology and heart diseases. The trend, though, has been to integrate them into more complex managerial structures associated with big general hospitals.

All ACs have at least one general hospital for acute cases, with the full range of specialties available and a benefits package that reflects all the most recent medical advances. Access to those services is only through referral by other specialized health care services rather than directly from GPs. This implies that patients in need of hospital care have to go through three levels of care (GP, ambulatory specialists and hospital physicians; see Section 6.2 *Patient pathways*). Coordination between these three levels has been a major challenge for years and, as described in previous chapters, different formulas for enhancement have been implemented with uneven success.

Private hospitals are usually smaller than public ones and have different levels of technology and varying structures (see relevant sections in Chapters 4 and 5).

The distribution of causes of hospitalization by sex in Spanish hospitals according to 2007 discharge data is shown in Table 6.5. Overall discharges per inhabitants were above 800 for every 10 000 women and 700 for men. Consistently, the most frequent reason for inpatient stay was linked to pregnancy and delivery; circulatory, respiratory and digestive diseases followed, with predominantly the male population affected in all three categories.

Looking at the last three consolidated years available (Table 6.6), activity according to the type of service has been increasing in absolute terms, though the discharge rate per 1000 inhabitants has slightly decreased. This upward trend seems to be identical in other European countries (Table 6.7). However, Spain is among those countries with a lower number of total discharges (half the rates per 100 000 population shown for Germany and France according to 2007 data). As indicated in Table 6.6, the SNS is responsible for the vast majority of funding for specialist care.

**Table 6.5**

Hospitalizations in SNS hospitals by ICD-9-CM main groups and gender, total and rate per 10 000 inhabitants in 2007

|                                                                     | Female           |              | Male             |              |
|---------------------------------------------------------------------|------------------|--------------|------------------|--------------|
|                                                                     | N                | RA           | N                | RA           |
| Infectious and parasitic diseases                                   | 29 481           | 13.0         | 42 000           | 19.0         |
| Neoplasms                                                           | 158 542          | 69.8         | 180 556          | 81.5         |
| Endocrine, nutritional and metabolic diseases and disorders         | 37 406           | 16.5         | 28 005           | 12.6         |
| Diseases of the blood and of the haematopoietic organs              | 18 286           | 8.1          | 17 069           | 7.7          |
| Mental disorders                                                    | 34 174           | 15.0         | 41 550           | 18.8         |
| Diseases of the nervous system and sense organs                     | 54 641           | 24.1         | 53 262           | 24.0         |
| Diseases of the circulatory system                                  | 221 366          | 97.4         | 288 457          | 130.2        |
| Diseases of the respiratory system                                  | 172 156          | 75.8         | 266 061          | 120.1        |
| Diseases of the digestive system                                    | 187 973          | 82.7         | 246 792          | 111.4        |
| Diseases of the genito-urinary system                               | 118 069          | 52.0         | 93 786           | 42.3         |
| Pregnancy, childbirth and puerperium complications                  | 504 696          | 222.2        | 0                | 0            |
| Diseases of the skin and skin tissues                               | 16 053           | 7.1          | 19 794           | 8.9          |
| Diseases of the muscular and skeletal system and connective tissues | 104 377          | 45.9         | 80 213           | 36.2         |
| Congenital anomalies                                                | 13 557           | 6.0          | 19 161           | 8.6          |
| Certain conditions originating in the perinatal period              | 28 997           | 12.8         | 35 984           | 16.2         |
| Ill defined symptoms, signs and conditions                          | 71 817           | 31.6         | 89 189           | 40.3         |
| Injuries and poisoning                                              | 140 130          | 61.7         | 159 883          | 72.2         |
| Annex 1 <sup>a</sup>                                                | 45 082           | 19.8         | 48 607           | 21.9         |
| Others                                                              | 9 017            | 4.0          | 10 190           | 4.6          |
| <b>TOTAL</b>                                                        | <b>1 965 820</b> | <b>865.3</b> | <b>1 720 559</b> | <b>776.6</b> |

Source: Reproduced from MSPS 2010c.

Based on hospital discharge data in the CMBD for the SNS.

Notes: N refers to cases; RA refers to ratio per 10 000 inhabitants.

<sup>a</sup> Supplementary category including other factors influencing health status and seeking contact with health care systems.

The implementation of major ambulatory surgery (MAS) services is progressing both in absolute number of procedures and in population rates (Table 6.6). Comparing these figures with other European countries' activity (Fig. 6.4), the progression of MAS seems to be matching the decrease in inpatient surgery, suggesting a substitution process almost identical to that shown for Italy, Belgium or the Netherlands; the Spanish proportion of day surgery is still below that observed in the other three countries, suggesting some further room for substitution. This pattern contrasts vividly with that shown by countries such as Denmark, where surgery rates have increased for both types of schemes, MAS catching up with inpatient rates. The United Kingdom shows the highest proportion of day surgery and the highest rates per 1000 inhabitants sustained for the last decade. Germany, on the other hand, shows the highest rates of inpatient surgery for most of the period, decreasing sharply around 2005, while day surgery rates moved up moderately, still showing one of the lowest proportions of day surgery over total interventions.

**Table 6.6**

Medical, surgical and obstetric activity in hospitals and specialist care centres: total, rate per 1 000 inhabitants and percentage funded by the SNS, 2005–2007

|                                    | 2005      |            | 2006       |      | 2007     |      |
|------------------------------------|-----------|------------|------------|------|----------|------|
|                                    | Total     | %SNS       | Total      | %SNS | Total    | %SNS |
| Discharges (thousands)             | 5 097.1   | 78.7       | 5 156.8    | 77.6 | 5 239.4  | 78.3 |
| Discharges/1 000 inhab.            | 117.4     | –          | 117.0      | –    | 116.8    | –    |
| Medical consultations (thousands)  | 71 661.4  | 89.0       | 73 735.3   | 87.1 | 77 114.4 | 87.3 |
| Medical consultations/1 000 inhab. | 1 651.2   | –          | 1 675.3    | –    | 1 718.5  | –    |
| Emergencies (thousands)            | 24 395.9  | 78.5       | 25 300.4   | 77.2 | 26 265.1 | 77.1 |
| Emergencies/1 000 inhab.           | 56.1      | –          | 574.1      | –    | 585.3    | –    |
| Surgical operations (thousands)    | 4 221.9   | –          | 4 316.3    | –    | 4 449.8  | –    |
| Surgical operations/1 000 inhab.   | 97.3      | –          | 97.9       | –    | 99.2     | –    |
| MAS (thousands)                    | 1 003.0   | 80.0       | 1 052.8    | 79.5 | 1 134.5  | 79.5 |
| MAS/1 000 inhab.                   | 23.1      | –          | 23.9       | –    | 25.3     | –    |
| Vaginal births                     | 346 599.0 | –356 184.0 | –366 481.0 | –    | –        | –    |
| Caesarean sections                 | 116 650.0 | –125 208.0 | –124 561.0 | –    | –        | –    |
| % caesarean sections               | 25.4      | –          | 26.0       | –    | 25.2     | –    |
| Total births                       | 463 249.0 | –481 392.0 | –491 042.0 | –    | –        | –    |

Source: Reproduced from MSPS 2010c; original data based on survey on health care centres with inpatient regime (ESCRI).

Note: SNS refers to being funded by SNS.

**Table 6.7**

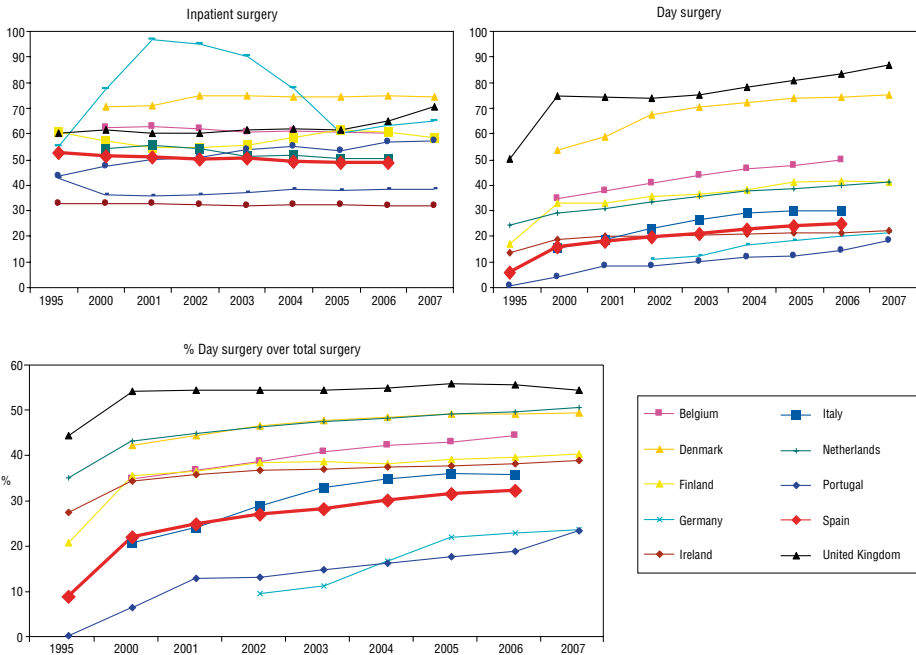
Evolution of hospital discharge rates between 2000 and 2007  
(ICD all causes/100 000 population), EU15 countries ranked by 2005 rates

|                | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Portugal       | 8 620  | 8 576  | 9 008  | 9 094  | 9 035  | 9 004  | 10 365 | 10 803 |
| Netherlands    | 9 265  | 9 125  | 9 388  | 9 707  | 10 169 | 10 414 | 10 689 | 10 931 |
| Spain          | 11 183 | 10 839 | 10 851 | 10 928 | 10 826 | 10 780 | 10 724 | 10 660 |
| United Kingdom | 12 136 | 11 993 | 11 992 | 12 188 | 12 359 | 12 308 | 12 604 | 12 554 |
| Ireland        | 13 861 | 14 096 | 13 766 | 13 776 | 13 884 | 13 664 | 13 768 | 13 796 |
| Italy          | 15 632 | 15 799 | 15 331 | 14 652 | 14 471 | 14 091 | 13 887 | –      |
| Sweden         | 16 458 | 16 255 | 16 009 | 15 956 | 16 002 | 16 052 | 16 248 | 16 481 |
| Denmark        | 17 220 | 17 178 | 17 267 | 17 108 | 17 031 | 17 013 | 17 074 | 16 975 |
| Luxembourg     | 18 075 | 17 784 | 17 533 | 17 505 | 17 425 | 17 157 | 16 862 | 16 599 |
| Belgium        | 17 773 | 17 721 | 17 502 | 17 406 | 17 410 | 17 429 | 17 374 | –      |
| Greece         | 16 076 | 16 469 | 17 106 | 17 603 | 18 406 | 18 791 | –      | –      |
| Finland        | 26 663 | 21 349 | 21 046 | 20 817 | 20 484 | 20 131 | 19 621 | 19 007 |
| Germany        | 19 559 | 20 053 | 20 154 | 21 916 | 21 906 | 21 826 | 22 040 | 22 693 |
| Austria        | 28 449 | 29 769 | 31 168 | 27 144 | 27 852 | 27 765 | –      | –      |
| France         | 26 786 | 26 774 | 26 606 | 26 699 | 27 102 | 27 924 | 28 440 | 27 377 |

Source: OECD 2009b.

**Fig. 6.4**

Evolution of rates of inpatient surgery per 1 000 inhabitants compared to day surgery rates and evolution of the share of day surgery over total surgery, 1995–2007 or latest available year



Source: OECD 2009b.

## Day care

The concept of day care has been already introduced in describing hospital health care infrastructure in Chapter 5; the evolution in number of day-care beds (or day-hospital posts in Spanish terminology) was also analysed there and data provided in Fig. 5.2. Nevertheless, a formal definition has not been presented to this point. Variability in terminology and meanings attributed to each term has been as common in Spain as elsewhere. Being part of the SNS benefits basket, the Royal Decree 1277/2003 defined day-care units (or rather day-hospital units (UHdD)) as providers of hospital care limited to a certain number of hours and thus not requiring admission to an inpatient regime; the aim of this care could be diagnosis, clinical studies or multiple explorations, as well as treatments that cannot be provided in outpatient consultation. Emergency care is excluded from

this definition. These units are usually integrated in a general hospital structure, however they can also be organized as a stand-alone resource, especially those related to mental health care (see specific section below), but not exclusively.

In 2009 the SNS Quality Agency, under the umbrella of the SNS Quality Plan, issued *Standards and recommendations for day-hospital units* (MSPS 2009g). The recommendations distinguished two types of UHdD, as follows.

- Multi-use UHdD are dedicated to patients presenting a variety of conditions, immersed in different care processes and referred from a range of medical or surgical units. They are separate entities within the organization and have their own unit head. Their main activity consists in providing services to other functional units referring their patients. In most cases, patients come from their home, but they could also be patients admitted to other health care units in the centre. Other units, such as those for multipathology patients or exploration cabinets (endoscopy, haemodynamics, etc.) incorporating day-hospital beds within their structure are clear substitutive resources, reducing the need for multi-use UHdD.
- Specialized UHdD are dedicated to patients with a certain type of condition (onco-haematologic or AIDS patients for instance).

The list of procedures liable for provision at UHdD includes:

- aspiration
- biopsy (hepatic, muscular, bone, pleural, kidney, etc.)
- subcutaneous pump
- post-procedure care (either diagnostic or therapeutic)
- blood extraction
- maintenance care for central venous catheter and subcutaneous depots
- curettage
- drainings
- intravenous infusion (chemotherapy)
- intravenous infusion (other)
- nasogastric intubation
- injection
- nebulization
- paracentesis



- puncture-biopsy of bone marrow
- lumbar puncture
- chemotherapy
- thoracentesis
- arthrocentesis
- blood transfusion.

Besides the figures provided in the section above (Table 6.6) describing the volume of MAS activity, it is difficult to estimate the proportion of care provided in day-care settings; nevertheless the capacity figures point to an increasing trend over the last decade (Table 6.8). The number of day-hospital beds has doubled, likewise their ratio per population; the share of private capacity for this resource has remained quite stable around 30% throughout the period observed.

**Table 6.8**

Evolution of availability of day-hospital beds, 1997–2007

| Year | Total day-hospital beds | Private day-hospital beds | % private capacity | Day-hospital beds per 100 000 pop. | Private day-hospital beds per 100 000 pop. |
|------|-------------------------|---------------------------|--------------------|------------------------------------|--------------------------------------------|
| 1997 | 4 163                   | 1 163                     | 27.9               | 10.5                               | 2.9                                        |
| 1998 | 4 401                   | 1 191                     | 27.1               | 11.1                               | 3.0                                        |
| 1999 | 5 177                   | 1 498                     | 28.9               | 13.0                               | 3.8                                        |
| 2000 | 5 575                   | 1 501                     | 26.9               | 13.8                               | 3.7                                        |
| 2001 | 5 804                   | 1 558                     | 26.8               | 14.3                               | 3.8                                        |
| 2002 | 6 662                   | 1 751                     | 26.3               | 16.1                               | 4.2                                        |
| 2003 | 7 317                   | 2 120                     | 29.0               | 17.4                               | 5.0                                        |
| 2004 | 8 100                   | 2 365                     | 29.2               | 19.0                               | 5.5                                        |
| 2005 | 8 814                   | 2 771                     | 31.4               | 20.3                               | 6.4                                        |
| 2006 | 9 335                   | 2 799                     | 30.0               | 21.2                               | 6.4                                        |
| 2007 | 10 468                  | 3 061                     | 29.2               | 23.3                               | 6.8                                        |

Sources: ESCRI 2008; MSPS 2010C.

## 6.5 Emergency care

The SNS common benefits basket defines emergency care as that provided to patients whose clinical condition requires immediate clinical action. It is provided 24 hours a day, both within and outside health care centres, including home emergency care, “in situ” care and emergency transportation. It involves medical and nurse resources as well as other professionals.

Emergency care organization is the responsibility of each AC; in general terms, it includes primary and specialized care services (already described in the sections above) as well as dedicated emergency services. Coordination across different emergency resources and mobilization according to need is centralized in emergency call centres. The call centres also organize health care services within the disaster plans, coordinating with emergency services across different administrations, such as civil protection, fire services and police corps, as well as army disaster intervention units.

The emergency services package includes:

- phone assistance through coordinating emergency call centres, sorting demand, matching it to adequate resources according to need, and providing information and medical advice;
- immediate initial patient evaluation, classification and, if needed, evacuation to the health care centre for explorations or specific diagnostic tests, determining immediate actions required to determine the nature and scope of the condition in each emergency case;
- implementation of the diagnostic or therapeutic medical and surgical procedures required;
- monitoring, wait and watch or re-assessment of patients whenever the situation so requires;
- emergency earth, air and sea transport, medicalized or not (depending on patient's clinical status) whenever evacuation to a health care centre is required in providing appropriate care;
- informing patients and relatives about the care provided and measures to be adopted following the relevant legislation (in cases of accidents, violence, etc.);
- patients will be discharged from emergency care or referred to other care resources, including inpatient wards, with the due clinical reports guaranteeing continuity of care after the emergency event;
- report to competent authorities of cases suspected to involve situations of domestic violence, and child, elderly or disabled people abuse.

The regular emergency patient care path has been outlined in Section 6.2 *Patient pathways*; as mentioned there, provided the patient's condition allows for it, they will most often walk into hospital emergency wards or primary health care emergency centres; when this is not the case, they would either call the primary health care centre directly to request a home visit (which is the

regular procedure for bedridden patients already on a home visits regime, for mild exacerbations of their condition outside the normal appointment schedule), or the emergency call centre. The operator in the call centre will conduct a short interview to determine the nature of the emergency and decide on the resources to be mobilized. In some simple cases, they will provide advice on how to proceed, assessing whether the person on the other end of the line can cope with the situation. They may either send an emergency mobile team immediately or switch the person to the medical team for further enquiry or specific clinical advice. If the mobile team is called upon, they will arrive at the location within minutes if the condition is life-threatening, or within an hour for other situations (response times are reported to have improved substantially across the territory, however, no detailed information is available to report on all ACs).

Depending on the assessment of the patient's condition made by the coordination centre, the mobile team could consist of emergency doctor and nurse with basic equipment or an intensive care mobile unit. The patient will be assessed to determine the course of action; either treatment will be provided in situ, leaving a copy of the emergency report detailing diagnosis, procedures and prescriptions, or the patient will be stabilized and evacuated to the hospital emergency ward.

## 6.6 Pharmaceutical care

### Regulation of pharmaceutical market

Spain is the fifth largest market in the EU after the United Kingdom, Italy, Germany and France in terms of market value at ex-factory prices<sup>5</sup> (EFPIA 2009). The vast majority of the drug market is made up of prescription drugs accounting for 96.7% of total sales in 2008. Bio-equivalent generics represented only 7.2% in sales (15% in the EU) and 13.8% in volume (27% in the EU) in 2005 (Costa-Font & Puig-Junoy 2007). More recent data from the Spanish pharmaceutical industry association (Farmaindustria 2008) indicates that in 2008 generics showed a lower market share of 6.7% (presumably price-driven effect, see below) but an increase in volume to 15.7%.

---

5 That is, pharmaceutical sales, at ex-factory prices, through all distribution channels (pharmacies, hospitals, dispensing doctors, supermarkets, etc.), whether dispensed on prescription or at the patient's request (excluding samples and sales of veterinary medicines).

Pharmaceutical regulation is an exclusive responsibility of the national administration, though the role of ACs in modulating consumption is paramount, given their full responsibility for pharmaceutical management in the regional health systems. The main stakeholders in the pharmaceutical regulatory process are listed in Table 6.9. They include a number of highly specialized bodies spread over three different ministries and different levels of the administration. The Inter-Ministerial Commission on Drug Prices is responsible for deciding on drug prices after reviewing manufacturers' applications, following the guidelines set by the General Directorate of Pharmacy and Health Products. The National Commission for the Rational Use of Pharmaceuticals, under the auspices of the CISNS, comprises representatives of the 17 ACs, the pharmaceutical industry, the medical profession, consumer organizations and trade unions, together with experts appointed by the MSPS; this Commission is responsible for reimbursement decisions.

The first Pharmaceuticals Act was passed in 1990 and modified in July 2006 with the approval of the Act for Guarantees and Rational Use of Pharmaceuticals and Health Products (Law 29/2006), further developed in 2007 and 2009 to update the number of price reference groups. The new law was preceded by the issuing of the SNS Strategic Plan on Pharmaceutical Policy, intended to address the challenges faced in the new situation of total devolution: 17 ACs purchasing and negotiating with the industry, assessing the introduction of new authorized pharmaceuticals within public benefits in their territory, as well as in control of incentive policies for prescribers (doctors and health care centres). This Act regulates drugs for human consumption and medical products, including clinical research, their evaluation, authorization, registration, manufacture, preparation, quality control, storage, distribution, circulation, traceability, marketing, information and advertising, importation and exportation, prescription and dispensing, the monitoring of the benefit–risk ratio, as well as the regulation of their rational use and the procedure for public funding, where appropriate. The regulation also extends to the excipients and materials used for their manufacture, preparation and packaging. It also establishes the criteria and general requirements applicable to veterinary drugs and, particularly, to special ones, such as master formulas, and those relating to industrially prepared medicines.

According to the current regulation, reimbursement liability is ruled by negative lists excluding drugs considered of low or no therapeutic value. There is also a price-setting system which comprises two elements: the definition

of reference prices for therapeutic drug groups (when generics with the same active principle are available) and a mechanism of caps on the prices of new licensed drugs. The first element is described in detail in the Law 29/2006. The calculation of the reference price for a certain therapeutic group is based on the average of the three products with the lowest prices per therapeutic daily dose. Drugs are clustered by their active principle and therapeutic indication. The list of groups is periodically updated by the MSPS in negotiations with the industry, though no systematic revision is scheduled in the law. In the absence of commercialized generic equivalents of drugs, the administration can still enforce a 20% reduction in drug price if the corresponding generic is available at a lower price in another EU country.

**Table 6.9****Stakeholders in the Spanish pharmaceutical regulation process**

| <b>Responsibilities</b>                            | <b>Stakeholders</b>                                                                    |
|----------------------------------------------------|----------------------------------------------------------------------------------------|
| <i>Drug regulation</i>                             |                                                                                        |
| R&D promotion                                      | Ministry of Science and Technology                                                     |
| Product licensing                                  | Directorate General of Pharmacy and Health Products (Ministry of Health)               |
| Product authorization                              | Spanish Drug Agency (Ministry of Health)                                               |
| Patent registration                                | Ministry of Industry                                                                   |
| Price regulation                                   | Inter-Ministerial Commission on Drug Prices (Ministry of Health & Ministry of Finance) |
| Reimbursement                                      | National Commission for the Rational Use of Medicines                                  |
| Distributors' mark-ups                             | Inter-Ministerial Commission on Drug Prices (Ministry of Health & Ministry of Finance) |
| Coordination                                       | Interregional Council of Regional Health Services                                      |
| Prescription, dispensing and health care provision | Regional departments of health                                                         |
| <i>Industry</i>                                    |                                                                                        |
| International manufacturers                        | International companies who provide innovative drugs                                   |
| Local manufacturers                                | Farmaindustria (association of Spanish local drug manufacturers)                       |
| Over-the-counter drugs producers                   | Association of Over-the-Counter Drug Manufacturers                                     |
| Generic drugs producers                            | Association of Generic Drug Producers                                                  |
| <i>Other health service stakeholders</i>           |                                                                                        |
| Doctors                                            | College of Physicians                                                                  |
| Pharmacists                                        | College Pharmacists                                                                    |
| Wholesalers                                        | Federation of Pharmaceutical Distributors                                              |
| Consumers                                          | Consumers' and Users' Association                                                      |
| Patients                                           | Specific patients' associations                                                        |
| Scientists                                         | Scientific associations for specific diseases                                          |
| Trade unions                                       | Specific trade unions                                                                  |

Source: Reproduced from Costa-Font & Puig-Junoy 2007.

Regarding the second element, the SNS price regulation for reimbursed drugs relies on controlling prices “product by product”. That is, the agreed price is expected to provide a profit in the range of 12–18% of the invested capital. In the event of sales exceeding the predicted volume, the prices are lowered to adjust profits within the acceptable range; some other factors are taken into account such as drug prices in other European countries, price indexation (Costa-Font & Puig-Junoy 2007).

The new law has also enforced prescription by active principle, abolishing the use of commercial brands in prescriptions; that comes along with a regulation that obliges retail sellers to substitute any prescription by the cheapest generic drug, when available. This compulsory substitution implies a “de facto” exclusion from the market of those brands that fail to adopt the reference price (Puig-Junoy 2007).

The law also regulates a scale of progressive contributions to the SNS funds for biomedical research and specific cohesion funds by the industry; the scale is based on sales volume and is applicable as a percentage of each euro billed to the SNS.

The drugs distribution system is organized mainly by wholesalers (who distribute roughly 85% of all medicines), chiefly made up of cooperatives of pharmacists, accounting for 75% of total sales, the remaining 25% corresponding mainly to purchase by hospitals. Pharmacy retailers in Spain are independent authorized agents and, unlike in other European countries, they enjoy a markedly protective regulation that eliminates competition at the level of distribution. Regulation restricts to pharmacists the dispensation of prescription drugs, includes rules to prevent geographic concentration of pharmacies, regulates opening hours and, especially, the need for a five-year university degree – not only to dispense – but also to own a pharmacy, plus compulsory enrolment in the College of Pharmacists (see corresponding section in Chapter 5). It is worth noting that the authorization to open a pharmacy entails an automatic agreement of public prescription dispensation (and reimbursement) with the corresponding health authorities. On the wholesale side, similar patterns are observed. The number of wholesalers has seen hardly any changes, despite the European single market integration process, while sales have increased annually (Costa-Font & Puig-Junoy 2007). Pharmacists’ and wholesalers’ payment system relies on fixed and price-proportional mark-up of the consumer price before tax (Table 6.10).

**Table 6.10**

Medicine price structure (% share of different stakeholders)

|                     | 1986–1987 | 1988–1992 | 1993–1994 | 1995–1996 | 1997–1998 | 1990–2000 | 2001–2003 |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Ex-factory price    | 59.00     | 58.20     | 59.90     | 59.30     | 61.70     | 62.70     | 63.30     |
| Wholesaler's margin | 8.00      | 7.90      | 8.20      | 8.10      | 7.60      | 6.60      | 6.50      |
| Retailer's margin   | 27.30     | 28.20     | 29.00     | 28.80     | 26.80     | 26.80     | 26.40     |

Sources: Farmaindustria 2005. Reproduced from Costa-Font & Puig-Junoy 2007.

According to the Spanish Pharmaceutical Distribution Companies Association (FEDIFAR) in 2002, there were 191 wholesaler storage facilities that belonged to 99 wholesale companies supplying drugs to pharmacies. According to the Official Professional Association of Pharmacists, in 2003 there were 20 384 pharmacies in Spain.

