National Health System of Spain Annual Report 2008

REPORTS, STUDIES AND RESEARCH 2010
MINISTRY OF HEALTH, SOCIAL POLICY AND EQUALITY

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Spanish Law 16/2003, of 28 May 2003, on Cohesion and Quality in the National Health System
CHAPTER VI. On Quality
SECTION 2.a. The Spanish Healthcare System Observatory
Article 63. Spanish Healthcare System Observatory
The Spanish Healthcare System Observatory will be created, as an independent body within the Ministry of Health, Social Policy and Equality to perform ongoing analysis of the National Health System as a whole, through comparative studies on the health services of the autonomous communities in the areas of organisation, service provision, health care management and outcomes […].
[…] The Observatory will prepare an annual report on the state of the National Health System, which will be presented by the Ministry of Health, Social Policy and Equality to the Interterritorial Council of the National Health System.

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Preface

For the sixth consecutive year, the Spanish Healthcare System Observatory has prepared the Annual Report on the country's health system, as mandated by the Law on Cohesion and Quality in the National Health System (hereinafter SNS, for its Spanish acronym). The Annual Report, a synthesis of the most relevant aspects of 2008, brings together information, figures and analysis which will no doubt prove extremely valuable to administrators, scholars and citizens in general.

This year some new sections have been added to the report, such as Organisation and Management Formulas; Health Expenditure and the Health Cohesion Fund; Public Health; Clinical Information Management; and Professional Regulation. Other sections, such as the ones discussing the health status of the population, pharmaceuticals and health products, quality and equity have been revised or reformulated.

The purpose of the report is to respond to certain questions, such as who is served by the SNS and what kind of results are obtained; how the health services are organised and with what resources; what strategy is followed; what services are provided (primary care, specialised care, public health, pharmaceutical benefits) and what kind of work is being done to improve quality, equity, clinical information management, innovation and research.

The overview presented by the report is that of a national health care system serving a population whose life expectancy is 81.1 years, with an infant mortality rate of 3.5 per 1000 live births. The SNS has a network of 325 hospitals, 2914 health centres and 10,202 local health facilities. But it also uses resources from the private sector: more than 40% of the discharges from private hospitals are financed by the public system.

In the organisation of their respective regional health care systems, Spain's autonomous communities distinguish between the functions of health care planning, financing and authority, and the functions of service provision. Although most of the services are provided through direct management resources, various autonomous communities have introduced other management formulas, such as public enterprises, consortia, foundations, concessions and long-term agreements. In 2007 the total health expenditure in Spain was 8.46% of the GDP, with public sector health expenditure representing 6.07% of the GDP. Of the expenditure made by the health services, 45.4% corresponds to the remuneration of personnel and 21% to current transfers, most of which are related to the pharmaceutical service. In 2008 a total of 23,763 residents received specialised training, and of them 10% were not of Spanish nationality; 18,307 ongoing training activities were accredited and research received more than €180 million in funding.

The SNS Annual Report 2008 is the result of a joint effort by all the autonomous communities, INGESA and experts from the Ministry of Health and Social Policy. I would like to express my sincere gratitude to all of them for their excellent work, which has given us this useful instrument, so vital in the study, planning and management of health care.

Trinidad Jiménez García-Herrera
Minister of Health and Social Policy

Summary

Health status of the population

Demographic figures from 2008 reflect the continued growth of Spain's population, which is now over 46 million inhabitants, of whom 49.5% are men and 50.5% are women. This population growth can be seen in all age groups except for the 15-24 year group, as a result of the decline in the birth rate in the final years of the past century. In the younger age groups, growth is due to the increase in fertility and birth rates. Natural growth - births minus deaths - fell in the final 25 years of the past century but this trend has now been inverted, with the rate moving from 1 per 1000 inhabitants in 2001 to 2.4 in 2007. All of this has brought a slowdown in the ageing of the population since, although the number of people above the age of 65 has grown, their percentage with respect to the total population has become smaller.

The foreign population residing in Spain is 5,268,762 in 2008, which represents 11.4% of the total population.