Direct advertising to consumers is forbidden for all drugs that are publicly reimbursed and only licensed pharmaceuticals intended for use without a doctor's supervision can be advertised, provided they do not contain psychotropic substances. The content of the advertisements is also strictly regulated in Article 78 of Law 29/2006.

According to Farmaindustria's *Annual report*, in 2008 advertised pharmaceutical specialities accounted for only 3.3% of sales in pharmacies, suffering a decrease of 13.1% in volume and 9.9% in sales compared to the previous year. The same report assesses the impact on the prescription market of the law modification<sup>6</sup> issued in 2007, which added 14 new groups to the system of reference prices.<sup>7</sup> Growth in 2008 was the lowest in recent years, registering only a 5% increase with an average price rise of 3.2%. In 2008, 12 new molecules were commercialized as generics, adding to a total of 151 molecules or associations for which generics are available. By the end of 2008, the reference prices market scored a 34.4% share of the total pharmaceutical market in volume and 21% in sales (Farmaindustria 2008).

Public expenditure data on pharmaceuticals has already been discussed in Chapter 3 (see Tables 3.4a and 3.4b on p. 88 for detailed data over the years and by AC).

6 Orden SCO/3867/2007.

7 This regulation followed a previous one in 2006 which affected 134 drug groups.

## Pharmaceutical benefits

In addition to the regulatory powers described in the previous section, the central government holds responsibility for:

- guaranteeing storage of narcotic substances in accordance with international treaties;
- importation of urgent foreign medicines unauthorized in Spain;
- maintaining a strategic official store of pharmaceuticals and medical products for emergencies and disasters; and
- acquisition and distribution of pharmaceuticals and medical products for international cooperation programmes.

Pharmaceutical services are defined as part of the SNS common benefits package, and cover medicines and health products as well as actions aiming to ensure that patients receive medicines as required, at the correct dosage, for the right amount of time and at the lowest possible cost for them and for the community.

For hospitalized patients, the pharmaceutical prescription includes those products needed by each patient on the basis of the portfolio of common services.

For outpatients, these services cover all prescription medicines approved and registered by the Spanish Agency for Medicines and Health Products,<sup>8</sup> master formulas and official preparations produced at local pharmacies following the National Formulary guidelines, as well as allergy and bacterial vaccines. These services do not cover cosmetic and dietary products, mineral water, elixirs, toothpaste and other health products, over-the-counter medicines, homeopathic remedies, or any item or accessory advertised targeting the general population.

Unlike other services, which are provided free of charge, pharmaceutical, orthopaedic and prosthetic services are co-financed by users (see Chapter 3). The contribution to the funding of pharmaceutical expenditure is as follows:

- hospital pharmacy: medicines dispensed in hospitals are not subject to co-payment;
- medical prescriptions funded by the SNS:
  - pensioners and their beneficiaries are exempt from co-payment;

---

<sup>8</sup> Public funding will only apply according to the policy dictated by the MSPS General Directorate of Pharmacy and Health Products.



- non-pensioners and their beneficiaries pay 40% of the retail price (the other 60% being billed by pharmacies to the regional health system where the individual resides); and
- specific groups: AIDS/chronic disease patients are subject to a 10% co-payment capped at €2.64 per prescription.

## 6.7 Rehabilitation/intermediate care

Rehabilitation care is distributed among primary health care, hospital rehabilitation services and day-care centres described in Section 6.3 Primary/ambulatory care and 6.4 Secondary/inpatient care above. Intermediate care, or transition to the community, is not particularly developed in Spain and most of the time families (especially female members) are left to deal with this at home. The next section refers to some specific services available to support disabled persons and those who look after them. The section on mental health care will elaborate on the rehabilitation and intermediate care available for patients with mental conditions and their relatives.

## 6.8 Long-term and social care

These services have been recently regulated by Law 39/2006 on the Promotion of Personal Autonomy and Assistance for Persons in a Situation of Dependency, creating the brand new SAAD. Chapter 2 has already described the general organization of the SAAD and the Interterritorial Council of the SAAD (ICSAAD). This section will offer details on the type of services included in the benefit basket and the status of implementation according to data availability.

### Benefits basket

Article 15 of Act 39/2006 details a number of benefits declared as priority to be provided either by the public network of social services available in each of the ACs or through contracts with public or private services duly accredited by the authority.

Entitlement to benefits is linked to citizenship, subject to means and dependency tests. Therefore, priority in access to services is determined by an assessment of applicants' degree of dependency and financial assets. A system

of co-payment determined by the type of service required and proportional to ability to pay is in place. Until the SAAD network is fully implemented, applicants who cannot access the services provided by the network under the priority-setting system will be entitled to financial benefits to partly fund the service outside the network.

The benefits basket comprises the following services:

- promotion of personal autonomy and prevention of dependency
- tele-assistance
- home aids:
  - house-keeping
  - personal care
  - day centre for elderly people, for those aged less than 65, and specialist care day centre and night centre
- residential services:
  - nursing home for dependent elderly people
  - residential centre for dependent persons, adapted to the type of disability.

These services are provided by the network of SAAD social centres and services; it gathers all public institutions dependent upon ACs, municipalities, national reference centres for support of specific causes of disability, as well as accredited partner private centres. ACs have total freedom to articulate this network within their territory. NGOs and non-profit-making institutions are specially favoured in entering this network, acknowledging their expertise and long-standing status as key providers in many parts of the territory. Accreditation by the regional authority is also compulsory for non-partner private centres providing services in the ACs.

The benefits basket also includes financial benefits, based on the degree of dependency and financial status; they can take three forms and are mainly linked to support services provision outside the SAAD network.

- Financial benefit linked to service purchase outside the network. This is available only when there is no public or partner centre available to provide the service benefits. The budget will depend upon the agreement between the national administration and the corresponding regional government.
- Financial benefit for care provision within the family. This benefit is addressed to the member acting as principal carer. It is considered

exceptional and would only apply when the applicant is being nursed at home, provided that physical and living conditions for care are met. Besides the financial contribution, the system foresees training, information and respite care for the principal carer. Receipt of this benefit will entail enrolment in the Social Security workers protection scheme and payment of the corresponding social contributions on behalf of the carer.

- Financial benefit for paid personal assistance is intended to support the hiring of professional personal carers for a number of hours per day in order to enhance the applicant's access to education and employment and maximize autonomy in daily life activities. Specific conditions for access to this benefit are to be set by the ICSAAD.

There is yet another tool in the system aimed at maximizing autonomy for disabled people including subsidies for:

- techniques or devices required for support in daily life activities;
- installation of aids and refurbishment to improve an applicant's mobility at home.

The availability of this type of benefit is subject to the existence of specific bilateral agreements between central and regional administrations.

The scales of entitled cash transfer amounts are a function of three degrees of disability and two dependency levels; they are agreed within the ICSAAD (see Chapter 2) and then approved by the government in a Royal Decree. Systematic revision is not clearly scheduled. The combination of both relevant variables results in a set of maximum amounts as shown in Table 6.11, in force from 1 January 2009. The final cash transfer will be determined by applying to the scale a reduction coefficient related to the applicant's ability to pay.

Since social care competences are totally devolved to ACs, the Act only establishes a minimum level of protection financially supported by the national administration. The second level of protection is stipulated in the legislation, relying on bilateral collaboration and agreements between the central government and the regional administrations. In addition, ACs could develop a wider set of benefits within their territory. Municipalities can also complement the basket within their constituency.

The assessment of the applicant's disability and dependency situation, and economic circumstances, at the core of the implementation of SAAD, should be made by the corresponding regional authority. Table 6.12 shows the activity registered by the system from its approval in 2006 to January 2010 by ACs.

Different levels of resolution of applications presented can be detected across ACs as a mismatch between the percentage over total applications and the percentage over total assessments conducted. Some ACs, such as the Canary Islands, seem to have a disproportionate rate of entitlement, with a proportion of successful applications over the national total not matching the proportion of applications presented in this AC. The speed in realization of the entitlement also differs across regional administrations, as shown by the proportion of benefits assigned compared to the proportion of assessed entitlements.

**Table 6.11**

Scales of cash transfers for the implementation of SAAD financial benefits, January 2009

| Assessed disability and autonomy | Benefit for service purchase (€/month) |               | Benefit for home care by family member (€/month) | Benefit for paid personal services (€/month) |
|----------------------------------|----------------------------------------|---------------|--------------------------------------------------|----------------------------------------------|
|                                  | Cash transfer                          | Cash transfer | SS contribution+principal caregiver support      | Cash transfer                                |
| Degree III level 2               | 831.47                                 | 519.13        | –                                                | 831.47                                       |
| Degree III level 1               | 623.60                                 | 415.73        | 160.13                                           | 623.60                                       |
| Degree II level 2                | 460.80                                 | 336.24        | –                                                | –                                            |
| Degree II level 1                | 400.00                                 | 300.00        | –                                                | –                                            |

Source: Royal Decree 7/2008.

**Table 6.12**

SAAD applications, assessments, positive verdicts and actual assignment of benefits across ACs, January 2010

|                    | Applications |       | Assessments |       | Applicants entitled |       | Benefits |       |
|--------------------|--------------|-------|-------------|-------|---------------------|-------|----------|-------|
|                    | Total        | %     | Total       | %     | Total               | %     | Total    | %     |
| Andalucía          | 392 508      | 28.75 | 327 591     | 26.93 | 230 421             | 26.02 | 216 008  | 32.76 |
| Aragón             | 46 711       | 3.42  | 40 933      | 3.36  | 30 959              | 3.50  | 23 801   | 3.61  |
| Asturias           | 35 081       | 2.57  | 27 599      | 2.27  | 19 752              | 2.23  | 13 455   | 2.04  |
| Balearic Islands   | 24 059       | 1.76  | 19 884      | 1.63  | 15 081              | 1.70  | 6 921    | 1.05  |
| Canary Islands     | 28 878       | 2.12  | 21 832      | 1.79  | 17 856              | 2.02  | 7 186    | 1.09  |
| Cantabria          | 21 722       | 1.59  | 21 842      | 1.80  | 15 482              | 1.75  | 12 151   | 1.84  |
| Castilla-La Mancha | 75 727       | 5.55  | 69 083      | 5.68  | 52 832              | 5.97  | 49 085   | 7.44  |
| Castilla-León      | 78 214       | 5.73  | 65 262      | 5.36  | 45 847              | 5.18  | 37 023   | 5.61  |
| Catalonia          | 210 511      | 15.42 | 207 624     | 17.07 | 157 362             | 17.77 | 95 245   | 14.44 |
| Valencia           | 100 556      | 7.36  | 96 146      | 7.90  | 67 505              | 7.62  | 33 156   | 5.03  |
| Extremadura        | 37 511       | 2.75  | 28 141      | 2.31  | 21 159              | 2.39  | 15 491   | 2.35  |
| Galicia            | 75 511       | 5.53  | 67 026      | 5.51  | 53 468              | 6.04  | 33 886   | 5.14  |
| Madrid             | 70 855       | 5.19  | 71 062      | 5.84  | 56 175              | 6.34  | 33 392   | 5.06  |
| Murcia             | 43 476       | 3.18  | 39 843      | 3.28  | 29 798              | 3.36  | 17 291   | 2.62  |
| Navarra            | 22 631       | 1.66  | 20 797      | 1.71  | 12 690              | 1.43  | 10 782   | 1.64  |
| Basque Country     | 84 936       | 6.22  | 76 394      | 6.28  | 47 895              | 5.41  | 44 370   | 6.73  |
| La Rioja           | 12 877       | 0.94  | 12 433      | 1.02  | 9 528               | 1.08  | 8 281    | 1.26  |
| Ceuta and Melilla  | 3 566        | 0.26  | 3 002       | 0.25  | 1 838               | 0.21  | 1 865    | 0.28  |
| Total              | 1 365 330    | 100   | 1 216 494   | 100   | 885 648             | 100   | 659 389  | 100   |

Source: MSPS 2009n.

Table 6.13 offers some perspective as to the proportion of the population in each AC applying for the SAAD services package, and Table 6.14 shows the proportion of applications assessed, the results of the assessment and the actual assignment of benefits overall and by ACs.

**Table 6.13**

Distribution of applications as a percentage of population across ACs, January 2010

|                    | Population |       | Applications |      |
|--------------------|------------|-------|--------------|------|
|                    | No.        | %     | No.          | %    |
| Andalucía          | 8 302 923  | 17.76 | 352 532      | 4.25 |
| Aragón             | 1 345 473  | 2.88  | 41 790       | 3.11 |
| Asturias           | 1 085 289  | 2.32  | 29 729       | 2.74 |
| Balearic Islands   | 1 095 426  | 2.34  | 20 294       | 1.85 |
| Canary Islands     | 2 103 992  | 4.50  | 26 300       | 1.25 |
| Cantabria          | 589 235    | 1.26  | 19 539       | 3.32 |
| Castilla-La Mancha | 2 563 521  | 5.48  | 67 449       | 2.63 |
| Castilla-León      | 2 081 313  | 4.45  | 70 452       | 3.38 |
| Catalonia          | 7 475 420  | 15.99 | 189 187      | 2.53 |
| Valencia           | 5 094 675  | 10.90 | 91 522       | 1.80 |
| Extremadura        | 1 102 410  | 2.36  | 33 792       | 3.07 |
| Galicia            | 2 796 089  | 5.98  | 64 328       | 2.30 |
| Madrid             | 6 386 932  | 13.66 | 66 300       | 1.04 |
| Murcia             | 1 446 520  | 3.09  | 39 186       | 2.71 |
| Navarra            | 630 578    | 1.35  | 19 120       | 3.03 |
| Basque Country     | 2 172 175  | 4.65  | 77 733       | 3.58 |
| La Rioja           | 321 702    | 0.69  | 11 615       | 3.61 |
| Ceuta and Melilla  | 152 134    | 0.33  | 3 228        | 2.12 |
| Total              | 46 745 807 | 100   | 1 224 096    | 2.62 |

Source: MSPS 2009n.

In terms of available long-term care structural capacity, Table 6.15 summarizes the number of functioning beds existing across the country. They only include health care beds and exclude psychiatric centres. The preponderance of the private sector is clearly confirmed by the trend over the years, both in absolute figures and relative increase; while the number of public beds has decreased by some 33%, the number of private beds has seen an increase of 52% over the period.

**Table 6.14**

Proportion of applications assessed, results of the assessment and actual assignment of benefits across ACs

|                    | Applications |       | Assessments |       | Degree III |       | Degree II |       | Individuals entitled |       |
|--------------------|--------------|-------|-------------|-------|------------|-------|-----------|-------|----------------------|-------|
|                    | No.          | %     | No.         | %     | No.        | %     | No.       | %     | No.                  | %     |
| Andalucía          | 352 532      | 28.80 | 303 485     | 86.09 | 115 875    | 38.18 | 92 522    | 30.49 | 208 397              | 68.67 |
| Aragón             | 41 790       | 3.41  | 36 849      | 88.18 | 16 980     | 46.08 | 10 140    | 27.52 | 27 120               | 73.60 |
| Asturias           | 29 729       | 2.43  | 23 070      | 77.60 | 9 959      | 43.17 | 5 642     | 24.46 | 15 601               | 67.62 |
| Balearic Islands   | 20 294       | 1.66  | 17 680      | 87.12 | 7 706      | 43.59 | 5 274     | 29.83 | 12 980               | 73.42 |
| Canary Islands     | 26 300       | 2.15  | 20 194      | 76.78 | 11 491     | 56.90 | 4 913     | 24.33 | 16 404               | 81.23 |
| Cantabria          | 19 539       | 1.60  | 19 442      | 99.50 | 8 228      | 42.32 | 5 442     | 27.99 | 13 670               | 70.31 |
| Castilla-La Mancha | 67 449       | 5.51  | 60 958      | 90.38 | 29 587     | 48.54 | 15 747    | 25.83 | 45 334               | 74.37 |
| Castilla-León      | 70 452       | 5.76  | 60 075      | 85.27 | 25 088     | 41.76 | 16 186    | 26.94 | 41 274               | 68.70 |
| Catalonia          | 189 187      | 15.46 | 187 143     | 98.92 | 82 855     | 44.27 | 55 278    | 29.54 | 138 133              | 73.81 |
| Valencia           | 91 522       | 7.48  | 87 805      | 95.94 | 34 642     | 39.45 | 25 011    | 28.48 | 59 653               | 67.94 |
| Extremadura        | 33 792       | 2.76  | 26 561      | 78.60 | 12 821     | 48.27 | 6 298     | 23.71 | 19 119               | 71.98 |
| Galicia            | 64 328       | 5.26  | 60 108      | 93.44 | 30 079     | 50.04 | 16 916    | 28.14 | 46 995               | 78.18 |
| Madrid             | 66 300       | 5.42  | 65 579      | 98.91 | 32 016     | 48.82 | 19 004    | 28.98 | 51 020               | 77.80 |
| Murcia             | 39 186       | 3.20  | 35 539      | 90.69 | 15 738     | 44.28 | 9 757     | 27.45 | 25 495               | 71.74 |
| Navarra            | 19 120       | 1.56  | 17 881      | 93.52 | 4 776      | 26.71 | 5 415     | 30.28 | 10 191               | 56.99 |
| Basque Country     | 77 733       | 6.35  | 69 618      | 89.56 | 22 611     | 32.48 | 19 100    | 27.44 | 41 711               | 59.91 |
| La Rioja           | 11 615       | 0.95  | 11 000      | 94.71 | 5 054      | 45.95 | 2 885     | 26.23 | 7 939                | 72.17 |
| Ceuta and Melilla  | 3 228        | 0.26  | 2 814       | 87.17 | 909        | 32.30 | 768       | 27.29 | 1 677                | 59.59 |
| Total              | 1 224 096    | 100   | 1 105 801   | 90.34 | 466 415    | 42.18 | 316 298   | 28.60 | 782 713              | 70.78 |

Source: MSPS 2009n.

**Table 6.15**

Evolution of functioning long-term care beds

| Year | Functioning long-term care beds |         | Functioning long-term care beds per 1 000 pop. |         |
|------|---------------------------------|---------|------------------------------------------------|---------|
|      | Public                          | Private | Public                                         | Private |
| 1997 | 4 896                           | 6 486   | 0.12                                           | 0.16    |
| 1998 | 3 847                           | 7 571   | 0.10                                           | 0.19    |
| 1999 | 3 474                           | 7 869   | 0.09                                           | 0.20    |
| 2000 | 3 516                           | 7 991   | 0.09                                           | 0.20    |
| 2001 | 3 260                           | 8 035   | 0.08                                           | 0.20    |
| 2002 | 2 950                           | 8 178   | 0.07                                           | 0.20    |
| 2003 | 3 254                           | 8 625   | 0.08                                           | 0.21    |
| 2004 | 3 518                           | 9 367   | 0.08                                           | 0.22    |
| 2005 | 3 765                           | 9 001   | 0.09                                           | 0.21    |
| 2006 | 3 302                           | 9 256   | 0.07                                           | 0.21    |
| 2007 | 3 280                           | 9 860   | 0.07                                           | 0.22    |

Source: ESCRI 2008, in MSPS 2010c.

## 6.9 Palliative care

According to 2004 data, between 50% and 60% of deaths in Spain were due to cancer or evolving chronic diseases and therefore those were patients technically in need of palliative care (MSPS 2007). The Health Care General Act of 1986, the SNS Cohesion and Quality Act in 2003 and the 2006 Royal Decree defining the common benefit basket for the SNS acknowledge palliative care as a key part of health care for the SNS. The National Quality Plan for the SNS approved in 2006 the National Strategy for Palliative Care and a set of national clinical guidelines on palliative care was issued in 2009 by the national body in charge, *Guía Salud* (see Chapter 4 for a description of this body). The National Strategy was due for assessment in 2008 and the report should have been published in 2009, however the publication has been delayed with no foreseen date of completion.

In 2008 the European Parliament published a report on palliative care across Member States, ranking Spain seventh of 23 Member States (European Parliament's Committee on the Environment, Public Health and Food Safety 2008). Nevertheless, the report points out a major issue in palliative care in Spain regarding the uneven situation across ACs; this is very much in line with the national expert consensus, which was the impetus for developing the National Strategy for Palliative Care. The global estimate of resources available included some 1098 palliative care beds distributed in 95 inpatient units, 27 hospital support teams, 139 home care teams, 28 day centres and 2 paediatric services, adding up to a total of 350 palliative care specific units (2006 data used in the European Parliament report). More recent data from the Spanish Society of Palliative Care (Pascual & Rocafort 2009) points to an increase in specific units, reaching some 450 across the country. However, the distribution is far from even; highly developed regions such as Catalonia and Extremadura coexist with other medium-developed regions, such as the Basque Country or Cantabria, and a few regions with relatively little development, such as Galicia.

Roughly 1600 professionals work in the field, including nearly 500 physicians and about 800 nurses; over 100 psychologists are also reported to work in meeting the emotional needs of patients and their carers. Nine universities offer undergraduate medical courses in this subject, and about half of the nursing schools offer courses (mostly elective) at an undergraduate level. At present, there is no doctorate programme available, but there are six Masters' courses throughout the country, and palliative care elements are included in the curricula of various other specialties, such as oncology.

In addition, families (especially women) play a relevant role in looking after dependent relatives, and in this area recent laws, such as Law 39/2006 regulating the SAAD, have begun to address these realities (see Section 6.8 *Long-term and social care*), offering financial assistance to relatives and caregivers of dependent persons.

In financial terms, only about 60–65% of palliative care costs are covered by the SNS. The rest is covered by private entities, mostly charities such as the National Association Against Cancer, with a variety of funding sources.

Facing this panorama, the National Strategy for Palliative Care was intended to organize and establish homogeneous standards of palliative care across the territory, ensuring a minimum service to all the population. In the absence of the assessment report, the situation that can be reported pre-dates the implementation of the National Strategy and its eventual impact. Results of the assessment have been unofficially published in national specialized journals (Pascual & Rocafort 2009). Those accounts suggest that, according to the assessment, most ACs have developed or initiated the elaboration of a regional plan or programme on palliative care, and consensus has been reached among administrations as to the organization model to guarantee the availability of specific home support teams and hospital units in every health area.

## 6.10 Mental health care

The historical background of a neglected mental health care sector in Spain runs parallel to that in most Western developed countries; that is, the story of the paradigm change from custody of mentally ill people to health care for patients with mental disorders; and a further step moving from clinically supervised restraint to community care, reinsertion and autonomy support (favoured by availability of new pharmacological treatments).

Until the 1970s, care for chronic mental diseases in Spain was characterized by over-reliance on hospitalization (hospitals being often huge asylums), inadequate provision of outpatient care and a notable lack of social care resources. An additional feature aggravated the situation: well into the 1980s, a number of public bodies and different levels of administration, as well as religious institutions, ran uncoordinated parallel networks providing some sort of care for mentally ill persons (see Chapter 2 for a description of the broader context).



The anti-psychiatry school and the community-based care movement of the 1970s also found its echo in Spain. Initially, it was the initiative of some innovative mental health teams, which started to implement a community-centred approach to mental health care at a local level; the pilot special units represented a sharp contrast to the existing psychiatric hospital-centred “mental health network”. The immediate success and expansion of demand experienced by those teams signalled clearly the existence of severe unmet need (García, Espino & Lara 1998; Lara 2005).

The systematic psychiatric reform effort in Spain started in 1983 with the setting up of a Ministerial Commission for Psychiatric Reform. Its mandate was to lay down the framework and broad criteria for reforming psychiatric services; the aim of the intended reform was to adopt the community-based approach and achieve territorialization and integration of mental health services, along with the rest of health services. Since then, several milestones in the road to reform are worth highlighting, such as the 1986 Health Care General Act, which upgraded mental patients’ rights in line with the rest of the population and made provision for the integration of mental health within the general health care system, and the 1995 Royal Decree on the SNS benefits basket, which included for the first time a definition of mental health, as well as explicit mental health care and psychiatric care content. The 2006 SNS common basket Royal Decree also includes mental health care and prevention among the minimum benefits. Besides the benefits already included in the 1995 basket (diagnosis and follow-up of mental disorders; psychopharmacotherapy; individual, group or family psychotherapy – excluding hypnosis and psychoanalysis; electroconvulsive therapy; and eventually hospitalization), the common package particularly stresses the incorporation of elements of mental health within primary health care (see description above) and places emphasis on continuity of care, to be enhanced by:

- preventive interventions and mental health promotion activities coordinated with other resources, health care and outside agencies, civil society and schools;
- diagnosis and treatment of acute mental disorders, as well as of acute exacerbations in chronic patients; this includes ambulatory care, family-targeted interventions and hospitalization if needed;
- diagnosis and treatment of chronic mental disorders, including integral care for schizophrenia; this includes ambulatory care, family-targeted interventions and rehabilitation;

- diagnosis and treatment of addictive behaviour disorders, including alcoholism and ludomania;
- diagnosis and treatment of infant and adolescent psychopathology, children with psychosis, autism and behaviour disorders including anorexia/bulimia; it comprises ambulatory care, psychotherapy in day-hospital care and hospitalization if required, as well as reinforcement of healthy behaviour;
- assistance for mental disorders originating from situations of risk or social exclusion; and
- support and information for relatives, notably the principal carer.

The SNS Strategy on Mental Health launched in 2007 (under the SNS Quality Plan) can be considered the latest milestone in the reform process. A broad base of stakeholders, including scientific societies, patients' advocates, authorities and the pharmaceutical industry participated in its formulation. It follows the Helsinki Declaration principles signed in 2005 by WHO European Region health ministers, committing themselves to the objective of improving mental health in Europe.

There is general consensus around the achievements of the reform process:

- mental health care services have been territorialized along with the rest of health care services;
- mental health care has been fully integrated in the health care network, with a significant impact on both the quality of services and the social perception of mental disorders;
- the number of psychiatric beds in monographic hospitals has declined dramatically, giving way to beds integrated within the network of general hospitals;
- a community-based mental health care network has been developed across the territory;
- mental health professionals' training has been regulated (psychiatrists, clinical psychologists, mental health nurses); and
- all ACs have a mental health plan for their territory.

However, as the situation diagnosis included in the 2007 National Strategy on Mental Health highlights, there are still several problems to be sorted out:

- there is a shortage of specialized human resources;
- rehabilitation, intermediate care and social insertion resources are still too limited;

- specific mental health programmes targeting vulnerable populations, such as children, adolescents, elderly, immigrants and prison inmates, are not totally developed in all ACs and the level of implementation is variable;
- there is evidence of uneven offer of mental health services across ACs, and cooperation across different administrations is still weak;
- the drug addiction care network is not yet integrated in the general health care network;
- mental health care information systems are very deficient and uncoordinated;
- there is no appropriate systematic assessment of mental health care services;
- a more cooperative articulation of the mental health care network with primary health care, specialized care, rehabilitation and social care is needed; the aim should be to guarantee continuity and integral care, attending flexibly to all aspects of the individual patient's needs; and
- there is insufficient development of prevention and mental health promotion and assessing this work within the community.

With a view to addressing these problems, the strategy proposes six lines of work with general objectives and recommendations as to how to set about achieving them:

1. Population mental health promotion, prevention of mental illness and suicide, and stigma eradication

Objective 1: to promote mental health among the general population and specific groups

Objective 2: to prevent mental disorders, suicide and addictions in the general population

Objective 3: to remove the stigma linked to mental disorders and eradicate discrimination against people suffering from them

2. Increase equity and quality of health care for mental diseases and implement restraint measures in line with the highest respect for the patient's dignity; this affects involuntary hospitalization, enforced treatment and physical restraint measures<sup>9</sup>

---

<sup>9</sup> Regarding the safeguard against inappropriate compulsory treatment and/or detention, the Law 13/1983 stated that any compulsory treatment or hospital admission should be mandated by a judge. When very urgent treatment is needed, 24 hours are the maximum time limit allowed in order to obtain judicial approval; otherwise the will of the patient should be respected and the usual procedure for a judicial request should be followed. No legal obligations are imposed on the families unless a judge declares a patient to be dependent and unable to decide on his/her own accord (in which case a guardian is designated by the judge).

Objective 4: to improve mental health care quality, equity and continuity, effectively implementing the benefits included in the common basket across ACs and evidence-based clinical guidelines

Objective 5: to implement good practice with regard to restraint measures, assuring respect to the patient's dignity

### 3. Enhancing intra- and inter-institutional coordination

Objective 6: to promote effective collaboration across all the agencies and departments involved in mental health

Objective 7: to foster patients' and families' involvement in mental health care services in their AC of residence

### 4. Specific training of staff and increase of specialized workforce

Objective 8: to strengthen health professionals' abilities and formal training to cope with the mental health needs of the population

### 5. Research

Objective 9: to strengthen mental health care research capacity and production

### 6. Information systems and evaluation

Objective 10: to improve information about the population's mental health status and conditions of mental health care provision across the SNS.

The evaluation of the strategy was due in 2009, with a view to monitoring implementation and to assess impact; this assessment is to be the basis for the SNS Mental Health Strategy 2009–2013. The evaluation addressed the impact on the population using a set of indicators selected by the Scientific Committee (see Table 6.16), as well as the level of enhancement of each of the objectives, by carrying out a qualitative survey of the 17 ACs. Overall assessment showed that the level of achievement of the objectives (including population impact) was moderate and variable across ACs. Only three objectives related to professionals' involvement and training and research were characterized as fully achieved. The remainder was in the area of initiated or partly achieved. None of the objectives related to population impact or mental health care users was considered achieved.

The assessment concluded with a suite of proposals for the SNS Mental Health Strategy 2009–2013, including:

- revision of the objectives, adding to the initial ones several operational indicators including, among others, gender approach to the assessment;

**Table 6.16**  
SNS Mental Health Strategy, 2007–2009 indicators

| Strategic lines                                                                                        | Indicators                                                               | Sources                               |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------|
| 1. Population mental health promotion, prevention of mental illness and suicide and stigma eradication | % people at risk of ill mental health                                    | ENSE                                  |
|                                                                                                        | Declared prevalence of depression, anxiety and other affective disorders | ENSE                                  |
|                                                                                                        | % people declaring drug consumption                                      | EDADES                                |
|                                                                                                        | % school teenagers declaring drug consumption                            | ESTUDES                               |
|                                                                                                        | % high-risk drinkers                                                     | ENSE                                  |
|                                                                                                        | Self-harm hospital discharges                                            | CMBD                                  |
|                                                                                                        | Suicide mortality                                                        | INE                                   |
|                                                                                                        | Psychiatric beds in general hospitals per 100 000 population             | ESCRI                                 |
|                                                                                                        | Psychiatric beds in specialized hospitals per 100 000 population         | ESCRI                                 |
|                                                                                                        | Social and family support network                                        | ENSE                                  |
|                                                                                                        | Disability amenable to mental disorder                                   | EDDES                                 |
| 2. Mental health care                                                                                  | Clinical guidelines compliant with SNS quality criteria                  | Guía Salud                            |
|                                                                                                        | Daily dose per habitant – antidepressives                                | SI-CF                                 |
|                                                                                                        | Daily dose per habitant – antipsychotics                                 | SI-CF                                 |
|                                                                                                        | Daily dose per habitant – hypnotics, relaxants and anxiolytics           | SI-CF                                 |
|                                                                                                        | % re-admissions                                                          | CMBD                                  |
|                                                                                                        | Morbidity attended                                                       | CC.AA                                 |
|                                                                                                        | % of prison inmates patients' discharges from a general hospital         | II.PP.                                |
| 3. Intra and inter-institutional coordination                                                          | Mental health care resources map                                         | SIAP-SM                               |
|                                                                                                        | Psychiatrists per population ratio                                       | ESCRI                                 |
| 4. Training                                                                                            | Qualitative report                                                       |                                       |
| 5. Research                                                                                            | Number of funded research projects                                       | ISCIII                                |
|                                                                                                        | Mental health research network                                           | ISCIII                                |
| 6. Information                                                                                         | Descriptive report                                                       | National Health Information Institute |

Source: Reproduced from Gómez Beneyto et al. 2010.

Notes: ENSE: National Health Survey;  
EDADES: Domiciliary Survey on Alcohol and Drugs in Spain;  
ESTUDES: National Survey on Drugs Use in Secondary School;  
CMBD: Minimum Hospital Data Set;  
INE: National Statistics Institute;  
ESCRI: National Survey of Inpatient Care Premises;  
EDDES: National Survey on Disability;  
Guía Salud: SNS Clinical Guidelines Development, Assessment and Dissemination;  
SI-CF: Pharmaceutical Information System;  
CC.AA: ACs' reports;  
II.PP: Penitentiary Health Information System;  
SIAP-SM: National Primary Health Care Information System – Mental Health;  
ISCIII: Institute of Health Carlos III.

- enhancement of information systems by ACs and the MSPS to improve feasibility of the strategy assessment, focusing on patient's morbidity, prescription information, and the structure and organization of mental health services available;
- inclusion of new indicators accounting for community-based model workforce: psychiatrists, clinical psychologists, mental health nurses and social workers; and
- shifting the assessment periodicity from every 2 years to every 4 years. This period was considered better suited for detection of trends.

One of the key barriers identified for the implementation and assessment of the strategy was the deficiency of information systems; efforts will thus be concentrated on providing these.

Tables 6.17 and 6.18 summarize the type of resources available across ACs (except Asturias, Cantabria and INGESA), both community- and hospital-based. The source chosen does not include Asturias and Cantabria ACs; however, it can be considered the most detailed and up-to-date proxy of mental health care resources information.

**Table 6.17**

Mental health care community-based network: distribution of resources, 2007

| ACs                | Mental health centres/units |                       | Psychosocial rehabilitation centres |                       | Labour reinsertion (posts) |
|--------------------|-----------------------------|-----------------------|-------------------------------------|-----------------------|----------------------------|
|                    | Adults <sup>a</sup>         | Children/ adolescents | Centres                             | Rate per 100 000 pop. |                            |
| Andalucía          | 72                          | 14                    | 9                                   | 0.11                  | –                          |
| Aragón             | 20                          | 8                     | 21                                  | 1.62                  | –                          |
| Madrid             | 15                          | 36                    | 62                                  | 1.02                  | 938                        |
| Murcia             | 36                          | 9                     | 5                                   | 0.36                  | 150                        |
| Valencia           | 14                          | 22                    | 14                                  | 0.29                  | –                          |
| Castilla-La Mancha | 58                          | 7                     | 19                                  | 0.96                  | –                          |
| Castilla-León      | 6                           | 9                     | 11                                  | 0.44                  | –                          |
| Catalonia          | 21                          | 70                    | 60                                  | 0.83                  | 484                        |
| Extremadura        | 36                          | 3                     | 6                                   | 0.55                  | –                          |
| Galicia            | 69                          | 7                     | 26                                  | 0.94                  | 0                          |
| Balearic Islands   | 15                          | 4                     | 5                                   | 0.49                  | –                          |
| Canary Islands     | 35                          | 2                     | 19                                  | 0.94                  | 197                        |
| La Rioja           | 8                           | 1                     | 1                                   | 0.32                  | –                          |
| Navarra            | 22                          | –                     | 1                                   | 0.17                  | –                          |
| Basque Country     | 39                          | 9                     | 22                                  | 1.03                  | –                          |
| Total              | 466                         | 155                   | 175                                 | –                     | –                          |
| Average            | 31.07                       | 11.07                 | 11.67                               | 0.67                  | –                          |
| Standard deviation | 21.11                       | 18.76                 | 20.24                               | 0.42                  | –                          |

Source: Spanish Association of Neuropsychiatry 2009.

Note: <sup>a</sup> 2005 figures.

**Table 6.18**  
Mental health care hospital-based network: distribution of resources, 2007

| ACS                | Short-term/acute hospitalization |                       |             |                               | Day hospital |              |                       |                                | Hospital rehabilitation |          |                       |          | Long-term hospital care |      |                       |  |
|--------------------|----------------------------------|-----------------------|-------------|-------------------------------|--------------|--------------|-----------------------|--------------------------------|-------------------------|----------|-----------------------|----------|-------------------------|------|-----------------------|--|
|                    | Units                            | Rate per 100 000 pop. | Beds adults | Beds children and adolescents | Units        | Posts adults | Rate per 100 000 pop. | Posts children and adolescents | Rate per 100 000 pop.   | Beds     | Rate per 100 000 pop. | Beds     | Rate per 100 000 pop.   | Beds | Rate per 100 000 pop. |  |
| Andalucía          | 19                               | 0.24                  | —           | 39 <sup>a</sup>               | 11           | 260          | 3.23                  | 252                            | 3.13                    | 280      | 3.47                  | —        | —                       | —    | —                     |  |
| Aragón             | 6                                | 0.46                  | —           | —                             | 2            | 30           | 2.31                  | —                              | —                       | 567      | 43.73                 | 164      | 12.65                   | —    | —                     |  |
| Madrid             | 16                               | 0.23                  | 55          | 39                            | 13           | 320          | 5.26                  | 170                            | 2.80                    | 190      | 3.12                  | 746      | 12.27                   | —    | —                     |  |
| Murcia             | 5                                | 0.36                  | 12          | —                             | —            | —            | —                     | 18                             | 1.29                    | 114      | 8.19                  | —        | —                       | —    | —                     |  |
| Valencia           | 19                               | 0.35                  | 16          | 5                             | 4            | 90           | 1.84                  | —                              | —                       | 119      | 2.44                  | 220      | 4.50                    | —    | —                     |  |
| Castilla-La Mancha | 6                                | 0.30                  | 14          | —                             | 5            | 90           | 4.55                  | 40                             | 2.02                    | 125      | 6.32                  | 242      | 12.24                   | —    | —                     |  |
| Castilla-León      | 11                               | 0.40                  | 30          | 8                             | 5            | 90           | 3.56                  | —                              | —                       | 290      | 11.47                 | 94       | 3.72                    | —    | —                     |  |
| Catalonia          | 17                               | 0.24                  | 87          | 72                            | 26           | 619          | 8.58                  | 388                            | 5.38                    | 452      | 6.27                  | 2,624    | 36.39                   | —    | —                     |  |
| Extremadura        | 2                                | 0.18                  | 180         | —                             | —            | —            | —                     | —                              | —                       | 124      | 11.38                 | —        | —                       | —    | —                     |  |
| Galicia            | 9                                | 0.32                  | —           | —                             | 7            | 135          | 4.87                  | —                              | —                       | 161      | 5.81                  | 560      | 20.20                   | —    | —                     |  |
| Balearic Islands   | 7                                | 0.58                  | 8           | 6                             | 5            | 78           | 7.57                  | —                              | —                       | 55       | 5.34                  | 23       | 2.23                    | —    | —                     |  |
| Canary Islands     | 7                                | 0.35                  | 12          | 4 <sup>b</sup>                | —            | —            | —                     | 90                             | 4.44                    | 208      | 10.27                 | —        | —                       | —    | —                     |  |
| La Rioja           | 1                                | 0.32                  | —           | —                             | —            | —            | —                     | —                              | —                       | —        | —                     | —        | —                       | —    | —                     |  |
| Navarra            | 3                                | 0.33                  | —           | 4                             | 3            | 50           | 8.25                  | —                              | —                       | 16       | 2.64                  | 210      | 34.66                   | —    | —                     |  |
| Basque Country     | 8                                | 0.23                  | 9           | 20                            | 21           | 527          | 24.60                 | 13                             | 0.61                    | 466      | 21.76                 | 1,114    | 52.01                   | —    | —                     |  |
| Total              | 136                              | 0.40                  | 272         | 137                           | 83           | 1,411.02     | 22.76                 | 171.92                         | 4.77                    | 2,724.18 | 41.29                 | 3,090.94 | 52.01                   | —    | —                     |  |
| Average            | 17.27                            | 0.33                  | 27.20       | 17.13                         | 7.55         | 128.27       | 6.78                  | 24.56                          | 2.81                    | 194.58   | 10.16                 | 309.09   | 19.09                   | —    | —                     |  |
| Standard deviation | 10.87                            | 0.10                  | 56.93       | 23.99                         | 8.04         | 218.32       | 6.34                  | 186.93                         | 1.69                    | 168.65   | 10.92                 | 845.38   | 16.65                   | —    | —                     |  |

Source: Spanish Association of Neuropsychiatry 2009.  
Note: <sup>a</sup> Psychiatric and paediatric beds; <sup>b</sup> Paediatric beds.

Psychiatric day hospital refers to a health care resource that provides active treatment for mental disorders within a day-care regime (see definition in *Day care* in Section 6.4 *Secondary/inpatient care*). Active treatment is understood as therapeutic use of space and time, integrating a variety of therapeutic activities conducted by a multidisciplinary team; the objective is to enhance patients' autonomy. Usually, a patient receives at least 20 hours of care per week and it is targeted on patients with severe mental disorders (excluding personality disorder, severe psychopathic behaviour, co-morbidity with mental disability, use of psychotropic drugs that may interfere with the therapy and may have an immediate suicide risk) in the age range 18–65.

It should be differentiated from other mental health care and social care resources listed below.

- Ambulatory care centres: these provide prompt treatment and follow-up for psychiatric patients, such as lithium clinics or neuroleptics depot programmes. The psychiatric day hospital may have these programmes among their offer but the therapeutic approach is wider, intensive and structured, limited in time to provide continuity of care and easy transition to the community.
- Ambulatory rehabilitation centres: these provide a rehabilitation programme to stabilized patients.
- Psychosocial centres: these are focused on leisure activities and re-socialization of stabilized patients living in the community.
- Labour insertion centres.



## 7. Principal health care reforms

### 7.1 Analysis of recent reforms

The evolution of the modern SNS, starting with the advent of democracy in the late 1970s, has been laid out extensively in Chapter 2. The health reforms of the 1980s were mainly oriented to the extension of coverage and access to health care services, completing the transition from the limited social security system inherited from General Franco's regime to a universal national health service funded from taxes. The economic context of the 1990s drove reforms in this period along the road of cost-containment and management innovation, with some delay with respect to other Western countries, but pretty much following the same track. This chapter will focus on the latest reforms, those implemented in the 2000s, which are quite different in both nature and purpose from the previous reforming efforts.

The motto of the last decade's reforms could be stated as "coordination and cohesion after devolution". The completion of total devolution of health competences to the ACs motivated a quest for mechanisms to balance the tension between federalization (regionally driven policy) and a national coherent view guaranteeing Spaniards' equal rights regardless of their region of residence. This is probably one of the most striking aspects of this reform process: coordination and cohesion orchestration seems to have been an ex-post priority, imposed by facts, rather than a pre-condition embedded in the devolution process. Indeed, the timing of crucial political decisions denotes more of a reactive than a proactive approach to the reform. The chronology of regulation and political action may illustrate this point (Box 7.1); the paragraphs below will elaborate further on this, focusing on four issues that are key to success in setting a devolution process that also guarantees equity across the country:

- creation of governing bodies and tools fitting the new federal architecture;
- definition of the common benefits package;

- allocation and distribution of funds to support regional administrations in assuming the devolved competences; and
- design of a national information system, able to account for both regional and national levels, allowing for transparency in monitoring performance and resources distribution across the country.

These four elements can be tracked in the reforms implemented in Spain over the last ten years and will be used as lead-line in describing the process and its timing.

### Box 7.1

#### Chronology of SNS-level regulation and political action, 2000–2010

---

2000 Seven ACs (accounting for two-thirds of the Spanish population) already held full health responsibilities funded through earmarked funds transferred from the national administration; the other ten regional health systems were centrally managed under the INSALUD, dependent upon the National Ministry of Health.

---

2001 In preparing for the due devolution of the INSALUD to the regional administrations, a new regulatory framework for the funding of ACs was approved (LOFCA 2001). The main feature was the integration of health funds within the ACs' general funding system; it also introduced the principle of fiscal co-responsibility by ceding certain taxation items to the regional administrations (see Chapter 3 for a full description of the system).

---

2002 Devolution of the INSALUD to the remaining 10 ACs. Completion of health competences devolution.

---

2003 Adoption of the SNS Cohesion and Quality Act; regulation on the SNS governance bodies and instruments. Rebirth of the CISNS as the highest coordination body.

---

2006 SNS common benefits package is defined, along with its review and update procedures, and some measures to foster concentration and economies of scale regarding the provision of highly sophisticated benefits included in the common package. Already prescribed by the 2003 Act, it took four years from total devolution for this agreement to be reached.

Launching of the SNS Quality Plan (also defined in the SNS Cohesion & Quality Act) including:

- \* national e-health plan Health Care Online/national health information plan,
- \* rational use of medicines and prescription
- \* HTA: agencies network
- \* Project AP21 (primary health care in the 21st century): aimed to reinforce primary health care as the cornerstone of the SNS increasing resolution capacity and emphasizing evaluation and outcomes measurement
- \* SNS Human Resources Strategy.

---

2008 Health Care Pact.

---

2009 New LOFCA.

---

2010 CISNS agreement/Resolution of 28 March 2010: "The impact of crisis on the SNS: saving measures and coordination".

---

## Creation of governing bodies and instruments fitting the SNS “federal” architecture

At the beginning of the 2000s, on the point of completing devolution, a new governance framework was badly needed. The role of the system’s main stakeholders, namely the national and regional administrations, needed to be dramatically reshaped to adapt to the new situation. On the one hand, the Spanish Ministry of Health lost its main *raison d’être* hitherto: regulation, planning, ownership and direct management of the SNS across most of the Spanish territory. Its new role was explicitly defined by the SNS Cohesion and Quality Act only in 2003, a year after the full enactment of devolution. The Act foresees the National Ministry of Health as overseeing authority, guarantor of rights and entitlements, but with no executive capacity over the organization and running of the 17 regional systems; therefore, a new governing culture was to be developed, equipped with new mechanisms and departing from the hierarchical line applied till then. ACs, on the other hand, were happy to undertake the new responsibilities but, to a certain extent, reluctant to bear the financial and political risks derived from them; a cultural transition to full responsibility was required on this side of the equation as well.

The SNS Act laid out the path, establishing knowledge management and consensus as the basis for SNS governance. The CISNS was reborn as the highest SNS coordination authority. The composition and organization of the CISNS<sup>1</sup> was changed to this effect, reducing the National Ministry’s representation to match that from each AC (one high representative per administration, either ministers or deputies). The National Ministry was given a mandate subordinated to the CISNS; new departments within the Ministry (the Agency for SNS Quality, comprising the National Health Information Institute, the SNS Observatory and the General Directorate of Quality and Planning), together with redefined existing departments (the General Directorate of SNS Cohesion and High Inspection, General Directorate of Public Health, General Directorate of Pharmacy, etc.), were meant to serve decision-making within the CISNS. Thematic commissions, committees and taskforces, under the auspices of the CISNS, became the norm in dealing with key issues in the SNS, such as human resources, pharmaceutical policy, benefits basket, information systems, public health, and so on (see Table 2.2 on p. 51 for a list of the working groups active in 2008). All these specific working groups gather experts and high-level officials

---

1 See Chapter 2 for a detailed description of the functioning of the CISNS.

holding specific responsibility from all ACs;<sup>2</sup> depending on the topic, different departments in the National Ministry will undertake the group's secretariat role. This format of evidence-building, enforced by the Cohesion and Quality Act, implies the use of regional know-how and seeking technical consensus across the SNS before the CISNS is presented with the political decision to be made. The results of the analysis undertaken and the recommendations derived are submitted to the CISNS plenary for endorsement and eventual adoption. Consensus is the decision mechanism within the CISNS; thus individual ACs are free to implement the recommendations issued by the Council; signed agreements have more binding power and often turn into national regulation, becoming totally binding for the ACs.

In this context, the Ministry's function becomes twofold:

- proposing and coordinating the development of work-lines feeding into and back from the CISNS's agenda; and
- fostering and monitoring voluntary implementation of recommendations and adhesion to agreements by ACs.

The described governance framework includes another instrument, the SNS Quality Plan, launched in 2005 under the auspices of the Conference of Autonomic Presidents; its contents, implications and functioning have been extensively described in *Regulating quality of care* in Section 4.1 *Regulation* and in Section 2.3 *Organizational overview*. It should be noted here that this tool has been used to articulate most of the relevant coordinated lines of work in the SNS. Beyond being the main tool for setting and disseminating quality norms and standards of practice, indicators, clinical guidelines, best practices registries and adverse events registries, the Plan has strong implications for crucial issues such as information systems, national health strategies tackling SNS priorities, reorganization of care, human resources, etc.

## Definition of the common benefits basket

Besides shaping the rules and the players' role in the devolved SNS, the Cohesion and Quality Act prescribed the definition of the SNS common benefits basket set as the basic entitlement for all Spaniards. The existing one dated from 1995, when most of the SNS was still under the INSALUD system, and was conceived more as a catalogue of services at the time rather than as a common basic

---

2 All ACs are invited and participation in each of the working groups is voluntary; the levels of involvement across ACs can, of course, vary according to the topic, but usually all, or a vast majority of the 17 regional ministries choose to participate, assigning experts and representatives to each commission.

entitlement. Over the years, ACs have introduced new benefits within their respective territories, originating a degree of variation in the benefits enjoyed by citizens across the country. The new benefits basket dictated by the Cohesion and Quality Act was to be comprehensive enough to include all the services listed in 1995 and updated to include new benefits consolidated in the meantime. The Act also dealt with modernizing some concepts such as public health benefits; the other innovation consisted in the prescription of an agreed updating procedure explicitly regulating the mechanisms and requirements for benefits to be included in the common basket. The CISNS was mandated to reach an agreement on the contents of the benefits package and establish the updating procedures. The CISNS Delegate Commission met in 2004 to elaborate the proposal, which was endorsed by the CISNS in 2006, yielding Royal Decree 1030/2006 regulating the SNS common benefits basket and its updating procedure.

The contents of the common benefits basket have already been detailed in Chapter 3 and Chapter 6; however, a description of the procedures governing its implementation as regulated in the Royal Decree is worthwhile at this point.

ACs are expected to develop their respective benefits baskets including, as a minimum, the common one; for some of the benefits, this may entail reorganization or broadening of health services for some ACs; thus, in the last four years, several ACs have published their detailed benefits basket. Regional health services that are not able to provide some of the services included in the common package within their territory are obliged to organize their provision by another regional health service for all patients in need in the region (see *Benefits basket* in Section 3.2 *Population coverage and basis for entitlement* and *Cross-border health care* in Section 2.4 *Patient empowerment*). Financial compensation is arranged through specific funds (see below). In addition, the common benefits basket includes highly technically complex services for severe conditions to be provided by accredited Services and Centres of Reference at national level (see Chapter 3, and *Regulating quality of care* in Section 4.1 *Regulation*). The committee (all administrations represented) in charge of accreditation has elaborated the criteria for selection of procedures and accreditation requirements; so far 44 procedures/conditions have qualified for this arrangement (MSPS 2009b), including complex transplants, rare diseases, critical burns patients, etc. These services are directly funded from the Health Care Cohesion Funds.

Regarding the procedure for updating the common basic package, the regulation explicitly requires technology assessment at the basis of any proposal; it also emphasizes the need to include cost elements in the evaluation, shifting closer to a cost–effectiveness framework. The criteria for a new technology to be considered relevant for assessment include the following:

- the candidate technology shows incremental effectiveness compared to available procedures (prevention, diagnosis, treatment, rehabilitation, life expectancy or pain-relief gains);
- new indications for existing medical procedures or products;
- new specific equipment required;
- substantial modifications of health care provision to patients or services organization;
- wide sectors of the population or risk groups are likely to be affected;
- a significant economic impact on the SNS is foreseen; and
- patients', professionals' or environmental safety is at stake.

The CISNS's Commission on Benefits, Insurance and Funding is mandated to carry out the common basket updating process. The Commission is formed by the officials holding responsibilities on the benefits basket in each AC (including INGESA, which manages the two autonomous cities in Africa), the civil servants mutual fund MUFACE and the Ministry (the General Directorate of SNS Cohesion and High Inspection coordinates this Commission, but other departments with responsibilities related to specific benefits are also involved, such as the General Directorate of Pharmacy or Public Health, etc.).

Proposals for new benefits may come from ACs or the central administration; they should be backed up with an assessment report by the National Agency for Health Technology Assessment in collaboration with the network of regional HTA agencies. The results of this assessment will be submitted to this Benefits Commission, which will report to the CISNS plenary for the final decision. Depending on the estimated budgetary impact, the Fiscal and Financial Policy Council (comprising economy authorities at regional and central level) may be called in.

This whole process is supported by the creation of a specific information system located at the Ministry; it contains up-to-date information on the benefits included in the SNS's common bundle, those included in each of the ACs, as well as MUFACE's basket. Although the information was initially intended

to be accessible to administrations, professionals and citizens, currently it is restricted to licensed users in different administrations. Therefore, complete comparative information about progress across the country is hard to provide.

### Allocation and distribution of funds

The allocation of funding to the ACs for the competences devolved from the central administration has been subject to a great deal of regulatory effort, the first bill dating from 1980 (Organic Law 8/1980, LOFCA), reviewed in 1996, 2001 and again in December 2009 (see Section 2.1 *Overview of the health system* for a description of the evolution of the system).

The 2001 revision of the LOFCA was the first allocation scheme in which health care earmarked transfers were abolished and integrated into the general funds allocation system (together with the rest of the devolved competences). As it was the system in force for the elaboration of state general budgets from 2002 (the year when devolution of health competences was completed) to 2010, the details of the 2001 system have been described in Chapters 2 and 3. However, the system has shown some flaws that the new revision, passed in 2009, is intended to address as from 2011 general budgets.

Both the constitution and the successive laws revising the LOFCA acknowledge three guiding principles for the system:

- financial autonomy: ACs' capacity to determine their expenditure and revenue level;
- sufficiency: assurance that ACs can count on sufficient financial resources to implement the competences devolved to them; and
- solidarity: articulation of mechanisms for resources redistribution and compensation for economic imbalances across ACs.