The percentage of people with secondary or higher education has increased and is now 70.6% in men and 64.6% in women. In 2001 the figures were 45.4% and 38.9% respectively. In 2007 half of Spain's population had completed the second cycle of secondary education or higher education, while in 1991 the figure was 38%.

A basic indicator for evaluating the health status of the population is life expectancy, which in Spain continues to be on the rise and continues to be higher for women. As for healthy life expectancy, a slight increase can be seen in the national average.

Life expectancy and healthy life expectancy at birth and at age 65, by sex. General estimate based on 2007 data

	Life expectancy	Healthy life expectancy
At birth		
Men	77.8	57.2
Women	84.3	53.4
At age 65		
Men	17.8	8.6
Women	21.9	7.2

Source: National Statistics Institute and the Health Information Institute of the Ministry of Health and Social Policy

The leading causes of death were, in order from highest to lowest, vascular diseases, cancer, respiratory diseases, digestive diseases and external causes. The infant mortality rate continues to fall; in 2007 the rate was 3.5.

Percentage distribution by age of deaths from the main causes of death. Spain, 2007

Age	Circulatory system diseases	Cancer	Respiratory system diseases	Digestive system diseases	External causes
<15	0.0	0.2	0.2	0.1	1.7
15-44	1.4	3.2	1.6	3.6	33.6
45-74	20.9	47.7	17.7	34.4	32.1
> 75	77.7	48.9	80.6	61.9	32.6

Source: Health Information Institute of the Ministry of Health and Social Policy

Of particular significance is the reduction in the number of traffic accident victims (a reduction of 40% between 2001 and 2007) and of workplace accidents (the frequency index fell from 42.8 to 30.8 between 2001 and 2007). Most workplace accidents took place in the sectors of construction and industry.

In 2007, the percentage of people over the age of 16 who deemed their health to be good or very good was 72.6% in the case of men and 60.6% in the case of women. Among men, 6.9% deemed their health to be poor or very poor, while among women the figure was 10.4%.

As for unhealthy lifestyle habits, the data reveal a decline in the use of tobacco and a slight increase in alcohol consumption. Men consume the most in both cases. With regard to drug use, the use of psychoactive substances is decreasing, with the exception of cannabis and cocaine, which show a slight increase. A high proportion of the adult population leads a sedentary lifestyle, especially young people, the elderly and women, although the percentage has become smaller in recent years. Finally, the population's obesity rates are increasing. They are somewhat higher in men and tend to increase with age.

Description and institutional analysis

The legal framework of the SNS, in addition to the Spanish Constitution of 1978, is comprised of the General Health Care Act of 1986 and the Law on Cohesion and Quality in the SNS of 2003, and also the laws enacted by the

country's autonomous communities in the exercise of the powers laid down in their respective statutes of autonomy. The organisational models of the autonomous communities are quite similar and usually consist of a Regional Ministry that sets health care policy and performs administrative functions in the strict sense, and also a Regional Health Service in charge of providing the health care services, after objectives have been established in a contract-programme or management contract. Thus, in almost all of the autonomous communities a clear distinction is made between responsibility for planning services and responsibility for providing them.

Health care policies are defined mainly through the development of Health Plans, which can consist in turn of strategic plans, master plans and infrastructure plans, or other planning instruments. The policy aspects that most frequently appear in 2008 are the protection of patient rights; specific care for diseases of high prevalence, chronicity or disability burden and prevention programmes aimed at specific segments of the population; research; the application of new technologies to health care as a professional tool; and human resource management.

Although health care services are mostly publicly financed, a variety of management formulas are used by the autonomous communities, such as the following:

- Public enterprises for the management of hospitals, urgent care services, emergency response and specialised care centres with a very high resolution capacity.
- Public bodies governed by private law.
- Consortia.
- Foundations.
- Associative bodies of health professionals (EBAs) who set themselves up as legal entities to work as self-managed primary care teams.
- Health care facilities and services operated by concession, using a public service contract.
- Health care facilities and services built using a public works contract.
- Long-term contracts with public or private bodies to complement the range of services offered.
- Singular or specific contracts with public or private bodies.
- The National Institute of Health Management (INGESA), the management entity of the Social Security Institute in charge of providing services in Ceuta and Melilla.