The flaws of the 2001 allocation system relate to each of these principles. Regarding the *financial autonomy principle*, financial transfers from the central administration still had a considerable weight in the budget made available to regional administrations; the income coming from the Sufficiency Funds amounted to about 30% of ACs' allowance; the figure increased to some 60% when the income derived from taxes over which regions had no jurisdiction was added (Herrero et al. 2007). When it comes to the *sufficiency principle*, the adjusted per capita allocation<sup>3</sup> showed variation across ACs, pointing to

---

3 Population size adjusted by extension and dispersion of the territory, insularity, protected population and population over 65 years old (see Section 3.3 *Revenue collection/sources of funds*).

the need to refine the criteria. Table 7.1 illustrates the point, using 2003 figures from the Ministry of Economy and Treasury. The application of the Sufficiency Fund is intended to enhance convergence across ACs in allowance per unit of need (adjusted per capita), smoothing the differences shown in the left-hand column; however, the adjustment applied to calculate the actual allowance (the column to the right), though narrowing the variability range to around 1, still shows some unwarranted imbalances, with La Rioja 20 points above the average level, while some others barely reached over 80% of it.

**Table 7.1**

Impact of the Sufficiency Funds on ACs' per capita allowance related to the national average

|                    | Index without SF | rank without SF | Index with SF | rank with SF |
|--------------------|------------------|-----------------|---------------|--------------|
| Madrid             | 1.48             | 1               | 0.95          | 12           |
| Balearic Islands   | 1.39             | 2               | 0.83          | 15           |
| Catalonia          | 1.25             | 3               | 1.00          | 9            |
| Aragón             | 1.05             | 4               | 1.05          | 5            |
| Valencia           | 1.01             | 5               | 0.92          | 14           |
| Cantabria          | 1.01             | 6               | 1.19          | 2            |
| La Rioja           | 1.00             | 7               | 1.20          | 1            |
| Asturias           | 0.95             | 8               | 1.04          | 7            |
| Castilla-León      | 0.87             | 9               | 1.06          | 4            |
| Murcia             | 0.83             | 10              | 0.92          | 13           |
| Andalucía          | 0.81             | 11              | 1.03          | 8            |
| Galicia            | 0.78             | 12              | 1.05          | 6            |
| Castilla-La Mancha | 0.74             | 13              | 0.99          | 10           |
| Extremadura        | 0.63             | 14              | 1.14          | 3            |
| Canary Islands     | 0.41             | 15              | 0.96          | 11           |

Source: Reproduced from Herrero et al. 2007.

Notes: National average = 1; SF = Sufficiency Funds.

The last principle invoked by the funds allocation system was that of *solidarity*. The redistribution mechanisms contemplated within the 2001 law proved vulnerable to several distorting factors; the first one is intrinsic to the lack of clarity on the equity goal pursued and therefore uncertainty as to whether the system aims for vertical or horizontal levering, or what the gold standard in assessing the levering attained is. The mixture of the instruments aimed at decreasing income differences across territories (vertical equity), with the levering funds intended to ensure that citizens enjoy a similar level of public services regardless of their region of residence (horizontal equity), sometimes yielded unintended results, such as negative discrimination towards citizens living in affluent territories. Another relevant factor impacting in the same direction is the ACs' demographic evolution; since the 2001 system used 1999 as the year of reference, the estimates



of the protected population were out of date; this issue becomes especially critical for the relatively more affluent regions, which have been experiencing more acute increases in population linked to immigration (note that they were already receiving relatively lower allowances as mentioned above).

However, it is fair to note that ACs have declined their prerogative to increase their revenue by raising the taxation elements under their control. In fact, most of them have chosen to reduce them by increasing fiscal exemptions and allowances within their territory (Herrero et al. 2007).

The new financing scheme defines the so-called fundamental public services (health, education and social services, including the new system, SAAD, and makes available leveraging block-grants to guarantee that those ACs in the lower range of income can provide the same amount and quality of these services as those in the higher income brackets. Actually, the funding committed to these fundamental public services amounts to 80% of the resources transferred (the remaining 20% supports expenditure for the other matters in which ACs hold competences). The per capita criterion is modified, shifting to population adjusted by effective health protected population, school age population and population aged 65 and over, plus the previous geographical factors.

As in the previous scheme, two sources of revenue are contemplated: elements of taxation ceded to regional administrations and assignments from the state's general budgets; however, the composition and tools are different.

- *Taxation*: ACs will increase their fiscal autonomy compared to the previous model, with the share of partly ceded major taxes increasing to 50% (personal income, VAT) and manufactures taxes up to 58% (hydrocarbons, alcohol, tobacco).
- The assignments stemming from the state's general budgets are structured as:
  - *Fundamental Public Services Guarantee Fund*: The basis for the calculation of the participation of ACs in this fund are: population, extension, dispersion, insularity (as before), plus the *equivalent protected population* (split into three subgroups: 0–4 years old, 5–64, and 65 years old and over, with different weights attached), population over 65 years old and population between 0 and 16 years old (school is compulsory up to 16 years old); and
  - *Global Sufficiency Fund*: Calculated as before, as the difference between estimated global funding needs for each AC and the result of adding up taxation revenue and the amount coming from the *Guarantee Fund*.

So much for the elements oriented to achieve horizontal equity. Regarding vertical equity-seeking instruments, the system relies on two Convergence Funds:

- *Competitiveness Funds*: These are oriented to compensate ACs which have below average total funding per adjusted capita once the horizontal equity instruments have been applied (they would be those below 1 in the left-hand column in the example shown in Table 7.1). The criteria for qualifying for this fund are (1) either the index of allowance per adjusted capita to average allowance per adjusted capita results is below 1, or (2) it is below the regional index of fiscal capacity per adjusted capita. Allocation is guided by the relative weight of each beneficiary's adjusted population on the total adjusted population across eligible ACs.
- *Cooperation Funds*: These are targeted towards ACs fulfilling one of the following criteria:
  - showing a GDP per capita below 90% of the average across common regime ACs<sup>4</sup> (calculated over the last three years);
  - with a population density below 50% of the average across common regime ACs (previous year); and
  - showing a population growth (calculated over the last three years) below 90% and a density (previous year) 25% above the average across common regime ACs.

Two-thirds of the Cooperation Funds will be allocated among qualified beneficiary ACs, distributed according to relative weight of their population over total beneficiaries' population, weighted by distance from the average GDP. The other third is reserved for ACs with a population growth below 50% and distributed according to population relative weight; however, the share of an AC could never exceed 40% of the total fund available; if funding is left once the entitlements are determined, the money will be distributed among other AC beneficiaries of the Cooperation Funds according to two other criteria.

One of the main virtues of this new system compared to the 2001 one is that it incorporates a dynamic approach to the adjustment variables used for allocation rather than fixing a certain year of reference. The 2009 system updates values each year, setting the previous year as the reference for calculations (or relevant periods as shown above). The other interesting

---

<sup>4</sup> See Chapters 2 and 3 for a distinction between special and common regime ACs.

lesson learnt from the implementation of the 2001 funding scheme is that unforeseen factors may come to distort the allocation goals; thus the system is to be re-assessed every five years.

## Design of a national information system

Undoubtedly, information constitutes the backbone of governance: the main structuring element or the main flaw depending on its development. Unfortunately, the SNS devolution process culminating in 2002 meant a certain striving by the ACs to “make themselves different”, combined with incentives to avoid what was perceived as “central control” inertia rather than accountability; this led to the fragmentation of the INSALUD information system and the freezing of all initiatives building towards a national health information system (see Chapter 2 and *Information systems* in Section 4.2 *Planning and health information management*). This configuration entailed a considerable delay and some waste of resources. The Cohesion and Quality Act already accounted for that situation, strengthening the support structure by creating the National Health Information Institute; it also emphasized the use of such information and the SNS accountability dimension by including in the design the brand new SNS Observatory. The CISNS Sub-commission on Information Systems was the designated place for technical discussions and consensus-building between ACs and with the central administration on this matter. However, the final boost came in 2005 under the umbrella of the SNS Quality Plan in the form of the National E-Health Plan/National Health Information Plan; the Plan established the enhancement of a national health information system as priority, pointing out three special areas of interest: the development of a national system of primary health care information (levering to the existing hospital-related sets), the development of unified eCR building on the existing regionally specific versions and the consolidation of unified individual health information card and a unique patient identifier valid across all ACs. In addition, the Plan introduced new elements of information for development, such as learning-oriented information systems for the notification of adverse events in the SNS (eventually to become a national register of adverse events and incidents). The achievements to date in this respect have been described in detail in Chapter 5. It should be enough to mention here that progress has been substantial and the clear change in perception of the need for and utility of an SNS information system encourages optimism about the future; nevertheless, the next hurdle seems to be the broadening of the audience. Aggregated information at national level is available for most of the information items; however, public access to

data allowing for comparison across ACs is restricted to licensed officials in the public administrations. Achieving accountability will entail the removal of such limitations.

Besides these four major axes of reform over the last ten years, other initiatives can be cited for their contribution to shaping the functioning of the SNS:

- measures for the rationalization of pharmaceutical expenditure agreed within the CISNS in 2004 (then translated into bills), such as the introduction of reference prices and aggressive generic use policies, including campaigns addressed to the public, professional incentives linked to generic prescription and pharmacists' obligation to substitute publicly funded prescriptions with a generic equivalent (see Section 3.1 *Health expenditure* for a description of the impact and Section 6.6 *Pharmaceutical care* for the regulatory framework);
- design of SNS workforce development and human resources policy through the work of the SNS Human Resources Commission in the CISNS. Important pieces of regulation have resulted from this effort, such as the Law 44/2003 on Regulation of Health Professions and Law 55/2003 rules on the Framework Statute of Statutory Professionals in the Health Services (see *Health professionals' career paths* in Section 5.2 *Human Resources*). They have contributed to setting the framework. The pace of implementation in this matter is rather disappointing, however; professional career paths prescribed in legislation are still under development in most ACs. The delay in creating the regional registries of professionals, which should build into the national registry, is even more striking; this information seems vital in any human resources planning to be implemented in preventing shortages of certain profiles.

## 7.2 Future developments

The 2008 *Pact for the Health System* (Section 2.2), besides the stated objective of rescuing key health policy issues from political struggle, implied an anticipation of the hot policy issues in future years. The topics listed there can be also read as a list of challenges ahead and pending issues for the SNS:

- human resources, including planning around the relative shortage of certain profiles
- development of SNS and regional benefits baskets

- accreditation of services and centres for national reference
- financial needs
- public health, including vaccination calendar
- maximum waiting times
- quality
- innovation.

The plenary of the CISNS (gathering health ministries) signed an agreement on 18 March 2010 on Actions and Measures to Promote SNS Quality, Equity, Cohesion and Sustainability, which confirms the relevance of the issues. This agreement contemplates a series of reforms split into short- and medium-term actions.

Among the short-term reforms are: the regulation of maximum waiting times in the SNS, the implementation of a unified vaccination calendar across the country, the extension of e-health services and finalization of implementation of the SNS e-health record; agreement was also reached on a procedure for SNS-level pharmaceuticals and health products purchasing, aggregating across regional health services to increase market power in negotiating with providers.

The medium-term measures agreed for adoption during 2010 and for implementation in the period 2010–2013 include among others:

- development of a common system for human resources planning with criteria of need and distribution across SNS, identifying shortages;
- setting up and keeping up to date the national registry of health professionals, including remuneration, career status and professional category;
- setting up a national system of health care outcomes indicators;
- reinforcing the role of health technology assessment linked to the updating of the SNS benefits basket.

Besides the attention given to the vaccination calendar in the agreement, there is a recent political initiative that will have a major impact in the field of public health, in the nature and organization of these services in the SNS. A draft bill on public health is being discussed in the Parliament and Senate. The contents have been elaborated, gathering a broad consensus with the involvement of relevant stakeholders, including social agents, scientific societies, different levels of the administration, universities and industry. Among its main characteristics are the adoption of the “Health in All Policies” approach, along

with a reorganization and clarification of the distribution of responsibilities among different administrations. The bill also prescribes the setting up of a national public health information system supporting a national public health strategy; it also deals with the mechanisms for the harmonization of public health human resources.

## 8. Assessment of the health system

### 8.1 Introduction

It is worth noting that, the foundational goals of the SNS, set out in the Health Care General Act (1986), remain at the centre of the system, together with the challenge of achieving them. As a matter of fact, it is fair to argue that universal coverage with free access to health care, solidarity in public financing through general taxation, integration of different health service networks, political devolution, and region-based organization and the development of primary health care have seen considerable accomplishments over the years. But, at the same time, these goals are still an essential part of the current debate on the SNS.

Coverage, as high as 99% in January 2009 (see Table 5.2), as well as changes in the nature of entitlement, from a social security system to a general taxation one, have effectively worked as a lever for income redistribution. Now concern has shifted from coverage to potential access barriers, like supply-driven waiting lists, the uneven effect of the current co-payment schemes or the unwanted side-effects of having a more regressive fiscal system funding the welfare state. Primary care development (and therefore regional organization) has been effectively extended, and gatekeeping is still considered an important asset of the system. Nowadays the debate focuses more on the quality of this kind of care, particularly flaws in its effectiveness, continuity of care and the lack of shared eCRs, which are still under development. Political devolution ended in 2002. At present, because of the evidence of an increasing variation in per capita expenditure across regions (see Fig. 3.6), concerns have increased regarding the uneven development of the health care system throughout the country.

Although it is impossible to determine whether the accomplishment of these goals has helped to improve the health of Spaniards, the sections in this chapter will provide a picture of the latest available health care performance figures. Nonetheless, a caveat has to be pointed out in advance. In general,

information about the health care system in Spain lacks a common performance measurement framework. In fact, the system is still based too much on resources or activity data (to the detriment of outcomes information), and there is still limited connectivity between health care information systems within and between regions across the country. This situation has hampered the possibility of carrying out a systematic assessment of the SNS performance, whatever the level of disaggregation. These circumstances drive us to use separate pieces of information to depict a sort of collage of the SNS performance. Finally, for the purposes of this chapter, health care performance will be described by using as a framework (to some extent) the dimensions from the OECD Health Care Quality Indicators Project (Kelley & Hurst 2006).

## 8.2 How does the SNS perform?

Looking at the international context, the SNS ranks, in general, in a fairly good position with regard to global medical health indicators. It should be noticed that, except for a few (e.g. low birth weight rates), Spain ranks high on almost all health status indicators: fifth in life expectancy at birth (third for females), fourth in life expectancy at age 65, fourth in female potential years of life lost (in the average for males), under the average in infant mortality rates (being the sixth in the average annual rate of decline since the 1970s).

In the sections below we will describe some figures for quality and safety, equity, efficiency and satisfaction, following the OECD framework.

### Quality and patient safety

Table 8.1 shows the evolution of mortality amenable to health care between 1991 and 2005. The SNS has experienced important reductions in amenable mortality: as high as 31.2% in conditions sensitive to primary prevention, 42.6% in conditions sensitive to medical care or a 33.5% reduction in years of life potentially lost.

Looking at the indicators in Table 8.2, in which SNS rates are compared with OECD rates, except for amputation and case-fatality in cardiovascular re-admissions, SNS figures are better than the average of the OECD countries (OECD 2009a).



**Table 8.1**  
Avoidable mortality in Spain, 1991–2005

|                                                                         | 1991  | 1996  | 2001  | 2005  | % change <sup>3</sup> |
|-------------------------------------------------------------------------|-------|-------|-------|-------|-----------------------|
| <b>Mortality in primary prevention sensitive conditions<sup>1</sup></b> |       |       |       |       |                       |
| Total                                                                   | 568.5 | 458.1 | 447.0 | 391.1 | -31.2%                |
| Male                                                                    | 861.9 | 697.2 | 686.7 | 609.7 | -29.3%                |
| Female                                                                  | 237.2 | 187.7 | 181.5 | 154.5 | -34.9%                |
| <b>Mortality in medical care sensitive conditions<sup>1</sup></b>       |       |       |       |       |                       |
| Total                                                                   | 138.6 | 108.3 | 88.7  | 79.6  | -42.6%                |
| Male                                                                    | 155.1 | 119.5 | 94.8  | 84.8  | -45.3%                |
| Female                                                                  | 120.1 | 95.5  | 82.0  | 74.0  | -38.4%                |
| <b>Years of life potentially lost (1–70)<sup>2</sup></b>                |       |       |       |       |                       |
| Total                                                                   | 49.3  | 44.4  | 36.5  | 32.8  | -33.5%                |
| Male                                                                    | 64.7  | 63.6  | 51.7  | 46.2  | -28.6%                |
| Female                                                                  | 24.7  | 25.1  | 21.2  | 19.2  | -22.3%                |

Source: INE 2009g.

Notes: Primary prevention sensitive conditions include lung cancer, cirrhosis and motor-vehicle accidents; Medical care sensitive conditions include diseases of respiratory and circulatory system and cancer; <sup>1</sup> Per 10 000 deaths; <sup>2</sup> Adjusted rates per 1 000 inhabitants; <sup>3</sup> % change: relative reduction.

**Table 8.2**  
Health care indicators in Spain: comparison with OECD average performance

|                              | SNS                                                    | OECD  | Ratio <sup>a</sup> |      |
|------------------------------|--------------------------------------------------------|-------|--------------------|------|
| <b>Amenable mortality</b>    | Ischaemic heart attack mortality rate (men)            | 78.0  | 126.0              | 0.62 |
|                              | Ischaemic heart attack mortality rate (women)          | 34.0  | 66.0               | 0.52 |
| <b>Cancer</b>                | Colorectal cancer mortality rate                       | 19.2  | 19.0               | 1.01 |
|                              | Breast cancer mortality rate                           | 16.7  | 20.8               | 0.80 |
| <b>Chronic conditions</b>    | Asthma admission rates aged 15 and over                | 44.0  | 51.0               | 0.86 |
|                              | COPD admission rates                                   | 139.0 | 201.0              | 0.69 |
|                              | Diabetes lower extremity amputation rates              | 26.0  | 15.0               | 1.73 |
|                              | Diabetes acute complications admission rates           | 18.0  | 21.0               | 0.86 |
|                              | CHF admission rates aged 15 and over                   | 234.0 | 234.0              | 1.00 |
|                              | Hypertension admission rates aged 15 and over          | 13.0  | 84.0               | 0.15 |
|                              | In-hospital fatality rates acute myocardial infarction | 6.1   | 4.9                | 1.24 |
| <b>Mental health</b>         | In-hospital fatality rates ischaemic stroke            | 6.5   | 5.0                | 1.30 |
|                              | In-hospital fatality rates haemorrhagic stroke         | 24.2  | 19.8               | 1.22 |
|                              | Unplanned schizophrenia re-admissions                  | 10.9  | 18.1               | 0.60 |
| <b>Communicable diseases</b> | Unplanned bipolar disorder re-admissions               | 11.1  | 16.8               | 0.66 |
|                              | Vaccination rates pertussis, aged 2                    | 96.4  | 93.5               | 1.03 |
|                              | Vaccination rates measles, aged 2                      | 97.2  | 92.0               | 1.06 |
|                              | Vaccination rates hepatitis B, aged 2                  | 96.3  | 95.1               | 1.01 |
| <b>Obstetrics</b>            | Vaccination rates influenza, aged 65                   | 62.3  | 55.9               | 1.11 |
|                              | Caesarean section rates                                | 26.0  | 25.7               | 1.01 |

Source: Based on OECD 2009a.

Notes: CHF: Congestive heart failure; <sup>a</sup> Ratio refers to the rates ratio between the Spanish and the OECD rates; All age-sex standardized rates are estimated over 100 000 inhabitants, except vaccinations and in-hospital fatality rates and re-admissions which are estimated over 100 eligible patients; Re-admissions in fatality rates are referred to admissions 30 days after admission.

With regards to patient safety indicators at national level, the OECD has recently released a paper which reports results on these indicators (Drösler, Romano & Wei 2009). Table 8.3 represents rates per 100 patients at risk. Although the authors warn about the context of this work (results were produced on the basis of a larger international validation process), suggesting it should not be used to make inferences regarding quality of care, the data shows a good SNS self-reported performance (always in the lower quartiles of adverse events).

**Table 8.3**  
Patient safety rates in selected OECD countries

|                | Foreign body<br>left in during<br>procedure<br>(PSI 5) | Catheter-<br>related<br>blood-stream<br>infection<br>(PSI 7) | Post-<br>operative<br>pulmonary<br>embolism or<br>deep vein<br>thrombosis<br>(PSI 12) | Post-<br>operative<br>sepsis<br>(PSI 13) | Accidental<br>puncture or<br>laceration<br>(PSI 15) | Obstetric<br>trauma –<br>vaginal<br>delivery with<br>instrument<br>(PSI 18) | Obstetric<br>trauma –<br>vaginal<br>delivery<br>without<br>instrument<br>(PSI 19) |
|----------------|--------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Belgium        | 0.007                                                  | 0.178                                                        | 0.470                                                                                 | 1.717                                    | 0.281                                               | 2.682                                                                       | 0.602                                                                             |
| Canada         | 0.007                                                  | 0.083                                                        | 0.199                                                                                 | 0.398                                    | 0.402                                               | 13.147                                                                      | 2.511                                                                             |
| Denmark        | 0.002                                                  | 0.033                                                        | 0.271                                                                                 | 0.240                                    | 0.045                                               | 6.043                                                                       | 2.582                                                                             |
| Finland        | 0.002                                                  | 0.004                                                        | 0.128                                                                                 | 0.264                                    | 0.033                                               | 3.521                                                                       | 0.633                                                                             |
| France         | –                                                      | –                                                            | –                                                                                     | –                                        | –                                                   | 1.556                                                                       | 0.338                                                                             |
| Germany        | 0.005                                                  | 0.128                                                        | 0.587                                                                                 | 0.391                                    | 0.120                                               | 7.905                                                                       | 2.257                                                                             |
| Iceland        | –                                                      | –                                                            | –                                                                                     | –                                        | –                                                   | –                                                                           | 6.681                                                                             |
| Ireland        | 0.003                                                  | 0.064                                                        | 0.575                                                                                 | 0.650                                    | 0.077                                               | 3.537                                                                       | 1.070                                                                             |
| Italy          | 0.002                                                  | 0.006                                                        | 0.220                                                                                 | 0.144                                    | 0.013                                               | 2.370                                                                       | 0.710                                                                             |
| Latvia         | –                                                      | –                                                            | –                                                                                     | –                                        | –                                                   | 9.821                                                                       | 0.193                                                                             |
| New Zealand    | 0.009                                                  | 0.425                                                        | 0.819                                                                                 | 0.505                                    | 0.356                                               | 7.055                                                                       | 1.704                                                                             |
| Norway         | 0.000                                                  | 0.026                                                        | 0.438                                                                                 | 8.081                                    | 0.000                                               | 3.768                                                                       | 2.021                                                                             |
| Portugal       | –                                                      | 0.057                                                        | 0.108                                                                                 | 1.493                                    | 0.116                                               | 1.698                                                                       | 0.632                                                                             |
| Singapore      | 0.006                                                  | 0.123                                                        | –                                                                                     | 0.140                                    | –                                                   | 7.434                                                                       | 0.975                                                                             |
| Spain          | 0.005                                                  | 0.189                                                        | 0.281                                                                                 | 0.440                                    | 0.183                                               | 2.611                                                                       | 0.505                                                                             |
| Sweden         | 0.002                                                  | 0.013                                                        | 0.170                                                                                 | 0.474                                    | 0.085                                               | 11.950                                                                      | 3.342                                                                             |
| Switzerland    | 0.011                                                  | 0.056                                                        | 0.399                                                                                 | 0.226                                    | 0.285                                               | 6.564                                                                       | 1.997                                                                             |
| United Kingdom | 0.005                                                  | 0.090                                                        | 0.754                                                                                 | 0.276                                    | 0.129                                               | 5.731                                                                       | 1.837                                                                             |
| United States  | 0.009                                                  | 0.205                                                        | 1.450                                                                                 | 1.349                                    | 0.362                                               | 16.626                                                                      | 3.811                                                                             |

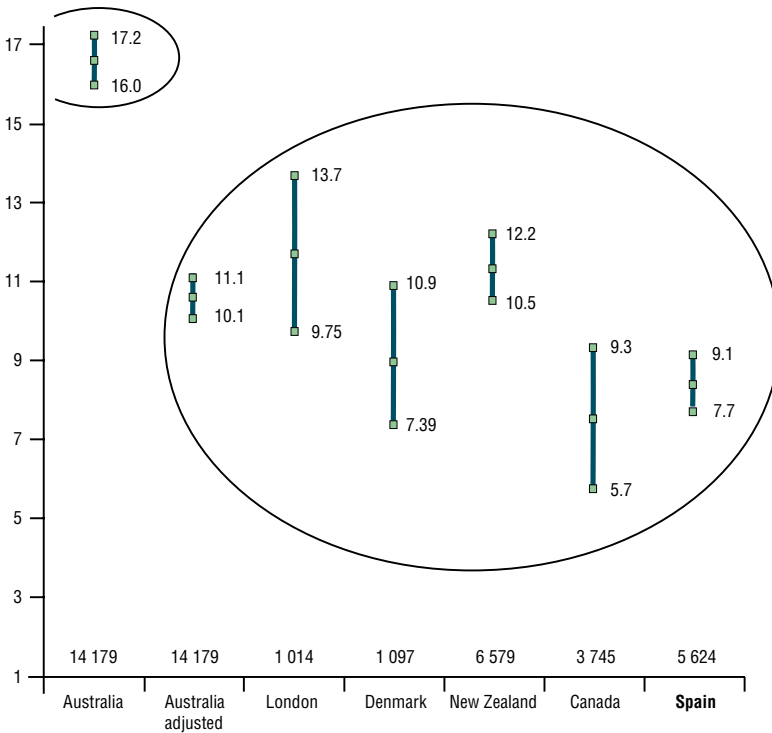
Source: Table taken from Drösler, Romano & Wei 2009.

Note: Maximum and minimum values printed in bold.

Due to the caveats suggested by the authors of the OECD paper, particularly those related to administrative data, it is worth mentioning some results available from ad hoc studies on adverse events amenable to health care. Unlike the OECD's paper method, these studies provide rates using a clinical

record-based, two-step method, from a representative sample of hospitals and admissions. Thankfully, a series of articles allows for comparison between countries (Aranaz-Andrés et al. 2008). As shown in Fig. 8.1, Spanish rates are below the average; moreover, considering the upper-limit confidence interval, it is the lowest value among other similar studies carried out in Australia, New Zealand, London, Denmark and Canada.

**Fig. 8.1**  
Hospital adverse events rates in six countries



Source: Modified from Aranaz-Andrés et al. 2008.

Notes: Adverse events rates in each national study, with their upper and lower limits of the confidence intervals are represented; Numbers along the bottom represent the sample size.

### Equity

Regarding horizontal equity, the latest international comparison available (data collection 2000 or nearest available) (OECD 2009a), showed that the SNS was highly equitable for GP visits (coverage was 99% as mentioned above). When it comes to specialist visits, the study found worse performance. Gatekeeping for public specialists, together with the fact that access to private specialists

was entirely dependent on either holding private insurance or OOP payments, could explain these results. Because of the complementary nature of the private specialists in Spain (except for dentists), these figures are not expected to have a high impact in terms of horizontal inequity. In any case, the data do not include the last devolution process and focus only on appointments, without considering other important dimensions of equity, such as access to effective and safe procedures.

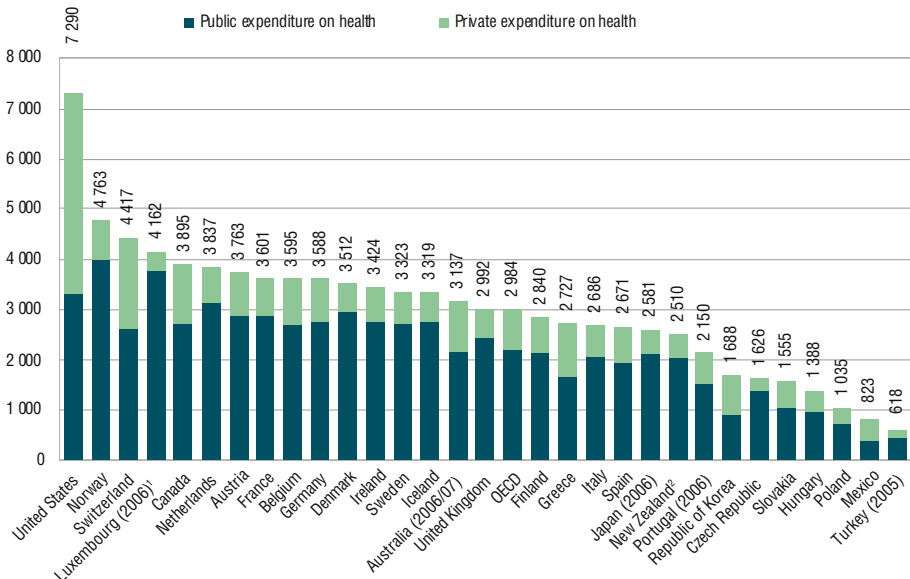
### Efficiency

Fig. 8.2 represents the health care expenditure per capita (public and private) in OECD countries. Spain spends US\$2671 PPP, 12% less than the United Kingdom, 24% less than Sweden and 31% less than Denmark, representing a GDP share of 8.5%. On the other hand, in the last decade (Fig. 8.3), Spanish expenditure only grew by 2.7%, compared to the OECD average of 4.1% (OECD 2009b).

It has been argued that these numbers, particularly the slight growth over the years, together with the relatively good trend on indicators amenable to health care, provide strong evidence of SNS global efficiency.

**Fig. 8.2**

Health care expenditure per capita (public and private, 2007 or latest available year US\$ PPP)

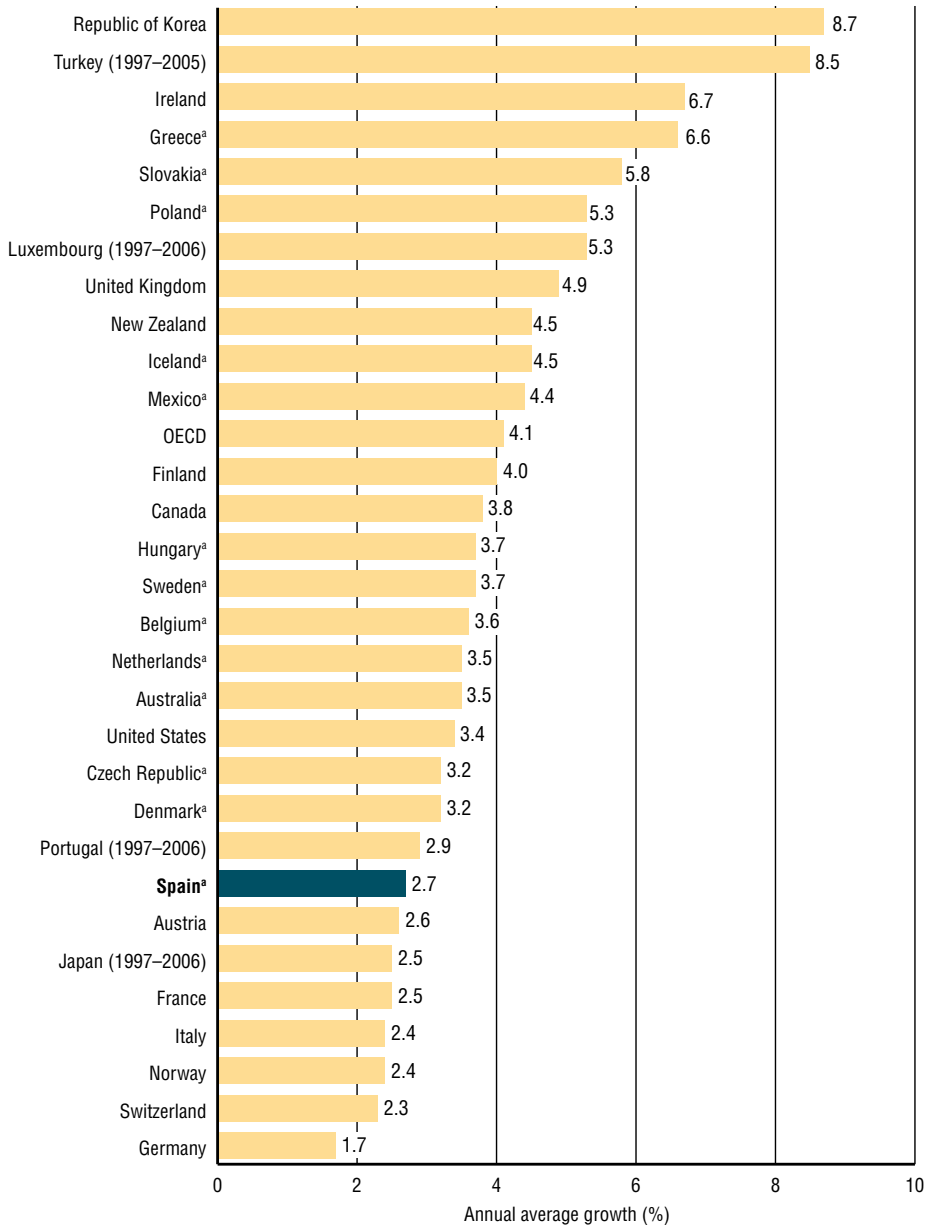


Source: OECD 2009b.

Notes: <sup>1</sup> Health expenditure is calculated on insured rather than resident population; <sup>2</sup> Current health expenditure.

**Fig. 8.3**

Expenditure annual growth as a share of GDP, 1997–2007



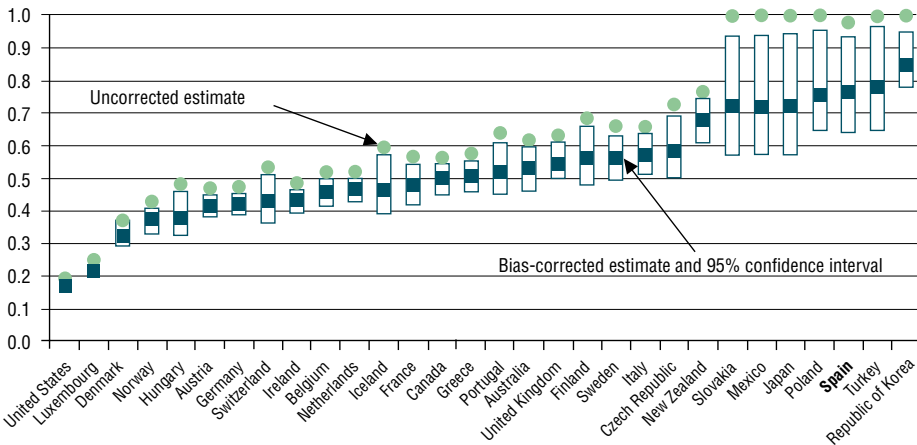
Source: OECD 2009b.

Note: <sup>a</sup> Growth rates adjusted to take into account of series breaks. Thus the real growth in the year of the series break has been assumed to be the average growth of the preceding and following years.

A more formal exercise, published by OECD (Joumard et al. 2008), aimed to “shed light on the contribution of health care and other determinants to the health status of the population, and to provide evidence on whether or not health care resources are producing similar value for money across OECD countries?”. In those analyses where Spain was included, considering life expectancy as the output, efficiency varied depending on the economic input: considering health care spending, Spain was regarded as highly efficient; considering practitioners’ workforce, Spain ranked slightly over the average. Figs 8.4a and 8.4b show these results.

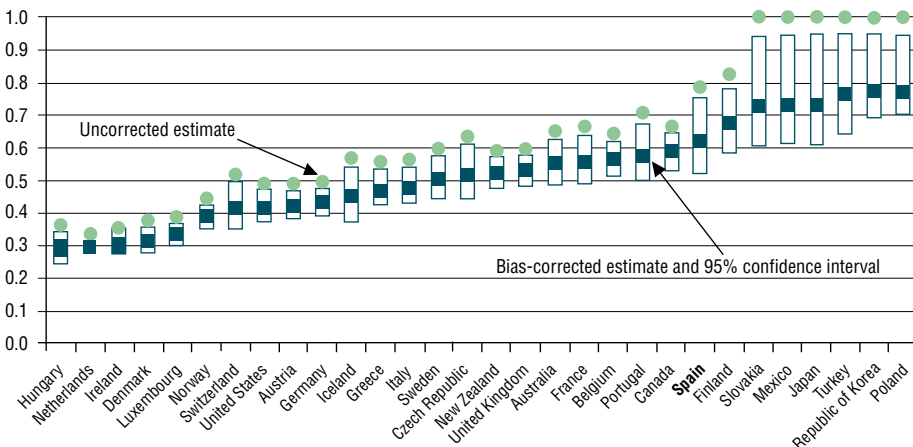
**Fig. 8.4a**

Efficiency scores for OECD countries: health care spending (cost efficiency)



**Fig. 8.4b**

Efficiency scores for OECD countries: health practitioners (technical efficiency)

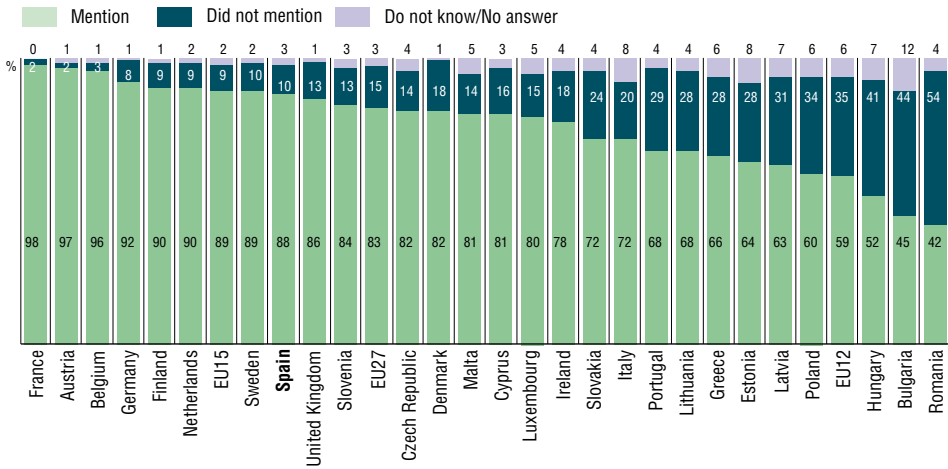


Source: OECD calculations from Joumard et al. 2008.

### Satisfaction

Although not directly intended to compare satisfaction among countries, the 2007 Eurobarometer survey on cross-border health care provides some indirect evidence (Gallup Organization 2007). Asking citizens for the reasons they would not travel to other countries to obtain health care, among those who mention “Satisfaction with the health care at home”, Spain was slightly lower than the EU15 average, with 88% of self-reported satisfaction (Fig. 8.5).

**Fig. 8.5**  
Satisfaction with health care received in respondents’ own country



Source: Gallup Organization 2007.

### 8.3 How is performance within the country?

International evidence has shown a fairly good comparative performance in all the dimensions studied. However, although international comparison offers important insight, it is crucial in the case of a quasi-federal country such as Spain to provide evidence from within the country.

The CISNS, using the framework from the European Community Health Indicators Project (ECHI Project), recently approved a basic common set of indicators (National Health Information Institute 2007). In 2007, the first report aimed at assessing SNS performance at national level was produced. Unfortunately, this important initiative at national level barely offered within-

country information, and was restricted to entitled regional officers. As a consequence, comparisons at regional level hardly go beyond information that had already been released about resources or activity (see Chapter 5).

For this reason, evidence from ad hoc studies will be used in depicting SNS performance within the country. Nevertheless, it is important to point out that most of this evidence comes from clinical and administrative data gathered from ecologic, cross-section or, at best, time-trend series designs. Caveats on inference should be considered in advance and, therefore, authors have limited their evaluative comments to describing the results, rather than assessing the underlying causes.

## Equity

A paper examining the evolution of equity in access to health care (i.e. doctor visits, emergency room visits and hospitalization) over the period 1987–2001, found that differences in income did not lead to different access given the same level of need. However, having private health insurance drove differences in horizontal equity, particularly on specialist visits, in which private insurance, as well as income, is important (García & López 2007).

Nevertheless, these observations, even though they cover a long period of time, are not recent, making it impossible to determine whether the figures are the same today. In any case, because these results are essentially affecting complementary services (after all, services afforded by private health insurance are privately provided), the implications of these findings are expected to be limited.

Another approach to equity of access assessment comes from the studies of geographical variations in medical practice carried out by the Atlas VPM research initiative.<sup>1</sup> This approach assumes that differences in utilization could be a proxy of inequity of access in those evidence-based services (i.e. driven by an important burden of knowledge about their effectiveness and safety). In these cases, differences in age-sex standardized rates by income level will be assumed as inequities in access.

As shown in Fig. 8.6 and Table 8.4, except for conservative mastectomy at ages between 50 and 70, which appears to have more standardized utilization rates in richer health care areas (only the first shows statistical significance),

---

1 See: [www.atlasvpm.org](http://www.atlasvpm.org)

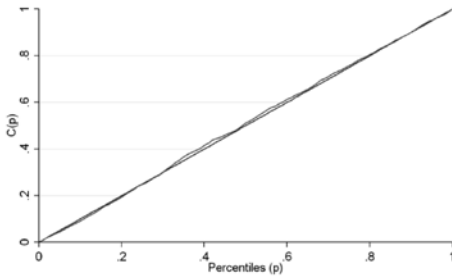


the remaining procedures are either pro-poor (e.g. PTCA) or merely do not show statistically significant differences with respect to the equality curve (45° Lorenz curve).

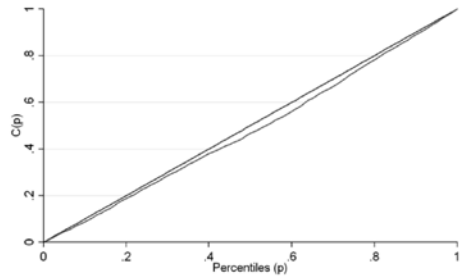
**Fig. 8.6**

Access inequalities in six evidence-based procedures>

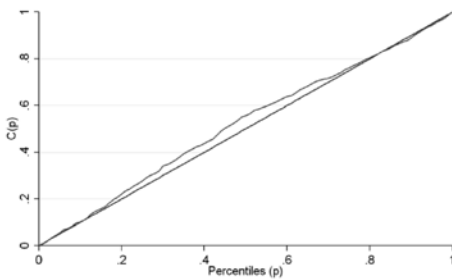
***Appendectomy***



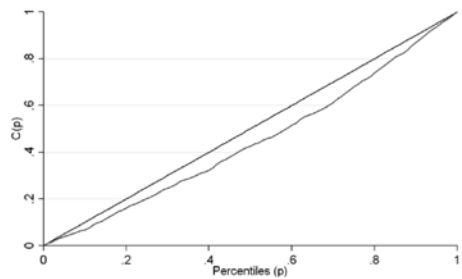
***Colectomy in colorectal cancer***



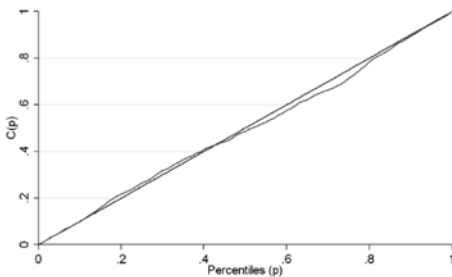
***PTCA with stent***



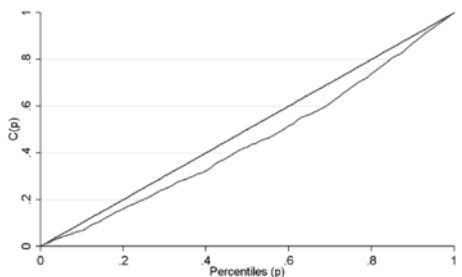
***Conservative mastectomy (aged 50 to 70)***



***Laparoscopic cholecystectomy***



***Knee arthroplasty***



Source: Based on data from Atlas VPM (2009).

Note: Figures represent concentration curves, in which utilization rates distribution is related to population social gradient (income). Curves above the diagonal indicate more utilization in poorer health care areas. Curves below the diagonal indicate more utilization in richer health care areas. The greater the distance from the diagonal, the greater the inequality. The analysis includes 180 health care areas in the country.

**Table 8.4**

Concentration indexes in six procedures

| Service/procedure                       | Concentration Index (CI 95%) |
|-----------------------------------------|------------------------------|
| Appendectomy                            | -0.01 (-0.03 to 0.02)        |
| Colectomy in colorectal cancer          | 0.04 (0.02 to 0.05)          |
| Laparoscopic cholecystectomy            | 0.01 (-0.01 to 0.04)         |
| PTCA with stent                         | -0.04 (-0.08 to -0.002)      |
| Conservative mastectomy (aged 50 to 70) | 0.10 (0.07 to 0.13)          |
| Knee arthroplasty                       | 0.04 (-0.003 to 0.08)        |

Source: Based on data from Atlas VPM (2009).

From this perspective, it could be said that differences in geographical utilization of evidence-based services are not driven by differences in the economic status of health care areas, but by other factors, such as distance from technology providers.

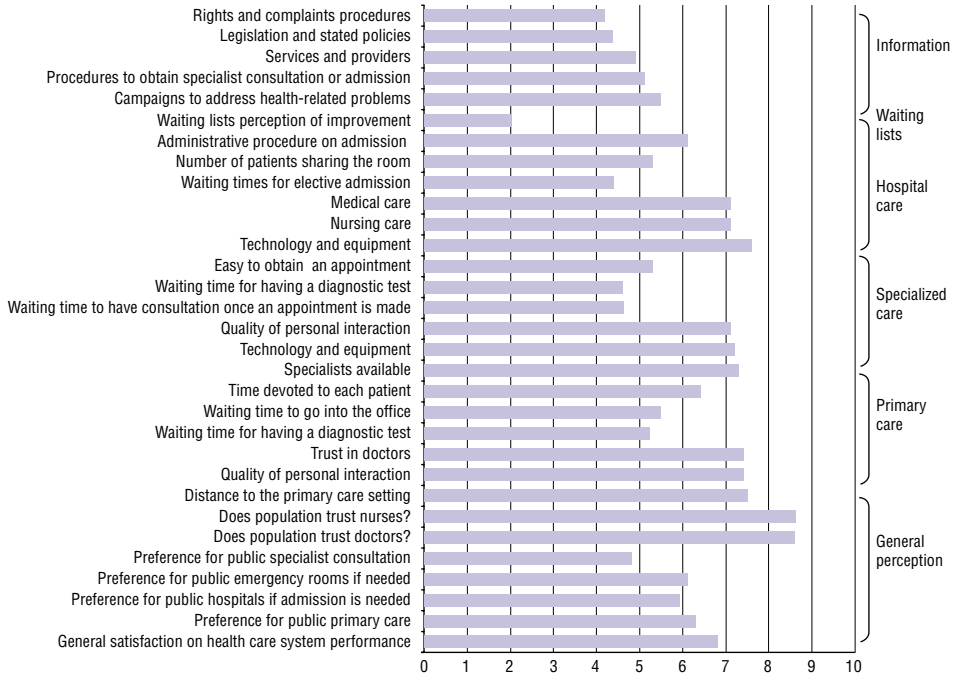
## Satisfaction

Since 1995, a specific survey, the so-called Health Care Barometer, has investigated citizens' expectations and opinions, in order to inform health policy priorities; this survey offers useful information about, among other dimensions, the performance of the SNS.

This section shows the latest available data on satisfaction (MSPS 2009a). In that year, health care was the most important social service for 28.1% of the population. The survey found that there was a general satisfaction with SNS health care performance (68% of citizens think that the system's performance is fairly good, needing some changes). There was a clear preference for the public system over the private one for primary care, emergency care and hospital care; with regard to specialist consultations, however, although the public system was preferred, the figures were similar to the preference for consultations with a private specialist (47.9% vs 43.6%). In general, citizens trust professionals, and score equipment and technologies highly. Citizens feel the personal interaction with professionals was appropriate, whatever the level of care (scored over 7 out of 10) (see Fig. 8.7).

Institutional information had worse scores, though. Citizens still have problems with information about the services provided in their geographical area (4.9), legislation and policies (4.4), and rights and complaints procedures (4.2) (see Fig. 8.7).

**Fig. 8.7**  
Citizens' perceptions of the SNS



Source: Based on MSPS 2008a.

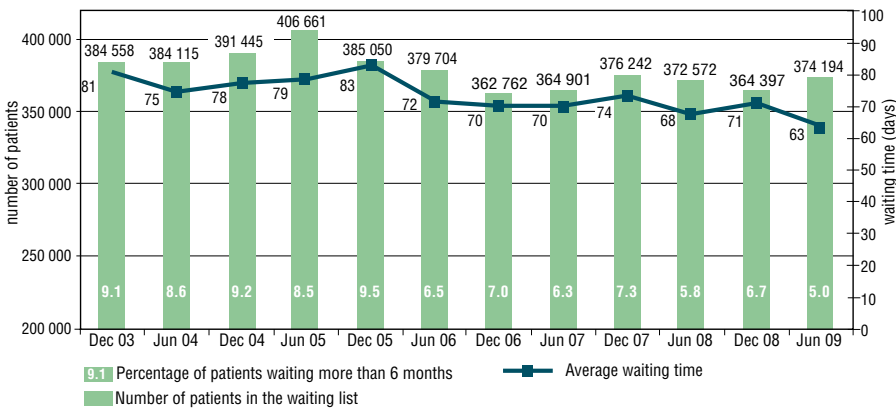
Note: Except for the case of general perception, in which percentage of respondents with a high level of satisfaction is represented, in the remaining items the bars represent satisfaction scores on a scale of 0 to 10.

However, it is worth going back to *Complaints procedures (mediation, claims) and patient safety and compensation* in Section 2.4 *Patient empowerment* to point out that, since 2002, the positive perception of the SNS by the population has dropped by 10 points, increasing the number of people who think that the system became worse in this period (see Fig. 2.4). Probably the underlying reason is the perception that waiting lists are evolving negatively, together with the perception that health care authorities are unable to deal with them (Fig. 2.5).

In fact, waiting times items had the worst scores in the 2008 Health Care Barometer: satisfaction with regard to waiting lists scores 2 out of 10 points; waiting time to have a consultation once the patient is included on the waiting list 4.6, waiting time to have a diagnostic test scored 4.6 and delays on elective admissions scored 4.4 (see Fig. 8.7).

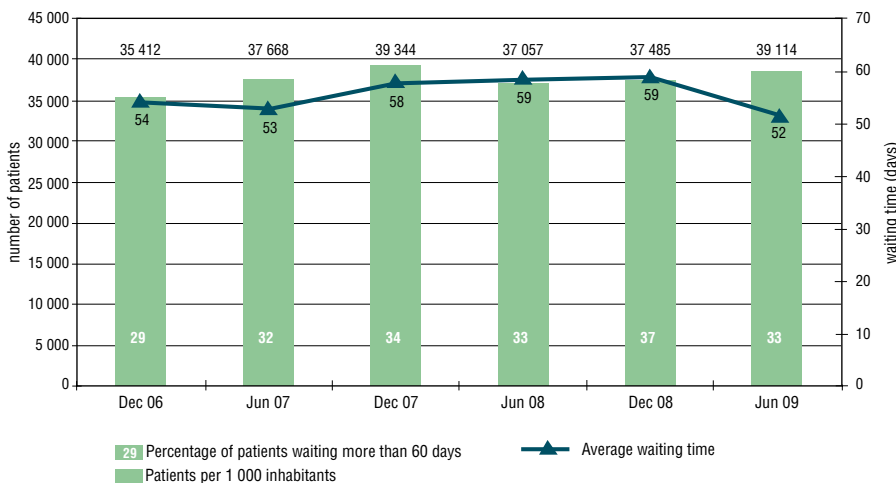
Contrasting these scores with the actual evolution of waiting lists might be helpful in order to understand the discontent. Taken from the SNS National Survey of Waiting Lists (National Health Information Institute, 2009b), a self-reported information system agreed in the CISNS, Figs 8.8 and 8.9 show data on surgery and specialists' consultation waiting lists. On the one hand, although the number of patients on the waiting list remains over 350 000 without much change, the average waiting time has decreased from 81 days to 63 days since

**Fig. 8.8**  
Surgical waiting list, 2003–2009



Source: National Health Information Institute 2009b.

**Fig. 8.9**  
Specialist consultation waiting list, 2006–2009



Source: National Health Information Institute 2009b.

2003. On the other hand, the percentage of patients waiting more than six months has dropped from 9.1% to 5%. This is not the case for specialists' consultations, where figures have not improved since 2006: the number of patients accessing the waiting list has increased, as well as the average time they wait and the percentage of patients who are above the "socially acceptable" threshold.

## Quality and safety

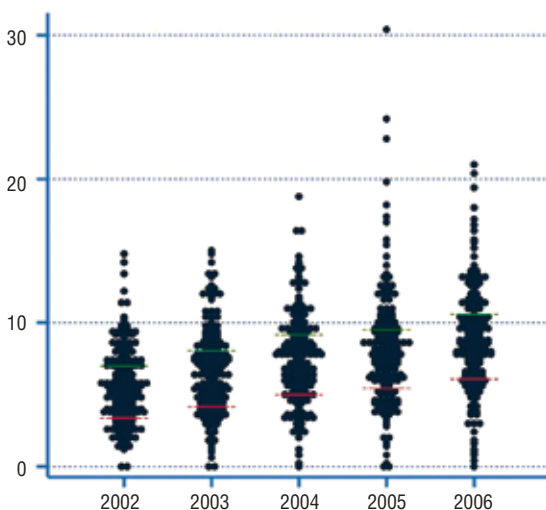
As mentioned, although the SNS performs fairly well in terms of quality of care and amenable outcomes, wide variations in performance within the country have been described. Figs 8.10 to 8.18 represent quality and safety indicators developed in the Atlas VPM research initiative. The examples, commonly used as performance indicators by international bodies, have been selected because of the burden of disease or activity that they represent. On the other hand, they correspond to several SNS national strategies.

## Cardiovascular ischaemic disease

Fig. 8.10 represents the uneven access to percutaneous transluminal coronary angioplasty with stent (PTCA). Variations by as much as five times among health care areas are shown; and although PTCA is increasingly used over the period, these differences remain, ultimately pointing to uneven access to effective innovations.