One of the indicators frequently used to determine the dimensions of the health care system is health expenditure, which in the 2003-2007 period increased by 8.6%; public sector expenditure grew by 9.1% while private sector expenditure grew by 7.4%. Expenditure on health is becoming more

and more significant within the national GDP and it is the autonomous communities that bear the greatest burden in financing public health care, with most of the money going to hospitals. In contrast, households pay for most of private health care, where 50% of the expenditure goes to ambulatory care. In 2007 the total health expenditure represented 8.46% of the GDP, with public sector health care being 6.07% of the GDP.

The largest expenditure items are the remuneration of the health care professionals, which accounts for 45% of the total budget, and current transfers which, at 21% of the total, correspond almost in their entirety to pharmaceutical costs. Ranked third and fourth are intermediate consumption, at 17.5%, and purchases from the private sector, at 11.3%. These four expenditure items account for 94.8% of the public spending in health care.

In absolute values, the distribution of the expenditure among the autonomous communities reveals, not surprisingly, a greater concentration of expenditure in the regions with a higher population.

Resources and care activity

At the Primary Care level, resource planning and allocation is based on the delimitation of basic health zones and on the assignment of health care facilities to each one of them. There is of course a high degree of variability between health areas, since the planning and allocation of resources depends on the population and geographic dispersion of each area. The national average proportion of health centres to local health facilities is 1 to 4, but the figure varies considerably among the different autonomous communities. The same occurs with the professionals, both health and non-health professionals, whose numbers total more than 80,000. In territorial terms, the SNS is organised into 156 Areas and 2688 basic health zones, which have 2914 health centres and 10,202 local health facilities.

In Primary Care, the average number of people assigned per professional is 1410 for each family doctor, 1209 for each paediatrician, 1663 for each nurse and 3102 for each auxiliary administrative staff member. The average number of consultations per inhabitant per year (frequentation) is 5.65.

At the Specialised Care level, the SNS runs 325 of the 800 hospitals currently in operation in Spain, although it also must be pointed out that 40% of the discharges from private Spanish hospitals are in fact financed by the SNS. In public hospitals most of the care provided is for acute patients, especially in the areas of hospitalisation, obstetrics, consultations and urgent care, while in the private sector most of the care provided goes to psychiatric patients and long-term care patients.

The progressive shift towards ambulatory care for certain processes that in the past required hospitalisation has brought with it the appearance of

activity settings that do not involve overnight stay, such as day hospitals. Also, a significant investment has been made in technological equipment; magnetic imaging equipment is the type that has most increased in recent years.

In recent years there has been a trend towards the ageing of the population attended, the reduced use of hospital beds and displacement of activity towards ambulatory settings. These changes respond to demographic factors, technological advances and the expectations and customs of the population. Of all the associated factors, the only one that shows an alteration with respect to the trend observed in the previous two decades is that of natality, which, following a pronounced fall, is on the rise once again.

Public Health

Health promotion activities have consisted mostly of actions by various interterritorial working groups and the strengthening of the intersectoral approach, with health promotion programmes being put in place in schools, universities and even cities. Prevention initiatives have focused on alcohol-related problems, which have a high incidence throughout the European Union; on unintentional injuries, the leading cause of death among young people and among which traffic accident injuries are especially significant; on cardiovascular problems; and on smoking, which causes 14% of the deaths occurring in Spain.

Projects to enhance transfusion safety are also underway, such as the creation of a Scientific Committee for Transfusion Safety and a National Commission on Haemotherapy. The purpose of these and other projects is to introduce and monitor quality systems and best practices which will make it possible, for example, to prevent HIV and Hepatitis C infection. Other programmes focus on protecting the health of pregnant women, particularly in the case of elective termination of pregnancy, which increases year after year, and the health of newborn babies and young children.

In the area of border health control, the health risks posed by imports and exports and the international movement of travellers and goods are the object of close surveillance. Also, the international transport of corpses and cadaverous remains, organs for transplant, anatomical preparations used in research, biological samples and products for human use and consumption, both in and out of the country, is controlled. Public health authorities also oversee international vaccinations and the recommendations given to international travellers, with the aim of preventing the spread of diseases such as yellow fever, typhoid, diphtheria, etc., which have been practically eradicated in developed countries but are still present in other countries. There is also a Health Alert Network to respond to possible cases of illnesses such as cholera, dengue fever, avian influenza, malaria, etc. Finally, various

sanitary controls are performed at border posts and on means of international transport, mostly in international ports and airports.

With regard to Acquired Immune Deficiency Syndrome, the National AIDS Plan focuses on preventing infection and providing special care to affected citizens. One of its objectives is to safeguard the quality of life of AIDS patients, which involves taking steps to fight discrimination and provide social support. A study of the history of AIDS in Spain reveals that the number of new cases detected peaked at the end of the 1980s and then began a steady descent which continues today. The lower number of new cases is the result of prevention measures adopted by the population. In recent years two important facts have become evident: the consolidation of sexual contact as the most common means of transmission of the virus and the influence of immigrants, among whom there is a high rate of detected cases.

In the National AIDS Plan prevention activities represent the most important item in the budget, with over 75% of funds being allocated to initiatives such as free condom distribution and needle exchange programmes. The Plan also addresses such areas as care quality, research and international co-operation.

On the environmental health agenda, efforts involve the registration and authorisation of biocidal products and the evaluation of the risks that chemical and phytosanitary products may pose to the health of the population. For this purpose, Spain has a National Network for the Surveillance, Inspection and Control of Chemical Products, various information systems on water health and quality and also programmes to reduce physical environmental risks.

Pharmaceuticals and health products

Pharmaceutical benefits in Spain are regulated by the following legislation:

- The General Social Security Act.
- Law 16/2003, of 28 May 2003, on the Cohesion and Quality of the SNS.
- Law 29/2006, of 26 July 2006, on Guarantees and Rational Use of Pharmaceuticals and Health Products, which replaces Law 25/1990 on Pharmaceuticals.
- Royal Decree 1030/2006, of 15 September 2006, which establishes the common benefits package of the SNS and the procedure for its revision.

Prior to their inclusion in the public financing system, pharmaceuticals and health products must be approved by either the Spanish Agency of Medicines and Health Products or the European Agency of Medicines, as provided by current laws and regulations. The Ministry of Health and Social

Policy, through the Directorate General for Pharmaceuticals and Health Products, decides whether or not to include the pharmaceuticals in the SNS pharmaceutical service, bearing in mind the criteria established in Law 29/2006. The Interministerial Committee on Pharmaceutical Prices sets the prices for pharmaceuticals and health products that are to be included in the SNS pharmaceutical service. During 2008, a total of 1371 pharmaceuticals were approved for inclusion, of which 972 were generic medicines, with a total of 23 new active pharmaceutical ingredients being admitted. As of 31 December 2008, the number of pharmaceuticals approved and included in the public financing system totalled 18,976. Of these, 7023 were generic medicines. Six new health products were included, meaning that a total of 5205 products were offered as of the end of 2008.

Pharmaceutical consumption is analysed using the SNS medical prescriptions invoiced by the Regional Health Services. From a quantitative point of view, there has been a trend towards moderation since 2004 in the main data for SNS medical prescription invoicing, due to programmes for the rational use of pharmaceuticals put in place by the various health care administrations, the reference price system, the Ministry of Health and Social Policy's pricing policy and modifications to the commercial margins in the distribution and dispensing of pharmaceuticals. Growth in pharmaceutical expenditure in 2008 with respect to the year before was 6.97%, far below annual growth in 2003, which was 12.14%. The number of prescriptions increased by 5.53% in 2008, somewhat lower than the 2007 increase of 5.95%. Furthermore, the average expenditure per prescription grew by only 1.36% in 2008. For the SNS as a whole, expenditure amounted to approximately €11,971 million in 2008. Regarding distribution by product, pharmaceuticals accounted for 93% of the expenditure and 97% of the prescriptions.

In the qualitative analysis, the increase in the use of generic pharmaceuticals has been significant, given that between 2003 and 2008 the percentage of consumption increased almost two and a half times, from generic packs making up 8.85% of the total in 2003, to 21.81% in 2008. Regarding consumption by active pharmaceutical ingredient, omeprazole had the highest consumption in terms of number of packs for 2008, while atorvastatin had the highest consumption in terms of cost. For health products, urinary incontinence pads had the highest consumption in terms of number of packs and cost.