**Fig. 8.10**

Percutaneous transluminal coronary angioplasty, 2002–2006

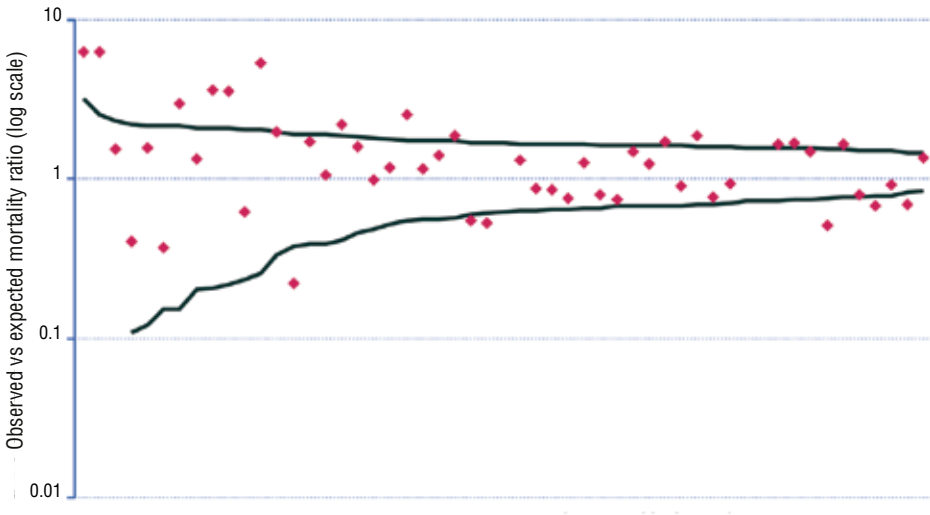


Source: Based on data from Atlas VPM 2009.

Note: Dots represent health care area PTCA rates. Rates are calculated over 10 000 inhabitants.

Fig. 8.11 shows wide differences in mortality after PTCA, depending on the hospital where a patient is treated. The funnel plot represents the ratio between the observed and the expected mortality. Although hospitals included in the image are those “high-tech” hospitals (i.e. high volume of PTCA), there are huge differences in mortality once the case-mix of each hospital was adjusted: more than two times of risk difference.

**Fig. 8.11**  
Mortality after PTCA



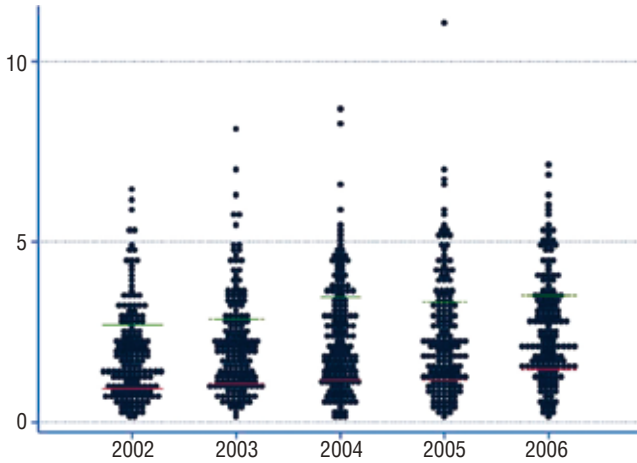
*Source:* Based on data from Atlas VPM 2009.

*Note:* Each dot represents the observed versus expected mortality after PTCA in a particular hospital. Dots over the “1 marked-line” have more mortality than expected. Those hospitals above the upper confidence interval line are hospitals in which mortality is more than expected, once chance has been ruled out.

## Cancer

Fig. 8.12 describes variation in prostatectomy rates in prostate cancer patients over the period. Even though prostate surgery is not an effective treatment to increase prostate cancer survival, and adverse events are frequent and severe, prostatectomy rates increase over the years, as does variation among health care areas (7.7-fold factor).

**Fig. 8.12**  
Prostatectomy in prostate cancer, 2002–2006

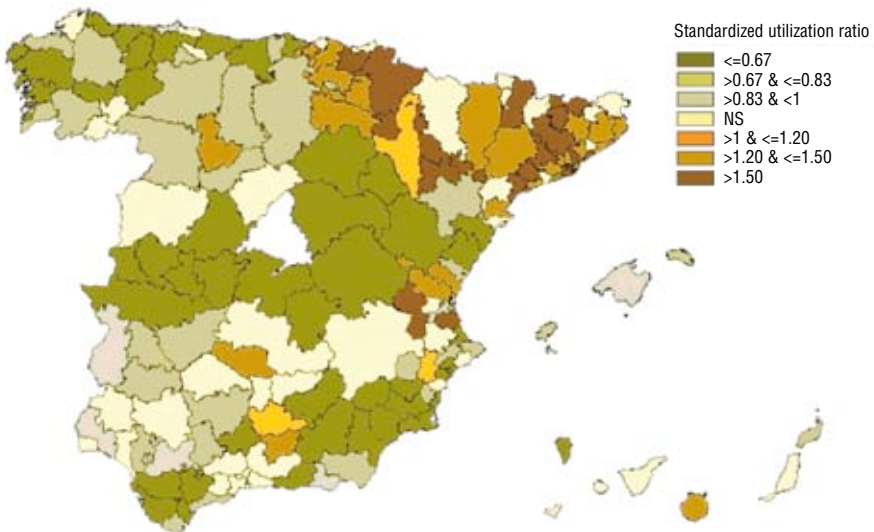


Source: Based on data from Atlas VPM 2009.

Note: Dots represent health care area prostatectomy rates. Rates are calculated over 10 000 inhabitants.

Fig. 8.13 illustrates variations in conservative mastectomy in women. A slight increase in the use of conservative mastectomy is being seen across

**Fig. 8.13**  
Variations in conservative mastectomy in breast cancer



Source: Based on data from Atlas VPM 2009.

Note: NS: not significant; 180 health care areas are represented. Areas above 1 perform more conservative mastectomies than expected; areas below 1 perform less conservative mastectomy than expected.

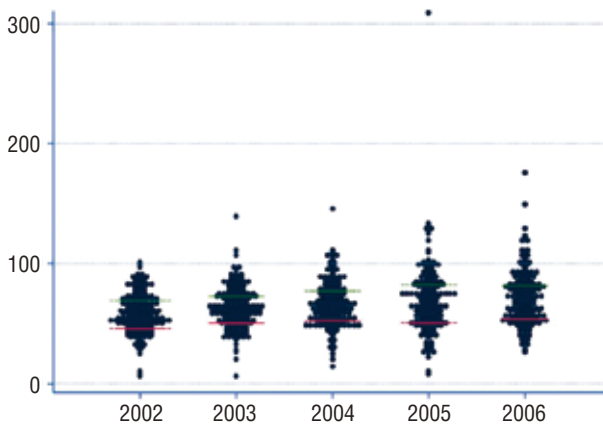
the country; however, despite it being the first-choice treatment, a difference of between 4- and 7.7-fold can be found between health care areas. Besides, women living in poorer communities have less probability of receiving it.

## Obstetric care

Fig. 8.14 illustrates differences on Caesarean-section rates and the evolution over the years. Unwarranted (not driven by need) growth in Caesarean-section rates can be observed; and variation over the time declines, as those providers initially performing less surgery converge towards the more active ones. In any case, there remain differences of around 2.5-fold.

**Fig. 8.14**

Evolution of Caesarean-section rates, 2002–2006



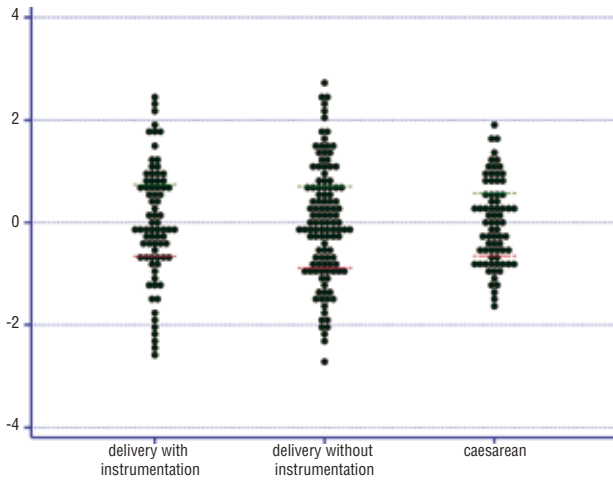
*Source:* Based on data from Atlas VPM 2009.

*Note:* Dots represent health care area Caesarean-section rates. Rates are calculated over 10 000 inhabitants.

Although incidence of adverse events after delivery is very small, huge systematic variation could be observed among hospitals. Fig. 8.15 describes variation in vaginal trauma after delivery without instrumentation (55% over what would be expected to occur by chance), after delivery with instrumentation (46% over that expected by chance) and after Caesarean-section (57% over that expected by chance).



**Fig. 8.15**  
Trauma after delivery



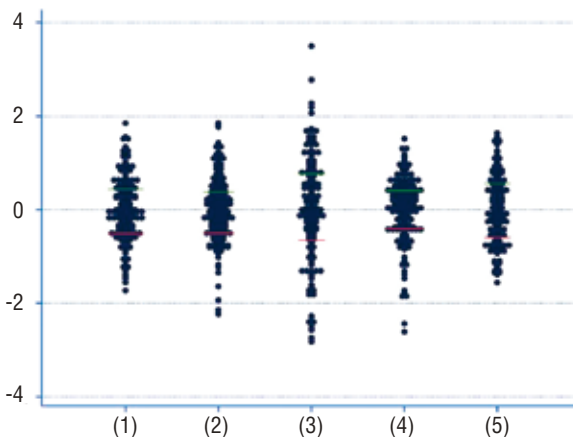
Source: Based on data from Atlas VPM 2009.

Note: Dots represent health care area log trauma after delivery rates. (Log rates are centred on the average to compare, in the same exhibit, conditions with extremely different prevalence.) Rates are calculated over 10 000 inhabitants.

### Patients' safety

Immense variation, not attributable to case-mix, among hospitals is described in Fig. 8.16: 2.2-times difference in mortality rates in low-mortality DRGs;

**Fig. 8.16**  
Patient safety indicators



Source: Based on data from Atlas VPM 2009.

Note: Dots represent health care area log patient safety indicator rates. Utilization rates are calculated over 10 000 inhabitants (1) mortality in low-mortality DRGs; (2) decubitus ulcer; (3) catheter-related infection; (4) pulmonary thromboembolism and deep-vein thrombosis after surgery; and (5) post-operative sepsis.

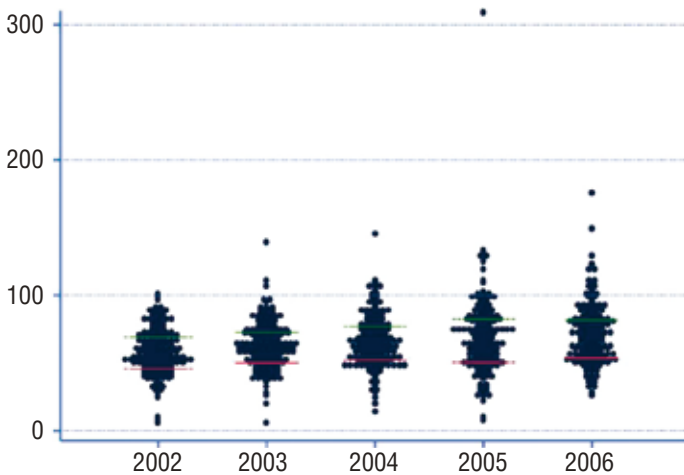
4.5-times difference in decubitus ulcer; 3.8-times difference in catheter-related infection; 2.2-times difference in pulmonary thromboembolism and deep-vein thrombosis after surgery; and 4.2-times difference in post-operative sepsis.

### Chronic conditions

Fig. 8.17 illustrates differences in avoidable hospitalization related to short-term diabetes complications. Although evidence about how to treat and follow diabetic patients has been spread over the years, rates and variations remain (10-times difference among health care areas in 2002, and 12-times difference in 2006).

**Fig. 8.17**

Avoidable admissions in short-term diabetes complications, 2002–2006



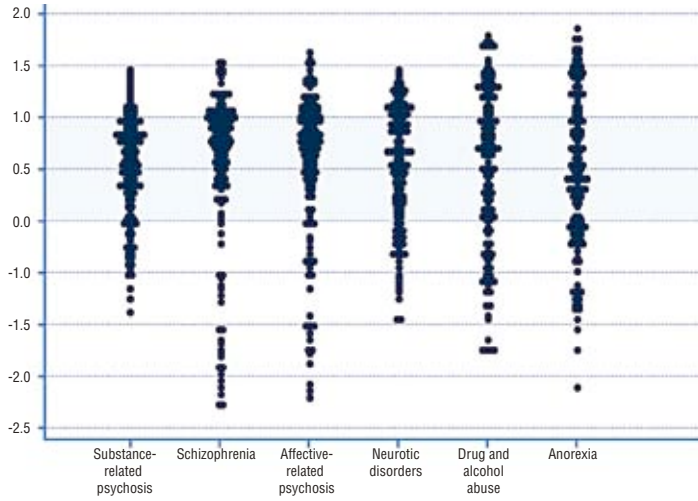
*Source:* Based on data from Atlas VPM 2009.

*Note:* Dots represent health care area avoidable admission rates. Rates are calculated over 10 000 inhabitants.

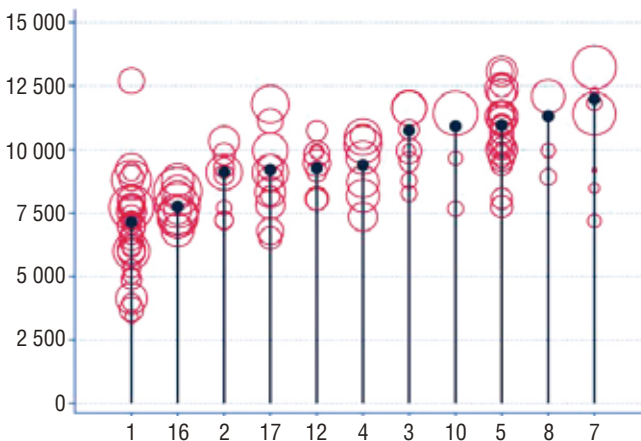
### Mental health

Figs 8.18a and 8.18b illustrate two examples of variations in the management of mental health conditions within the country. In the first, hospitalization in acute-care hospitals, variability is extreme (difference between a 10-fold factor in the case of substances-related psychosis and a 28-fold factor in affective psychosis). In the latter figure, variations in expenditure in psychotherapeutic pharmaceuticals are high and highly variable; in general, more variable within (than between) ACs.

**Fig. 8.18a**  
Hospitalizations in mental health



**Fig. 8.18b**  
Expenditure on psychotherapeutic pharmaceuticals



Source: Based on data from Atlas VPM 2009.

Note: In Fig. 8.18a, dots represent health care area log admission rates. Rates, centred on the average in order to compare different conditions with different prevalence, are calculated over 10 000 inhabitants. Fig. 8.18b represents health care areas (bubbles) within an AC. The bigger the bubble, the larger the population represented. Black dot represents the median value of expenditure in each AC.

## Efficiency

With regard to allocative efficiency, there are no formal studies, or even analytical exercises, which compare the efficiency of using different inputs (i.e. primary vs hospital care, drug therapies vs other therapies, doctors vs nurses, long-term care vs acute care, etc.) to obtain better health care outcomes. In the authors' opinion, trends shown in Chapters 5 and 6 (Figs 5.2, 5.3 and 6.4) should not be considered as proxies of allocative efficiency.

The same applies to technical efficiency. Although trends in substitution rates (e.g. day-case surgery) show a theoretical improvement in productivity, there are no empirical studies in which these trends reflect a similar improvement in health care outcomes.

A limited approach to technical efficiency within the country might be estimated using DRG-adjusted length of stay. Following the original idea (Fetter 1991), a longer length of stay than that expected for the average patient in each DRG would be a proxy for unnecessary costs; therefore those hospitals that need a longer stay to treat the same case-mix of patients than the standard would be considered technically inefficient. An ad hoc analysis has been carried out for the purposes of this section, with all 2006 admissions in 176 public acute-care hospitals. Hospitals were classified into four categories, according to the number of beds (less than 201 beds, between 201 and 500, between 501 and 1000, and more than 1000 beds). A technical efficiency index, so-called "functional index" (FI), was calculated. When the FI was above 1, hospitals were less efficient than the standard ("average" efficiency calculated using the universe of admissions produced by the hospitals in the sample); when the FI was below 1, hospitals were more efficient. In Table 8.5, the FI range between hospitals (extreme values), and the number of hospitals whose technical efficiency index was worse than the standard by more than 15% and 25%, are shown.

**Table 8.5**

Technical efficiency in acute hospitals

| Category (No. of beds) | N (hospitals) | FI range  | Over 15%<br>n (%) | Over 25%<br>n (%) |
|------------------------|---------------|-----------|-------------------|-------------------|
| < 201                  | 65            | 0.11–1.57 | 6 (9)             | 4 (6)             |
| 201–500                | 57            | 0.24–1.43 | 10 (17)           | 7 (12)            |
| 501–1 000              | 38            | 0.74–1.39 | 10 (26)           | 3 (8)             |
| > 1 000                | 16            | 0.87–1.23 | 3 (20)            | –                 |

Source: Based on data from Atlas VPM 2009.

Note: FI = Functional Index.

Differences in efficiency, within the categories, are remarkable. Particularly noticeable was the fact that 26% of hospitals, with more than 501 and less than 1000 beds were at least 15% more inefficient than the standard. At the same time, 12% of hospitals with more than 201 beds and less than 500 were at least 25% less efficient than the standard for treating similar patients.

## **8.4 Challenges for SNS governance: what do stakeholders think?**

During the period between 2005 and 2009, initiatives to formally collect SNS stakeholders' opinions on the main challenges faced by the SNS have multiplied. One of these exercises deserves special attention because it gathers the opinion of three groups of stakeholders (patients, professionals and policy-makers and managers) in three different Delphi analyses, carried out between 2005 and 2009 (SIS Foundation 2006, 2008, 2009). Stakeholders were required to express a forecast for the coming decades with regard to different topics: governance and funding schemes, public health and health care, patient-centredness, quality, future challenges, etc. Tables 8.6 and 8.7 summarize their predictions about the expected changes and changes not expected to happen.

As observed, several topics are similarly foreseen by different stakeholders. Particularly remarkable are the mentions of the current co-payment scheme, together with a general rejection of extending co-payment to other medical services, or the reference to information as the basis for improving the SNS quality, and having a reliable and sustainable system. On the other hand, it is evident that there is a feeling that the SNS itself presents some hindrances that, usually, obstruct big reforms: the statutory contractual scheme, limits on the recertification of competences, or the fragmentation of care, together with an unbalanced prevalence of hospital care.

**Table 8.6**  
Stakeholders' predictions about expected changes

| <b>Patients/citizens (2008)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Health care professionals (2007)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Policy-makers and managers (2005)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Partisan fights will hamper needed reforms</li> <li>• Current drug co-payment scheme will change to a progressive income-based scheme</li> <li>• Private health insurance market and private health care providers will expand, together with tensions to hold the current benefits basket under a universal free coverage</li> <li>• Empowerment on informed (even shared) decision-making will be assumed by patients and professionals</li> <li>• Information will be provided about how providers perform, and to help patients and citizens to choose the best options</li> </ul> | <ul style="list-style-type: none"> <li>• Devolution to regions will increase inequities</li> <li>• Private health care insurance tenure will decrease because of the economic recession</li> <li>• The use of professional upgrading procedures and the continuous evaluation of competences will be the basis for holding and increasing the confidence of patients and citizens</li> <li>• Co-payment on drug and therapeutic innovation will be implemented</li> <li>• Information on unwarranted variations in utilization, outcomes and costs will be published to inform quality and safety policies</li> <li>• Empowerment of citizens and patients, and informed (even shared) decision-making will prevail</li> <li>• Information on providers' performance will be provided to patients and citizens</li> <li>• Patients will participate in the design of patient-oriented quality indicators</li> </ul> | <ul style="list-style-type: none"> <li>• Health care expenditure is expected to increase</li> <li>• Specific taxes and regional ability on fiscal regulation will be implemented</li> <li>• Current drug co-payment scheme will change to a progressive income-based scheme with exemptions</li> <li>• Statutory contractual relationship will prevail</li> <li>• IT development will be the basis for having an accountable SNS</li> <li>• Managers will have a more professional profile</li> <li>• Professionals will be paid using pay-for-performance schemes</li> <li>• R&amp;D funds will increase</li> <li>• Emphasis will be put more on hospital specialization, reducing the influence of primary care as the centre of the SNS</li> <li>• Information to patients/citizens will be the basis for the system's sustainability</li> <li>• Information will be provided to help patients and citizens choose health care provider and insurance plans</li> </ul> |

**Table 8.7**  
Stakeholders' predictions about changes not expected to happen

| <b>Patients/citizens</b>                                                                                                                                                                                          | <b>Health care professionals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Policy-makers and managers</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Continuous recertification of competences and professional improvement on communication skills</li> <li>• Direct representation in the system decision bodies</li> </ul> | <ul style="list-style-type: none"> <li>• Policies devoted to promoting private health insurance tenure (fiscal deductions or publicly insured services privately provided, etc.)</li> <li>• "Health in All Policies" as a more effective policy for community health improvement</li> <li>• Co-payment on diagnostic tests or medical visits</li> <li>• In primary care, a more integrated system, with case-managers</li> <li>• In primary care, allowing patients to choose a physician or centre</li> <li>• In specialized care, reduction of ineffective utilization of procedures or technologies</li> </ul> | <ul style="list-style-type: none"> <li>• Health care resources re-allocation to other health-related sectors (education, environment, social services, etc.)</li> <li>• Co-payment in health care services</li> <li>• Use of professional upgrading procedures and continuous evaluation of competences</li> <li>• Neither reductions in the current benefits basket; nor unilateral (regional) decisions about the minimum benefits basket to be insured</li> <li>• Patients' and citizens' representation in decision-making bodies</li> </ul> |

## 9. Conclusions

The previous chapters have elaborated in detail on the available quantitative and qualitative evidence regarding the performance of the SNS. The overall conclusion is that, over the years, the SNS has shown a remarkable ability to yield sustained good results measured in different dimensions of performance:

- population health status parameters and health care amenable outcomes
- coverage, access and financial equity parameters
- health care quality and safety
- users' satisfaction and system legitimated by the population.

These achievements have been attained with a relatively low level of expenditure compared to the share of GDP deployed in other European countries. The current figure for Spain, at 8.5%, is below the average; the conclusion would then be that, overall, Spaniards are obtaining quite good *value for money*.

Political factors should also be included in the equation in order to assess the merits of such an account adequately. From its inception in the late 1970s, the SNS was intended not only as a key component of the welfare state that was to be developed, but also as a reflection of the new political values; redistribution, equity and devolution to the brand new regional governments (ACs) featured as guiding principles of the new deal. The point of departure was quite a modest overall status in population health, a significant degree of inequity both in health care and health distribution, and a centrally managed hospital-centred public health care network funded from social security contributions for medium- and low-income workers, and OOP payments for the upper-income brackets. The SNS was intended to be universal, tax-funded, primary care-led and totally devolved to the 17 ACs – quite a turn-up of the former *status quo*,

which has been accomplished in about 20 years. Actually, in an international context inclined to implement decentralization, Spain has become an interesting case study for devolution policies and system governance due to the ingenuity and complexity of its formula.

Despite this positive achievement, the SNS is still striving to overcome some of the challenges rooted in its own goals.

- Fostering cohesion once devolution has been fully achieved:
  - governing a national health system composed of 17 independent regional health systems that hold primary jurisdiction on health and health care planning and organization within their territory;
  - assuring horizontal equity in services and health among Spaniards – whatever their place of residence – and vertical equity in narrowing revenue-amenable differences in services provision across the country;
  - developing further instruments for benchmarking and mutual learning across the SNS.
- Shifting to a user-centred model in a predominantly public provision structure, staffed mainly by civil servants and statutory personnel.
- Achieving coordination of care in a dominant two-headed managerial structure, culturally and functionally split between primary and specialized care levels.

Other challenges that are commonplace across Western developed countries find their correlate in the reality of the SNS:

- transition from an acute-care-driven model to the management of chronic diseases, including mental disorders;
- on the same note, incorporating social care and attention to dependency as an element of equal standing in assuring timely and good-quality medium- and long-term care, privileging community-based solutions;
- organization and provision of palliative and end-of-life care;
- adoption of the evidence-based evaluative rationale in managing the benefits basket and implementing incremental cost-effectiveness logic in assessing new benefits;
- enhancing the clinical management framework in order to overcome the gap between clinical evidence and clinical practice;



- alignment of providers' incentives with the system's quality and efficiency objectives throughout the system (different levels of management, health professionals, non-health professionals, external providers, etc.);
- enhancing evidence-based policies on equity and quality of health care by increasing the production and use of evidence on unwarranted variations in medical practice and outcomes;
- public accountability regarding the policies implemented and the value for money derived from them;
- public accountability of providers to make possible informed choice for patients;
- financial sustainability, brought to the forefront by the current economic downturn.

Devolution is a fact since 2002; the AC financing scheme promotes regional autonomy both in expenditure and in revenue-raising (especially after the revision in 2009). Several years of experience with the new political framework have brought about a fruitful (though not always smooth) debate among a broad base of stakeholders; initial delusions of fragmentation and state disarticulation have given way to a more pragmatic approach, with the force of facts convincing stakeholders that strengthening a space of cohesion and coordination is a win-win game. Based on a solid will to preserve the SNS goals and achievements, there is general agreement on the need to strengthen and enhance governance tools with a view to assure the sustainability of the SNS while increasing quality and patient-centredness, value for money and equity.

Many of the steps already taken are a solid proof of the path chosen towards improvement: building on the foundational Health Care General Act, the SNS Cohesion and Quality Act laid out the road map. The CISNS, comprising the national and regional health ministries, was upgraded to the highest SNS authority, enhancing a brand new consensus-based policy-making process grounded in knowledge management; its effects are beginning to be evident now. It led the way to the SNS common benefits basket and the SNS human resources policy framework, laying the cornerstones for coordination and enactment of the SNS Quality Plan. The Plan includes the work in progress to implement the national health information system, a single-patient ID containing relevant clinical information, or the development of a single eCR to be used across the country, thus creating the basis for the SNS functional single insurer and guaranteeing continuity of care to patients outside their

AC of residence. It has also become one of the main drivers for the design, implementation and monitoring of quality standards across the SNS, developing national health strategies to tackle both the most prevalent chronic diseases (cancer, cardiovascular diseases, diabetes, etc.) and rare diseases, as well as the National Strategy on Patient Safety.

### The road ahead

This political framework has its most recent example in the CISNS meeting on 18 March 2010, in which the main decision body of the SNS renewed the commitment to a common strategy for assuring the quality, equity, cohesion and sustainability of the SNS. The document signed by the national and regional ministries anticipates the impact of the economic downturn on fiscal revenue and its consequences for the SNS; thus it includes a suite of measures serving two stated goals: to keep up the pace in enhancing cohesion and quality across the system and fostering cost-containing measures along the lines of rational utilization policies targeted at both professionals and users, and enhanced economies of scale pooling resources at SNS level. The agreement puts forward several short-term strategies for immediate action and announces key long-term priorities in the CISNS agenda to be launched in the course of 2010.

Among the short-term measures aimed at enhancing cohesion and quality are: the regulation of maximum waiting times, establishing SNS-wide criteria for implementation in each AC; the completion of implementation of the single SNS e-health record and extensive use of e-health resources to facilitate people's interaction with health care services; adoption of a single SNS vaccination calendar. On the cost-containment side, the agreed short-term measures focus on pharmaceutical policy; the second Pharmaceutical Policy Strategic Plan is launched, including modification of the current reference prices system, reduction of generic drugs prices and fixing maximum prices for medication indicated for minor symptoms. The savings derived are estimated around €1500 million. While price regulation is an exclusive competence of the central administration, regional administrations (and even individual hospitals) play a role in their capacity as drugs purchasers for supplying their respective health care system (leaving outpatient prescription aside). The agreement announces the immediate creation of an aggregated purchasing procedure for the whole SNS (joining is voluntary), aimed at improving bargaining power over suppliers by sharing price information; this procedure will apply to all medical products, including pharmaceuticals. It also emphasizes the need for strict application of incremental cost-effectiveness assessment in adding any new technology

(including drugs) to the benefits basket, and implementation of pharmacotherapy clinical guidelines focused on cost–effectiveness parameters. The introduction of *shadow billing* into SNS services in order to increase patients’ awareness of the costs incurred is contemplated as part of the campaign to foster better use of services. In addition, workforce costs are tackled by unifying remuneration criteria across the SNS.

The CISNS has shifted to the top of its agenda several long-term initiatives for debate and assessment before the end of 2010 and to be launched in the period 2010–2013 as follows.

- Reform of the Health Cohesion Fund and analysis of the need to introduce a minimum earmarked fund for health care in the general financing scheme for ACs. The stated aim is to better support SNS cohesion policies.
- Revise and improve existing reimbursement mechanisms to health systems for care provided for labour and traffic accidents (insured by private dedicated companies or mutuals), as well as for costs derived from the care provided to EU citizens.
- Increase the number of national health strategies under the SNS Quality Plan; notably, priority is given to the National Strategy on Chronic Patients Care.
- With respect to human resources, the policy priorities include a common framework to increase professionals’ involvement in management and resources allocation in regional health services, and development of a common SNS workforce planning system dealing with future needs for certain professional profiles by applying SNS-wide distribution and need criteria. This should be based on completing the implementation of the National Registry of Health Professionals. Another aspect tackled is the implementation of the new health specialties map, grounded on a common core training with flexible itineraries of specialization.
- Implementation of the national health outcomes information system.
- Public health focus promoting healthy lifestyles, persevering in the sustained programmes on obesity, nutrition, exercise and tobacco consumption.
- Reinforcing the role of HTA in relation to the adoption of new technologies in the benefits basket through the reorganization of the HTA agencies network with a view to enhancing its capacity to deliver timely evidence on cost–effectiveness.

The agenda laid out for the SNS seems to address many of the challenges outlined above; its implementation will certainly test the political maturity of the system, and that of the coordination and cohesion tools developed. The eventual results of its implementation will deserve close attention, setting the evaluative agenda for the next few years.

## 10. Appendices

### 10.1 References

- Aranaz-Andrés JM et al. (2008). Incidence of adverse events related to health care in Spain: results of the Spanish national study of adverse events. *Journal of Epidemiology & Community Health*, 62(12):1022–1029.
- Atlas VPM (2009). *Atlas de Variación en la Práctica Médica en el SNS [Atlas of Variation in Medical Practice in the SNS]*. Grupo de investigación Atlas VPM, Instituto Aragonés de Ciencias de la Salud (<http://www.atlasvpm.org>, accessed September 2009).
- Barber Pérez P, González López-Valcarcel B (2009). *Oferta y necesidad de especialistas médicos en España (2008–2025) [Supply and demand of medical specialists in Spain (2008–2025)]*. Madrid, Ministry of Health and Social Policy.
- Blanco A (2008). *Gasto sanitario público territorializado en España y sus fuentes de financiación [Territorialized public health expenditure in Spain and its sources of financing]*. Madrid, Institute of Fiscal Studies (Working Paper 2).
- Breast Cancer Screening Programmes (2007). *Resultados de los programas de cáncer de mama en España. Resultados Comunidades Autónomas 2007 [Breast cancer screening programmes' results. Results Autonomous Communities 2007]*. Breast Cancer Screening Programmes (<http://ppc.cesga.es/>, accessed September 2010).
- Cantarero D, Lago-Peñas S (2008). *Decomposing the determinants of health care expenditure: the case of Spain*. Madrid, Institute of Fiscal Studies (IEF Working Paper 10/09).
- CGCOF (2007). *Memoria 2007 [Report 2007]*. Madrid, Consejo General de Colegios Oficiales de Farmacéuticos.
- CISNS (2009) *Memoria de actividades 2008 [Annual report 2008]*. Madrid, Inter-territorial Council of the National Health System (<http://www.sensefums.com/organizacion/consejoInterterri/docs/actividadCisns08.pdf>, accessed 8 July 2010).
- Comunidad de Madrid (2009). Ley 6/2009, de 16 de noviembre, de libertad de elección en la sanidad de la Comunidad de Madrid [Law 6/2009 16 November, on freedom to choose in health care in the Autonomous Community of Madrid]. *Boletín Oficial de la Comunidad de Madrid* 274 ([http://www.madrid.org/cs/Satellite?c=CM\\_Orden\\_BOCM&cid=1142571862731&idBoletin=1142571762516&idSeccion=1142571862429&language=es&pagename=Boletin%2FComunes%2FPresentacion%2FBOCM\\_popUpOrden](http://www.madrid.org/cs/Satellite?c=CM_Orden_BOCM&cid=1142571862731&idBoletin=1142571762516&idSeccion=1142571862429&language=es&pagename=Boletin%2FComunes%2FPresentacion%2FBOCM_popUpOrden), accessed 15 September 2010).
- Comunidad de Madrid (2010). *La ley de libre elección de médico y hospital se aprobará el próximo mes de abril [The law of freedom to choose a doctor or hospital will be approved next April]*. Madrid, Comunidad de Madrid ([http://www.madrid.org/cs/Satellite?c=CM\\_Actualidad\\_FA&cid=1142584840581&language=es&pagename=ComunidadMadrid%2FEstructura](http://www.madrid.org/cs/Satellite?c=CM_Actualidad_FA&cid=1142584840581&language=es&pagename=ComunidadMadrid%2FEstructura), accessed 15 September 2010).

- Costa-Font J, Puig-Junoy J (2007). Institutional change, innovation and regulation failure: evidence from the Spanish drug market. *Policy & Politics*, 4:701–718.
- CSIC (2008). *Barómetro sanitario [Health barometer]*. Madrid, Ministry of Health and Social Policy (<http://www.msps.es>, accessed September 2008).
- Drösler S, Romano P, Wei L (2009). *Health Care Quality Indicators Project: patient safety indicators report*. Paris, Organisation for Economic Co-operation and Development (OECD Health Working Papers No. 47).
- Durán A, Lara JL, van Waveren M (2006). Spain: Health system review. *Health Systems in Transition*, 8(4):1–208.
- EFPIA (2009). *The pharmaceutical industry in figures: key data, 2009 update*. Brussels, European Federation of Pharmaceutical Industry and Associations (<http://www.efpia.eu/content/default.asp?PageID=559&DocID=4883>, accessed 30 July).
- EMCDDA (2008). *The state of the drugs problem in Europe. Annual report*. Lisbon, European Monitoring Centre for Drugs and Drug Addiction.
- EMCDDA (2010). *Statistical Bulletin 2009*. Lisbon, European Monitoring Centre for Drugs and Drug Addiction.
- ENSE (1987). *National Health Survey of Spain 1987*. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/en/estadEstudios/estadisticas/encuestaNacional/aniosAnteriores.htm>, accessed 9 September 2010).
- ENSE (2003). *National Health Survey of Spain 2003*. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/estadEstudios/estadisticas/encuestaNacional/encuestaNac2003/home.htm>, accessed 9 September 2010).
- ENSE (2006). *National Health Survey of Spain 2006*. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/en/estadEstudios/estadisticas/encuestaNacional/encuesta2006.htm>, accessed 9 September 2010).
- ESCRI (2007). *Estadística de establecimientos sanitarios con régimen de internado [In-patient healthcare establishments statistics]*. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/en/estadEstudios/estadisticas/estHospInternado/inforAnual/homeESCRI.htm>, accessed September 2009).
- ESCRI (2008). *Estadística de establecimientos sanitarios con régimen de internado [In-patient healthcare establishments statistics]*. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/en/estadEstudios/estadisticas/estHospInternado/inforAnual/homeESCRI.htm>, accessed September 2009).
- European Parliament's Committee on the Environment, Public Health and Food Safety (2008). *Palliative care in the European Union*. Brussels, European Parliament ([http://www.actasanitaria.com/fileset/doc\\_46109\\_FICHERO\\_NOTICIA\\_3532.pdf](http://www.actasanitaria.com/fileset/doc_46109_FICHERO_NOTICIA_3532.pdf), accessed 30 July 2010).
- Eurostat (2009a). *Collection: data in focus Eurostat 2009*. Luxembourg, European Commission ([http://epp.eurostat.ec.europa.eu/portal/page/portal/population/publications/demography\\_sub](http://epp.eurostat.ec.europa.eu/portal/page/portal/population/publications/demography_sub), accessed September 2009).
- Eurostat (2009b). Health. In: *Europe in figures: Eurostat yearbook 2009*. Luxembourg, European Commission:205–232.
- Eurostat (2009c). Most popular database tables: real GDP growth rate [online database]. Luxembourg, European Commission (<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>, accessed September 2009).

- Eurostat (2009d). Structural indicators on health [online database]. Luxembourg, European Commission ([http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth\\_hlye&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_hlye&lang=en), accessed September 2009).
- Eurostat (2009e). DS-071348-table. In: Structural indicators on health [online database]. Luxembourg, European Commission (accessed September 2009).
- Farmaindustria (2005). *Memoria anual [Annual report]*. Madrid, Farmaindustria ([http://www.farmaindustria.es/idc/groups/public/documents/publicaciones/farma\\_002822.pdf](http://www.farmaindustria.es/idc/groups/public/documents/publicaciones/farma_002822.pdf), accessed 13 September 2010).
- Farmaindustria (2008). *Memoria anual [Annual report]*. Madrid, Farmaindustria.
- Fetter RB (1991). Diagnosis related groups: understanding hospital performance. *Interfaces*, 21(1):6–26.
- FIS (2008). *Activity report*. Madrid, Ministry of Science and Innovation.
- Gallup Organization (2007). Cross-border health services in the EU. *Flash Eurobarometer*, 210.
- García J, Espino A, Lara L, eds. (1998). *La psiquiatría en la España de fin de siglo. Un estudio sobre la reforma psiquiátrica y las nuevas formas de atención en salud mental [Psychiatry in Spain at the end of the century. A study of the psychiatry reform and new forms of mental health care]*. Madrid, Díaz de Santos.
- García P, López A (2007). Public and private health insurance and the utilisation of health care in Spain. *Research on Economic Inequality*, 15:169–195.
- General Directorate of Insurance and Pension Funds (2006). *Memoria estadística anual de entidades aseguradoras 2006 [Annual statistics report on insurance entities 2006]*. Madrid, Ministry of Economy and Treasury ([http://www.dgsfp.meh.es/sector/Memoria2006ABEA/SH%2002.6%20Desglose%20del%20negocio%20\(Pólizas\).pdf](http://www.dgsfp.meh.es/sector/Memoria2006ABEA/SH%2002.6%20Desglose%20del%20negocio%20(Pólizas).pdf), accessed February 2010).
- General Directorate of SNS Cohesion, High Inspection and Professionals Regulation (2009). *Programa 3110: Cohesión y calidad del Sistema Nacional de Salud*. Madrid, General Directorate of SNS Cohesion, High Inspection and Professionals Regulation ([http://www.sggp.pap.meh.es/Presup/PGE2010Proyecto/MaestroDocumentos/PGE-ROM/doc/1/3/23/3/2/5/N\\_10\\_A\\_R\\_31\\_126\\_1\\_2\\_3\\_13110\\_C\\_1.PDF](http://www.sggp.pap.meh.es/Presup/PGE2010Proyecto/MaestroDocumentos/PGE-ROM/doc/1/3/23/3/2/5/N_10_A_R_31_126_1_2_3_13110_C_1.PDF), accessed October 2009).
- General Directorate of Traffic (2009). *Seguridad vial: estadísticas e indicadores [Road security: statistics and indicators]*. Madrid, Ministry of Home Affairs ([http://dgt.es/portal/es/seguridad\\_vial/estadistica/](http://dgt.es/portal/es/seguridad_vial/estadistica/), accessed October 2009).
- Generalitat de Catalunya, Departament de Salut (2007). *Anteproyecto del mapa sanitario. Sociosanitario y de salud pública – versión resumida [First draft of the health care, social care and public health map]*. Barcelona, Generalitat de Catalunya, Departament de Salut (<http://www.gencat.cat/salut/depsalut/html/es/dir2318/mapasanitariesp.pdf>, accessed 14 September 2010).
- Gómez Beneyto M et al. (2010). *Evaluación de la Estrategia en Salud Mental [SNS Mental Health Strategy assessment report]*. Madrid, Ministry of Health and Social Policy (<http://www.feafes.com/FEAFES/DocumentosElectronicos/Capitulo10243/Evaluación+estrategia+salud+mental.htm>, accessed February 2010).
- Health Expenditure Analysis Taskforce (2007). *Informe sobre el gasto sanitario 2007 [Health expenditure analysis report 2007]*. Madrid, Institute of Fiscal Studies, Ministry of Economy and Treasury (<http://www.msps.es/en/estadEstudios/estadisticas/sisInfSanSNS/finGastoSanit.htm>, accessed September 2009).

- Herrero A et al. (2007). La reforma de la financiación autonómica: reflexiones y escenarios [Reform of the financing of the Autonomous Communities: reflections and scenarios]. *Revista de Economía*, 837(July–August):83–98.
- Hidalgo MJ, Matas V (2004). *Estudio comparativo del salario del médico en España [Comparative study of physicians' salaries in Spain]*. Granada, Sindicato Médico de Granada.
- INE (2006). *National health survey 2006*. Madrid, National Institute of Statistics (<http://www.msc.es/estadEstudios/estadisticas/encuestaNacional/encuestaNac2006/UtilizacionServiciosSanitariosPorcentajes.xls>, accessed November 2009).
- INE (2008). *Encuesta de discapacidad, autonomía personal y situaciones de dependencia (EDAD) [Disability and Dependency Survey (DDS)]*. Madrid, National Institute of Statistics ([http://www.ine.es/en/inebmenu/mnu\\_salud\\_en.htm](http://www.ine.es/en/inebmenu/mnu_salud_en.htm), accessed September 2009).
- INE (2009a) [online database]. Madrid, National Institute of Statistics (<http://www.ine.es/>, accessed September 2009).
- INE (2009b). *Deaths by cause*. Madrid, National Institute of Statistics ([http://www.ine.es/en/inebmenu/mnu\\_salud\\_en.htm](http://www.ine.es/en/inebmenu/mnu_salud_en.htm), accessed September 2009).
- INE (2009c). *Encuesta de condiciones de vida (ECV) [Life conditions survey]*. Madrid, National Institute of Statistics (<http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft25%2Fp453&file=inebase&L=0>, accessed September 2009).
- INE (2009d). *Encuesta de discapacidad, autonomía personal y situaciones de dependencia (EDAD) [Disability and Dependency Survey (DDS)]*. Madrid, National Institute of Statistics.
- INE (2009e). *Encuesta de población activa [Economically active population survey]*. Madrid, National Institute of Statistics ([http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft22%2Fe308\\_mnu&file=inebase&L=1](http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft22%2Fe308_mnu&file=inebase&L=1), accessed September 2009).
- INE (2009f). *España en cifras 2009 [Spain in figures 2009]*. Madrid, National Institute of Statistics (<http://www.ine.es/prodyser/pubweb/esp cif/esp cif09.pdf>, accessed September 2009).
- INE (2009g). *Indicadores sociales 2006 [Social indicators 2006]*. Madrid, National Institute of Statistics (<http://www.ine.es/daco/daco42/sociales06/salud-naci.xls>, accessed September 2009).
- INE (2009h). *Indicadores sociales: educación [Social indicators: education]*. Madrid, National Institute of Statistics ([http://www.ine.es/en/daco/daco42/sociales09/educa-naci\\_en.xls](http://www.ine.es/en/daco/daco42/sociales09/educa-naci_en.xls); and [http://www.ine.es/en/daco/daco42/sociales09/educa-prov\\_en.xls](http://www.ine.es/en/daco/daco42/sociales09/educa-prov_en.xls), accessed September 2009).
- INE (2009i). *Labour market: EAPS-2005 – economically active population survey*. Madrid, National Institute of Statistics ([http://www.ine.es/jaxi/menu.do?L=1&type=pcaxis&path=%2Ft22%2Fe308\\_mnu&file=inebase&N=](http://www.ine.es/jaxi/menu.do?L=1&type=pcaxis&path=%2Ft22%2Fe308_mnu&file=inebase&N=), accessed September 2009).
- INE (2009j). *Municipal register: official population figures since 1996*. Madrid, National Institute of Statistics ([http://www.ine.es/en/welcome\\_en.htm](http://www.ine.es/en/welcome_en.htm), accessed September 2009).
- INE (2009k). *Population figures and demographic census*. Madrid, National Institute of Statistics ([http://www.ine.es/en/inebmenu/mnu\\_cifraspob\\_en.htm](http://www.ine.es/en/inebmenu/mnu_cifraspob_en.htm), accessed September 2009).
- INE (2009l). *Producto interior bruto [Gross domestic product]*. Madrid, National Institute of Statistics ([http://www.ine.es/prensa/pib\\_tabla\\_cne.htm](http://www.ine.es/prensa/pib_tabla_cne.htm), accessed September 2009).



- INE (2009m). *Sociedad/mercado laboral [Society and labour market]*. Madrid, National Institute of Statistics ([http://www.ine.es/inebmenu/mnu\\_mercalab.htm](http://www.ine.es/inebmenu/mnu_mercalab.htm), accessed September 2009).
- INE (2009n). *Sección de prensa. Estadísticos económicos. PIB anual [Press section. Economics statistics. Annual GDP]*. Madrid, National Institute of Statistics ([http://www.ine.es/prensa/pib\\_tabla\\_cne.htm](http://www.ine.es/prensa/pib_tabla_cne.htm), accessed September 2009).
- INE (2009o). *Standard, quality and life conditions. Household budget survey. Base 2006*. Madrid, National Institute of Statistics (<http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t25/p458&file=inebase&L=1>, accessed September 2009).
- INE (2010). *Encuesta sobre equipamiento y uso de tecnologías de la información y comunicación en los hogares 2009 [Survey of equipment and use of ICT at home]*. Madrid, National Institute of Statistics (<http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft25%2Fp450&file=inebase&L=>, accessed September 2010).
- Institute of Health Carlos III (2009). *Mortalidad por grupos de edad [Mortality by age group]*. Madrid, Institute of Health Carlos III (<http://193.146.50.130/raziel/grafs/FEdadl.php>, accessed September 2009).
- Inter-Ministerial Commission on Science and Technology (2007). *Estrategia nacional de ciencia (ENCYT) [National strategy of science]*. Madrid, Spanish Foundation for Science and Technology (<http://www.micinn.es/stfls/MICINN/investigacion/FICHEROS/Encyt.pdf>, accessed October 2009).
- ISFAS (2008). *Annual report 2008*. Madrid, Ministry of Defence ([http://www.mde.es/isfas/vl/es/ISFAS/memoria\\_2008.pdf](http://www.mde.es/isfas/vl/es/ISFAS/memoria_2008.pdf), accessed 31 July 2010).
- Joumard I et al. (2008). *Health status determinants: lifestyle, environment, health care resources and efficiency*. Paris, Organisation for Economic Co-operation and Development (OECD Economics Department Working Papers No. 627).
- Kelley E, Hurst J (2006). *Health care quality indicators project: conceptual framework paper*. Paris, Organisation for Economic Co-operation and Development (OECD Health Working Papers No. 23).
- Lara L (2005). Private discussion on García et al. (1998), issues regarding Spanish psychiatric reform. In: Durán A, Lara JL, van Waveren M. Spain: Health system review. *Health Systems in Transition*, 8(4):1–208.
- Luque Fernández MA et al. (2009). Increase in maternal mortality associated with change in the reproductive pattern in Spain: 1996–2005. *Journal of Epidemiology & Community Health*, 63:433–438.
- Martín Martín JJ (2003). *Nuevas fórmulas de gestión en las organizaciones sanitarias. [New formulation in the management of health care organizations]*. Madrid, Fundación Alternativas (Working Paper 14/2003; <http://www.falternativas.org/laboratorio/documentos-de-trabajo/documentos-de-trabajo/nuevas-formulas-de-gestion-en-las-organizaciones-sanitarias>, accessed 30 July 2010).
- Meneu R (2008). *La distribución y dispensación de medicamentos en España [The distribution and dispensing of medicines in Spain]*. Madrid, Fundación Alternativas (Working Paper 130/2008; <http://www.falternativas.org/laboratorio/documentos-de-trabajo/documentos-de-trabajo/la-distribucion-y-dispensacion-de-medicamentos-en-espana>, accessed 30 July 2010).

- Ministry of Industry, Tourism and Commerce (2009). *Ministerio de Industria, Turismo y Comercio y el Ministerio de Sanidad y Política Social dan un nuevo impulso al programa 'Sanidad en Línea'* [Ministry of Industry, Tourism and Commerce and Ministry of Health and Social Policy give a new push to the Health Care Online programme]. Press release, 21 July 2009 (<http://www.mityc.es/es-ES/GabinetePrensa/NotasPrensa/Paginas/ConvenioSanidadenlinea210709.aspx>, accessed 15 September 2010).
- Ministry of Industry, Tourism and Commerce (2010). *Estrategia 2011–2015. Plan Avanza2* [Strategy 2011–2015. Plan Avanza2]. Madrid, Secretary of State for Telecommunications and the Information Society ([http://www.planavanza.es/InformacionGeneral/Estrategia2011/Documents/Estrategia\\_2011-2015\\_PA2.pdf](http://www.planavanza.es/InformacionGeneral/Estrategia2011/Documents/Estrategia_2011-2015_PA2.pdf), accessed September 2010).
- MSPS (2002). *Ganar salud con la juventud, 2002* [Gaining health with youth, 2002]. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/ciudadanos/proteccionSalud/adolescencia/ganarSalud/home.htm>, accessed October 2009).
- MSPS (2003). *Encuesta sobre la salud y los hábitos sexuales* [Sexual Health and Habits Survey]. Madrid, Ministry of Health and Social Policy ([http://www.ine.es/en/inebmenu/mnu\\_salud\\_en.htm](http://www.ine.es/en/inebmenu/mnu_salud_en.htm), accessed September 2009).
- MSPS (2007). *Estrategia en cuidados paliativos del Sistema Nacional de Salud* [Strategy for palliative care in the SNS]. Madrid, Ministry of Health and Social Policy.
- MSPS (2008a). *Barómetro sanitario 2008* [Health barometer 2008]. Madrid, National Health Information Institute (<http://www.msps.es/estadEstudios/estadisticas/docs/LIBROBS2008.pdf>, accessed September 2010).
- MSPS (2008b). *Barómetro sanitario, 2008: Tabulación por Comunidades Autónomas* [Health barometer, 2008: results by Autonomous Communities]. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/estadEstudios/estadisticas/docs/BS2008TotalCCAA.pdf>, accessed 8 July 2010).
- MSPS (2008c). *Sistema de información de atención primaria – SIAP* [National primary health care information system – SIAP]. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/en/estadEstudios/estadisticas/estadisticas/estMinisterio/siap.htm>, accessed December 2009).
- MSPS (2009a). *Barómetro sanitario 2008: la sanidad es lo más importante para los ciudadanos* [Health barometer 2008: health is most important for citizens]. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/estadEstudios/estadisticas/docs/LIBROBS2008.pdf>, accessed 8 July 2010).
- MSPS (2009b). *Centros, servicios y unidades de referencia* [Centres, services and units of reference]. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/profesionales/CentrosDeReferencia/PatologiasCSUR.htm>, accessed October, 2009).
- MSPS (2009c). *Datos provisionales de facturación de receta médica* [Provisional billing data on medical prescriptions]. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/profesionales/farmacia/datos/enero2009.htm>, accessed October 2009).
- MSPS (2009d). *Day surgery unit guide: standards and recommendations*. Madrid, Ministry of Health and Social Policy ([http://www.msc.es/organizacion/sns/planCalidadSNS/docs/guiaCMA\\_eng.pdf](http://www.msc.es/organizacion/sns/planCalidadSNS/docs/guiaCMA_eng.pdf), accessed October 2009).
- MSPS (2009e). *Estándares de calidad de cuidados para la seguridad del paciente en los hospitales del SNS. Proyecto Séneca. Informe Técnico Diciembre 2008* [Quality of care standards for the safety of the patient in the hospitals of the SNS. Seneca project. Technical report December 2008]. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/organizacion/sns/planCalidadSNS/docs/SENECA.pdf>, accessed October 2009).

- MSPS (2009f). *Hospital care for childbirth: standards and recommendations for hospital maternity units*. Madrid, Ministry of Health and Social Policy ([http://www.msc.es/organizacion/sns/planCalidadSNS/docs/maternidad\\_en.pdf](http://www.msc.es/organizacion/sns/planCalidadSNS/docs/maternidad_en.pdf), accessed October 2009).
- MSPS (2009g). *Hospital de día: estándares y recomendaciones [Standards and recommendations for day-hospital units]*. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/organizacion/sns/planCalidadSNS/docs/UnidadHospitalDia.pdf>, accessed September 2009).
- MSPS (2009h). *NAOS strategy*. Madrid, Ministry of Health and Social Policy (<http://www.naos.aesan.msps.es/en/>, accessed September 2009).
- MSPS (2009i). *National catalogue of hospitals 2009*. Madrid, Ministry of Health and Social Policy ([http://www.msps.es/ciudadanos/prestaciones/centrosServiciosSNS/hospitales/docs/Catalogo\\_Nacional\\_de\\_Hospitales\\_2009.pdf](http://www.msps.es/ciudadanos/prestaciones/centrosServiciosSNS/hospitales/docs/Catalogo_Nacional_de_Hospitales_2009.pdf), accessed September 2009).
- MSPS (2009j). *Plan de calidad para el SNS. Excelencia clínica. Mejorar atención pacientes [Quality plan for the SNS. Clinical excellence. Improving attention to patients]*. Madrid, Ministry of Health and Social Policy ([http://www.msc.es/organizacion/sns/planCalidadSNS/ec04\\_doc.htm](http://www.msc.es/organizacion/sns/planCalidadSNS/ec04_doc.htm), accessed October 2009).
- MSPS (2009k). *Sistema de información sanitaria del SNS [Health information system of the SNS]*. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/estadEstudios/estadisticas/sisInfSanSNS/home.htm>, accessed October 2009).
- MSPS (2009l). *Recursos del SNS [Economic resources of the SNS]*. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/estadEstudios/estadisticas/docs/RecursosRed2009.xls>, accessed September 2009).
- MSPS (2009m). *Registro Nacional de SIDA [National AIDS Registry]*. Madrid, Ministry of Health and Social Policy.
- MSPS (2009n). *SAAD Information System*. Madrid, Ministry of Health and Social Policy ([http://www.imserso.es/dependencia\\_01/documentacion/estadisticas/datos\\_estadisticos\\_saad/index.htm](http://www.imserso.es/dependencia_01/documentacion/estadisticas/datos_estadisticos_saad/index.htm), accessed September 2009).
- MSPS (2009o). *Unit for highly complex patients with multiple chronic conditions: standards and recommendations*. Madrid, Ministry of Health and Social Policy ([http://www.msc.es/organizacion/sns/planCalidadSNS/docs/pluripatologicos\\_en.pdf](http://www.msc.es/organizacion/sns/planCalidadSNS/docs/pluripatologicos_en.pdf), accessed October 2009).
- MSPS (2010a). *Cuenta satélite del gasto sanitario público [Public health expenditure statistics: annual reporting]*. Madrid, Ministry of Health and Social Policy ([http://www.msc.es/estadEstudios/estadisticas/docs/EGSP2008/egsp\\_gasto\\_real.xls#tabla 11!A1](http://www.msc.es/estadEstudios/estadisticas/docs/EGSP2008/egsp_gasto_real.xls#tabla 11!A1), accessed September 2009).
- MSPS (2010b). *Interrupción voluntaria del embarazo [Voluntary interruption of pregnancy]*. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/en/profesionales/saludPublica/prevPromocion/embarazo/>, accessed 13 September 2010).
- MSPS (2010c). *National health system Spain 2010*. Madrid, National Health Information Institute (<http://www.msps.es/organizacion/sns/docs/sns2010/>, accessed September 2010).
- MSPS (2010d). *National sexual health survey 2009*. Madrid, Ministry of Health and Social Policy.
- MSPS (2010e). *Organización institucional [Institutional organization]*. Madrid, Ministry of Health and Social Policy (<http://www.msps.es/organizacion/ministerio/organizacion/home.htm>, accessed 8 July 2010).
- MSPS (2010f). *Primary healthcare centres of the NHS catalogue 2010*. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/en/ciudadanos/prestaciones/centrosServiciosSNS/hospitales/home.htm>, accessed February 2010).

- MSPS (2010g). *Servicios autonómicos de salud y consumo [Autonomous Communities' services of health and consumption]*. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/organizacion/ccaa/directorio/home.htm>, accessed September 2009).
- MSPS (2010h). *SNS annual report 2008*. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/organizacion/sns/planCalidadSNS/pdf/equidad/informeAnual2008/annualReportSNS2008ING.pdf>, accessed September 2009).
- MSPS (2010i). *Spanish health care system financial flows after the 2002 reform*. Madrid, Ministry of Health and Social Policy (<http://www.msc.es/en/organizacion/sns/docs/flujosFinancieros.pdf>, accessed March 2010).
- MSPS, INE (2006). *Encuesta Nacional de Salud 2006 [Spanish National Health Survey 2006]*. Madrid, Ministry of Health and Social Policy & National Institute of Statistics (<http://www.msps.es/estadEstudios/estadisticas/encuestaNacional/encuestaNac2006/indiceGeneral.xls>, accessed September 2009).
- MUFACE (2008). *Annual report 2008*. Madrid, Mutual Fund for State Civil Servants ([http://www.map.es/muface/muface/memorias/common/Memoria\\_2008.pdf](http://www.map.es/muface/muface/memorias/common/Memoria_2008.pdf), accessed 30 July 2010).
- MUGEJU (2008). *Annual report 2008*. Madrid, General Justice Mutual Company ([http://www.mjusticia.es/cs/Satellite?c=Documento&cid=1161678293390&pagename=Portal\\_del\\_ciudadano%2FDocumento%2FTempDocumento](http://www.mjusticia.es/cs/Satellite?c=Documento&cid=1161678293390&pagename=Portal_del_ciudadano%2FDocumento%2FTempDocumento), accessed 30 July 2010).
- National AIDS Plan Secretariat (2003). *Infección por VIH y SIDA en España. Plan multisectorial 2001–2005. Indicadores [HIV and AIDS infection in Spain. Multisectoral plan 2001–2005. Indicators]*. Madrid, Ministry of Health and Social Policy ([http://www.msps.es/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/Indicadores\\_nov2003.pdf](http://www.msps.es/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/Indicadores_nov2003.pdf), accessed September 2009).
- National Health Information Institute (2007). *Indicadores clave del Sistema Nacional de Salud [Key indicators of the SNS]*. Madrid, Agency for SNS Quality, Ministry of Health and Social Policy (<http://www.msps.es>, accessed March 2010).
- National Health Information Institute (2009a). *Mortality rate by cancer, heart ischemic disease, stroke and diabetes mellitus in Spain*. Madrid, National Health Information Institute ([http://www.msc.es/estadEstudios/estadisticas/docs/MORTALIDAD\\_POR\\_ENFERMEDADES\\_CRONICAS.pdf](http://www.msc.es/estadEstudios/estadisticas/docs/MORTALIDAD_POR_ENFERMEDADES_CRONICAS.pdf), accessed September 2010).
- National Health Information Institute (2009b). *Sistema de información sobre listas de espera en el Sistema Nacional de Salud [Information system on waiting lists in the SNS]*. Madrid, Agency for SNS Quality, Ministry of Health and Social Policy.
- OECD (2009a). *Health at a glance*. Paris, Organisation for Economic Co-operation and Development.
- OECD (2009b). OECD Health Data [online database]. Paris, Organisation for Economic Co-operation and Development ([http://www.oecd.org/document/54/0,3343,en\\_2649\\_201185\\_43220022\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/54/0,3343,en_2649_201185_43220022_1_1_1_1,00.html), accessed September 2009).
- Pascual A, Rocafort J (2009). Desarrollo de los cuidados paliativos en España: ¿cual es el siguiente paso? [Development of palliative care in Spain: what is the next step?] *Medicina Paliativa*, 16(4):195–196.
- Puig-Junoy J (2007). La financiación y la regulación del precio de los medicamentos en el Sistema Nacional de Salud: cambios y continuidad [Financing and regulation of the price of medicine in the SNS: changes and continuity]. *Gaceta Sanitaria*, 21(1):1–4.

- Red.es, MSPS (2009). *ICT in the SNS: the Health Care Online programme*. Madrid, Red.es & Ministry of Health and Social Policy ([http://www.ontsi.red.es/articulos/detail.action?id=3039&request\\_locale=en](http://www.ontsi.red.es/articulos/detail.action?id=3039&request_locale=en), accessed September 2009).
- Red.es, MSPS (2010). *ICT in the SNS: the Health Care Online programme*. Progress update January 2010. Madrid, Red.es & Ministry of Health and Social Policy.
- Repullo JR (2005). ¿Es de buena calidad nuestro sistema de financiación? [Is our financing system of good quality?] *Revista de Calidad Asistencial*, 20(7):357–358.
- Repullo JR (2007). Gasto sanitario y descentralización: ¿saldrá a cuenta haber transferido el INSALUD? [Health care expenditure and decentralization: will it be worthwhile to transfer the National Institute of Health?] *Presupuesto y Gasto Público*, 49(4):47–66.
- Repullo JR (2009). *El Área Única Sanitaria de Madrid como nuevo paso en la desregulación y fragmentación asistencial* [The unique health care area in Madrid as a new step in the deregulation and fragmentation of health care assistance]. Madrid, Institute of Health Carlos III (<http://www.slideshare.net/jrepullo/area-sanitaria-unica-madrid>, accessed 30 July 2010).
- Repullo JR, Iñesta A, eds. (2006). *Sistemas y servicios sanitarios* [Systems and health services]. Madrid, Díaz de Santos.
- Ribera B et al. (2008). Adaptación de los servicios de salud a las características específicas y de utilización de los nuevos españoles. Informe SESPAS 2008 [Adaptation of health care services to the specific characteristics of utilization: SESPAS 2008 report]. *Gaceta Sanitaria*, 22(Suppl. 1):86–95.
- Rico A, Sabés R (2000). *Health care systems in transition: Spain*. Copenhagen, European Observatory on Health Care Systems.
- SESPAS (2006). Informe SESPAS 2006: los desajustes en la salud en el mundo desarrollado [Misalignments in health in the developed world: SESPAS 2006 report]. *Gaceta Sanitaria*, 20(Suppl.1):1–221.
- SESPAS (2008). Informe SESPAS: mejorando la efectividad de las intervenciones públicas sobre la salud [Improving the effectiveness of public interventions on health: SESPAS 2008 report]. *Gaceta Sanitaria*, 22(Suppl. 1) (<http://www.sespas.es/informes.php>, accessed 30 July 2010).
- SIS Foundation (2006). *Desarrollo y sostenibilidad del Sistema Nacional de Salud descentralizado* [Development and sustainability of the decentralized SNS]. Madrid, Fundación SIS ([http://www.fundsis.org/docs/fund\\_sis\\_4.01.pdf](http://www.fundsis.org/docs/fund_sis_4.01.pdf), accessed September 2009).
- SIS Foundation (2008). *El futuro del SNS: la visión de los ciudadanos* [The future of the SNS: the citizens' perspective]. Madrid, Fundación SIS (<http://www.fundsis.org/docs/El-Futuro-del-SNS-la-vision-de-los-ciudadanos-3.pdf>, accessed September 2009).
- SIS Foundation (2009). *The future of the SNS: the health professionals' perspective*. Madrid, Fundación SIS (<http://www.fundsis.org/docs/El-Futuro-del-SNS-la-vision-de-los-profesionales-de-la-salud-6.pdf>, accessed September 2009).
- Spanish Association of Neuropsychiatry (2009). *Observatorio de salud mental de la Asociación Española de Neuropsiquiatría, AEN* [Mental Health Observatory of the Spanish Association of Neuropsychiatry, AEN]. Madrid, Spanish Association of Neuropsychiatry (<http://www.observatorio-aen.es/cuestionario-observatorio/index.php>, accessed September 2009).
- UNESPA (2008). *Memoria de actividades 2008* [Annual Report 2008]. Madrid, Spanish Union of Insurance and Reinsurance Institutions ([http://www.unespa.es/adjuntos/fichero\\_2920\\_20090525.pdf](http://www.unespa.es/adjuntos/fichero_2920_20090525.pdf), accessed September 2009).

UNICEF (2010) *At a glance: Spain*. United Nations Children's Fund ([http://www.unicef.org/infobycountry/spain\\_statistics.html](http://www.unicef.org/infobycountry/spain_statistics.html), accessed September 2009).

Vogler S, Arts D, Hahl C (2006), *Community pharmacy in Europe. Lessons from deregulation – case studies*. Vienna, ÖBIG-Austrian Health Institute.

WHO Regional Office for Europe (2009). European Health for All database (HFA-DB) [offline database]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/hfadb>, accessed September 2009).

## Databases

Economically Active Population Survey

EDAD 2008 (Disability and Dependency Survey)

ENSE 2006

ESCRI 2008

European Health for All database

Eurostat

National AIDS Registry 2009

National Institute of Statistics (INE)

OECD Health Data

SNS Information System

World Development Indicators Online

## 10.2 Useful web sites

Some of these web sites are available in English.

AUnETS <http://aunets.isciii.es>

EUnetPAs <http://www.eunetpas.eu/>

EU Patient Safety and Quality of Care Working Group  
[http://ec.europa.eu/health-eu/care\\_for\\_me/patient\\_safety/index\\_en.htm](http://ec.europa.eu/health-eu/care_for_me/patient_safety/index_en.htm)

European Patient – Smart Open Services <http://www.epsos.eu/>

General Directorate of Economic Analysis and Cohesion Funds 2009  
<http://www.msps.es/en/estadEstudios/estadisticas/sisInfSanSNS/finGastoSanit.htm>

Institute of Health Carlos III <http://193.146.50.130/raziel/grafs/fEdadl.php>

Medical Practice Variation Atlas Group <http://www.Atlasvpm.org>

Ministry of Health and Social Policy (MSPS), SNS Information System  
<http://www.msps.es/en/estadEstudios/estadisticas/sisInfSanSNS/home.htm>

Ministry of Health and Social Policy (MSPS), SNS Quality Plan  
<http://www.msps.es/organizacion/sns/planCalidadSNS/>

National Institute of Statistics (INE)  
[http://www.ine.es/en/inebmenu/mnu\\_cifraspob\\_en.htm](http://www.ine.es/en/inebmenu/mnu_cifraspob_en.htm)

National Office of Clinical Practice Guidelines (GuíaSalud)  
<http://www.guiasalud.es/home.asp>

National System of Autonomy and Assistance to Dependency (SAAD)  
Information System [http://www.imsero.es/dependencia\\_01/documentacion/estadisticas/datos\\_estadisticos\\_saad/index.htm](http://www.imsero.es/dependencia_01/documentacion/estadisticas/datos_estadisticos_saad/index.htm)

OECD Health Care Quality Indicators Project  
<http://www.oecd.org/health/hcqi>

Spanish Association of Neuropsychiatry Mental Health Observatory  
<http://www.observatorio-aen.es/cuestionario-observatorio/index.php>

Spanish Society of Palliative Care (SECPAL)  
<http://www.secpal.com/directorio/index.php>

Spanish Society of Public Health and Health Management (Sociedad Española de Salud Pública y Administración Sanitaria (SESPAS))  
<http://www.sespas.es/informes.php>

WHO Patient Safety Programme  
<http://www.who.int/patientsafety/about/en/index.html>

## 10.3 Principal legislation

### Main health care-related laws

Organic Law 8/1980, 22 September, on the financing system of the ACs (LOFCA) [Ley Orgánica 8/1980, de 22 de septiembre, de financiación de las Comunidades Autónomas].

Organic Law 9/1985, 5 July, on the legalization of abortion under certain circumstances [Ley Orgánica 9/1985, de 5 de julio, de despenalización del aborto en determinados supuestos].

General Health Care Act 14/1986, 25 April [Ley 14/1986, de 25 de abril, general de sanidad].

Law 30/1994, 24 November, on foundations and tax incentives for private participation in general interest activities [Ley 30/1994, de 24 de noviembre, de fundaciones y de incentivos fiscales a la participación privada en actividades de interés general].

Law 31/1995, 8 November, on occupational risks prevention [Ley 31/1995, de 8 de noviembre, de prevención de riesgos laborales].

Organic Law 6/1997, 14 April, on new management formulas in public administration (LOFAGE) [Ley 6/1997, de 14 de abril, de organización y funcionamiento de la administración general del estado].

Organic Law 4/2000, 11 January, on rights and freedoms of foreigners in Spain and their social integration [Ley Orgánica 4/2000, de 11 de enero, sobre derechos y libertades de los extranjeros en España y su integración social].

Law 21/2001, 27 December, on the regulation of the new financing system for common regime ACs and autonomous cities [Ley 21/2001, de 27 de diciembre, por la que se regulan las medidas fiscales y administrativas del nuevo sistema de financiación de las Comunidades Autónomas de régimen común y Ciudades con Estatuto de Autonomía].

Basic Act 41/2002, 14 November, on patient autonomy, rights and duties on information and clinical documentation [Ley 41/2002, de 14 de noviembre, básica reguladora de la autonomía del paciente y de derechos y obligaciones en materia de información y documentación clínica].

Law 16/2003, 18 May, on the cohesion and quality of the SNS [Ley 16/2003, de 28 de mayo, de cohesión y calidad del Sistema Nacional de Salud].



Law 55/2003, 16 December, on the framework statute of statutory professionals in the health services [Ley 55/2003, de 16 de diciembre, del Estatuto Marco del personal estatutario de los servicios de salud].

Law 44/2003, 21 November, on the regulation of health professions (LOPS) [Ley 44/2003, de 21 de noviembre, de ordenación de las profesiones sanitarias].

Law 17/2005, 19 July, on the regulation of the points system for driving licence and modifications of the road safety law [Ley 17/2005, de 19 de julio, por la que se regula el permiso y la licencia de conducción por puntos y se modifica el texto articulado de la ley sobre tráfico, circulación de vehículos a motor y seguridad vial].

Law 28/2005, 26 December, on the health care measures against tobacco consumption and the regulation of the sale, distribution, consumption and publicity of tobacco products [Ley 28/2005, de 26 de diciembre, de medidas sanitarias frente al tabaquismo y reguladora de la venta, el suministro, el consumo y la publicidad de los productos del tabaco].

Law 29/2006, 26 July, on the guarantees and rational use of pharmaceuticals and health products [Ley 29/2006, de 26 de julio, de garantías y uso racional de los medicamentos y productos sanitarios].

Law 39/2006, 14 December, on the regulation of the National System for Autonomy and Assistance for Situations of Dependency [Ley 39/2006, de 14 de diciembre, de Promoción de la Autonomía Personal y Atención a las personas en situación de dependencia].

Law 6/2009, 16 November, on the freedom of choice in health care in the Autonomous Community of Madrid [Ley 6/2009, de 16 de noviembre, de Libertad de Elección en la Sanidad de la Comunidad de Madrid].

Law 22/2009, 18 December, on the regulation of the financing system of the ACs of common regime and cities with Statute of Autonomy, including the modification of certain fiscal regulations [Ley 22/2009, de 18 de diciembre, por la que se regula el sistema de financiación de las Comunidades Autónomas de régimen común y Ciudades con Estatuto de Autonomía y se modifican determinadas normas tributarias].

Organic Law 3/2009, 18 December, on the modification of the Organic Law 8/1980, 22 September, on the financing system of the autonomous communities [Ley Orgánica 3/2009, de 18 de diciembre, de modificación de la Ley Orgánica 8/1980, de 22 de septiembre, de Financiación de las Comunidades Autónomas].

## Other legal documents related to the Spanish health care system

Royal Decree 556/1989, 19 May, on the regulation of minimum accessibility criteria for public buildings [Real Decreto 556/1989, de 19 de mayo, por el que se arbitran medidas mínimas sobre accesibilidad en los edificios].

EU Council Directive 89/391/EEC, 12 June, on the introduction of measures to encourage improvements in the safety and health of workers at work.

Royal Decree 1088/1989, 8 September, which extends Social Security coverage for health care to the people without sufficient economic resources [Real Decreto 1088/89, de 8 de septiembre, por el que se extiende la cobertura de la asistencia sanitaria de la Seguridad Social a las personas sin recursos económicos suficientes].

Royal Decree 63/1995, 20 January, on the common benefits basket for the SNS [Real Decreto 63/1995, de 20 de enero, sobre Ordenación de prestaciones sanitarias del Sistema Nacional de Salud].

Royal Decree 39/1997, 17 January, on the approval of prevention services regulations [Real Decreto 39/1997, de 17 de enero, por el que se aprueba el Reglamento de los Servicios de Prevención].

Royal Decree 1277/2003, 10 October, on setting the basis for accreditation and authorization of services and health care centres [Real Decreto 1277/2003, de 10 de octubre, por el que se establecen las bases generales sobre autorización de centros, servicios y establecimientos sanitarios].

Royal Decree 183/2004, 30 January, that regulates individual health care [Real Decreto 183/2004, de 30 de enero, por el que se regula la tarjeta sanitaria individual].

EU Directive 2004/27/CE, 31 March 2004, on the community code relating to medicinal products for human use.

EU Directive 2005/36/CE, 7 September, on the system of recognition of professional qualifications.

Royal Decree 1030/2006, 15 September, on the common benefits basket for the SNS and updating procedures [Real Decreto 1030/2006, de 15 de septiembre, por el que se establece la cartera de servicios comunes del Sistema Nacional de Salud y el procedimiento para su actualización].

Royal Decree 1302/2006, 10 November, on the basis of the procedures for the designation and accreditation of the reference centres, services and units in the SNS [Real Decreto 1302/2006, de 10 de noviembre, por el que se establecen las bases del procedimiento para la designación y acreditación de los centros, servicios y unidades de referencia del Sistema Nacional de Salud].

Order SCO/3867/2007, 27 December, determining the new sets of medicine and their reference prices [Orden SCO/3867/2007, de 27 de diciembre, por la que se determinan los nuevos conjuntos de medicamentos y sus precios de referencia].

Royal Decree 7/2008, 11 January, on the economic benefits of Law 39/2006, 14 December, on the promotion of personal autonomy and attention for people in a situation of dependency [Real Decreto 7/2008 sobre las prestaciones económicas de la ley 39/2006, de 14 de diciembre de promoción de la autonomía personal y atención a las personas en situación de dependencia para el ejercicio del presente año].

Royal Decree 1837/2008, 8 November, that incorporates into the Spanish legal system Directive 2005/36/CE, of the European Parliament and the Council, 7 September 2005, and Directive 2006/100/CE of the Council, 20 November 2006, regarding the recognition of professional qualifications [Real Decreto 1837/2008, de 8 de noviembre, por el que se incorporan al ordenamiento jurídico español la Directiva 2005/36/CE, del Parlamento Europeo y del Consejo, de 7 de septiembre de 2005, y la Directiva 2006/100/CE, del Consejo, de 20 de noviembre de 2006, relativas al reconocimiento de cualificaciones profesionales, así como a determinados aspectos del ejercicio de la profesión de abogado].

Royal Decree 1041/2009, 29 June, developing the basic organic structure of the MSPS and modifying the Royal Decree 438/2008, 14 April, which approves the basic organic structure of the ministry departments.

## 10.4 HiT methodology and production process

The Health Systems in Transition (HiT) profiles are produced by country experts in collaboration with the Observatory's research directors and staff. The profiles are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources, and examples needed to compile HiTs. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and

editors to adapt it to their particular national context. The most recent template is available online at: <http://www.euro.who.int/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010>.

Authors draw on multiple data sources for the compilation of HiT profiles, ranging from national statistics, national and regional policy documents, and published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. OECD Health Data contain over 1200 indicators for the 33 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health for All policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments. With its summer 2010 edition, the Health for All database started to take account of the enlarged EU of 27 Member States.

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

A typical HiT profile consists of 10 chapters.

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

- 3 Financing: provides information on the level of expenditure, who is covered, what benefits are covered, the sources of health care finance, how resources are pooled and allocated, the main areas of expenditure, and how providers are paid.
- 4 Regulation and planning: addresses the process of policy development, establishing goals and priorities; deals with questions about relationships between institutional actors, with specific emphasis on their role in regulation and what aspects are subject to regulation; and describes the process of HTA and research and development.
- 5 Physical and human resources: deals with the planning and distribution of infrastructure and capital stock; the context in which IT systems operate; and human resource input into the health system, including information on registration, training, trends and career paths.
- 6 Provision of services: concentrates on patient flows, organization and delivery of services, addressing public health, primary and secondary health care, emergency and day care, rehabilitation, pharmaceutical care, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health care for specific populations.
- 7 Principal health care reforms: reviews reforms, policies and organizational changes that have had a substantial impact on health care.
- 8 Assessment of the health system: provides an assessment based on the stated objectives of the health system, the distribution of costs and benefits across the population, efficiency of resource allocation, technical efficiency in health care production, quality of care, and contribution of health care to health improvement.
- 9 Conclusions: highlights the lessons learned from health system changes; summarizes remaining challenges and future prospects.
- 10 Appendices: includes references, useful web sites and legislation.

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

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

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

## 10.5 The review process

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

The Spain HiT was reviewed by José Ramón Repullo (Head of the Planning and Health Economics Department at the National School of Public Health Institute of Health Carlos III), Andreu Segura (Head of the Department of Public Health and Health Services Research at the Institute of Health Studies, Regional Government of Catalonia), Rosa Urbanos (Lecturer at the Department of Applied Economics, Complutense University of Madrid) and Joan Ramón Villablí (Deputy Director of the Public Health Agency at Barcelona).

## 10.6 About the authors

**Sandra García-Armesto** is an ARAI+D senior researcher at the Health Services Research and Health Policy Unit at the Institute for Health Sciences in Aragón (I+CS). Prior to joining the I+CS, she was a health economist and policy analyst at the OECD Health Division headquarters, head of the Observatory of Madrid Health System (Regional Health Ministry), professor

at the Public Health School of the Autonomous University of Madrid and health services researcher at the Institute of Health Carlos III (MSPS). She has carried out substantive work in coordinating different lines within the OECD Health Care Quality Indicators Project. She is the author of several reports and publications on OECD Health Systems Performance Assessment and has collaborated on WHO publications on international comparison of health systems. She has also contributed as an expert in several European Commission Working Parties (indicators, patient safety, health systems) and liaison commissions between OECD, WHO and the European Commission.

**María Begoña Abadía-Taira** is a junior researcher at the Health Services Research and Health Policy Unit at the Institute for Health Sciences in Aragón (I+CS). She is a medical doctor specialized in family and community medicine, preventive medicine and public health. She holds a Master's degree in Public Health and a PhD in medicine. During 2000–2001 she was in an internship in General Medicine at the University of Ulm, Germany.

**Antonio Durán** is director of the consultancy firm Técnicas de Salud. He has undertaken substantial consultancies in Albania, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Georgia and other countries. He has been and is implementing contracts with WHO, DfID, the World Bank, the International Development Bank and the European Commission. He is the author of numerous articles and books, and has contributed to several publications of the European Observatory on Health Systems and Policies.

**Cristina Hernández-Quevedo** is Technical Officer at the European Observatory on Health Systems and Policies, and Research Fellow at LSE Health. She holds a PhD in Economics and MSc in Health Economics from the University of York, United Kingdom. Research interests include inequalities in health, equity in access to health care services and socioeconomic determinants of health, and she has published articles on these topics in internationally recognized scientific journals.

**Enrique Bernal-Delgado** works as senior health services researcher in the Health Services Research and Health Policy Unit at the Institute for Health Sciences in Aragón (I+CS), leading several research projects at national and international level. Variations in medical practice and performance measurement are his main topics of interest. After achieving his Public Health and Health Economics grades, he acted as Chief Adviser in the Aragón Ministry of Health, having high responsibilities on the health care system devolution process. Currently, he is the President of the Spanish Health Economics Association.

## The Health Systems in Transition profiles

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

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

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

### How to obtain a HiT

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

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

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

The publications  
of the European  
Observatory on Health  
Systems and Policies  
are available at

[www.healthobservatory.eu](http://www.healthobservatory.eu)





## HiT country profiles published to date:

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

### Key

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

<sup>a</sup> Albanian

<sup>b</sup> Bulgarian

<sup>c</sup> French

<sup>d</sup> Georgian

<sup>e</sup> German

<sup>f</sup> Romanian

<sup>g</sup> Russian

<sup>h</sup> Spanish

<sup>i</sup> Turkish

<sup>j</sup> Estonian

<sup>k</sup> Polish

<sup>l</sup> Tajik



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

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