Finally, the Spanish Agency of Medicines and Health Products performs different actions in the arena of pharmaceutical and health product safety, in order to guarantee the quality, safety and efficacy of these items and to provide accurate information to the population. Similarly, the administration and processing of requests for clinical trials has been computerised, thus facilitating the work of the Coordinating Centre of the Ethics Committees

for Clinical Research, the competent authority for regulating clinical trials. During 2008, a total of 675 clinical trials were authorised.

Quality

The most important actions in the field of quality are set forth in the Quality Plan for the SNS 2006-2010. They include efforts to improve patient safety; the creation of tools to promote clinical excellence; and strategies for diseases of high prevalence and high social and economic cost.

The Quality Plan for the SNS covers six large action areas divided into twelve strategies, which are in turn subdivided into a series of objectives and action projects. The Plan is executed in collaboration with various types of organisations, such as scientific societies, patient associations and the Regional Health Services of the various autonomous communities.

In the area of patient safety, the strategy undertaken in 2005 has continued, with training and informative activities aimed at both professionals and the general population, the development of information systems on adverse effects and the introduction of safe practices in health care settings. Spain has participated in national and international meetings and forums, to facilitate the exchange of information and experiences.

In the promotion of clinical excellence, the following initiatives deserve special mention:

- Validation studies of quality indicators in patient safety and avoidable hospitalisation.
- Financing of research projects and health technology assessment projects at the Carlos III Health Institute.
- Financing of access in Spanish to the Cochrane Library and the Joanna Briggs Institute Library.
- The creation of the Clinical Excellence metasearcher.
- Creation of Clinical Practice Guides linked to the health strategies.

The Quality Agency of the SNS prepared five documents on quality and safety standards and recommendations, in collaboration with groups of experts and representatives of the professional associations most closely linked to each of the units of study, which were the following:

- Childbirth care in hospitals.
- Surgery wards.
- Units for multiple pathology patients.
- Major outpatient surgery.
- Day hospital.

Also, there are specific auditing plans for the accreditation of health care facilities and services, for purposes of the designation of SNS Reference Facilities, Services and Units and also to ensure fulfilment by certain health

facilities of their duty to provide specialised training in the health sciences. These plans address auditing and accreditation processes and also the training of the auditors in charge of such processes.

Finally, strategies were drawn up to improve the health care provided in the SNS for certain illnesses of high prevalence and high social and economic cost, emphasising co-ordination with the Regional Health Services and ensuring compliance with the principles of equity and cohesion. The illnesses addressed in the strategies are cancer, ischaemic heart disease, diabetes, mental health and palliative care.

Equity

To reduce social inequalities in the area of health, the following initiatives have been taken:

- A national group of experts was created to formulate proposals on how to reduce inequality.
- The Spanish Network of Healthy Cities was expanded and numerous cities have put in place health plans with equity as a transversal theme.
- National strategies to promote equity were developed, with the aim of eliminating barriers that limit access to health care services and putting an end to the ineffective use of such services for reasons of inadaptation or discrimination.

Of special importance in this final point is the equity strategy that focuses on the Roma population. The strategy is based on a national health survey conducted in this group and on agreements with Roma associations and its goal is to reinforce the efforts made to advise, accompany and build specific capacities in health professionals and administrations. Various documents and reports have been published, debate forums have been created and international co-operation has been stimulated to allow for exchange with other European countries in similar situations.

Efforts of the same type have also been made with respect to the immigrant population. This group has become increasingly significant in recent years as Spain has quickly become one of the countries with the highest rates of immigration. In this area, several strategies have been put in place to ensure that access to the public health care system and the care received takes place in conditions of equality and contributes to the integration of the immigrant population in Spanish society. In addition, studies have been conducted on the infectious diseases imported as a result of immigration or of international travel to the tropics.

These initiatives have been carried out in collaboration with or to complement the actions of the autonomous communities themselves, which

are making their own efforts to increase accessibility, provide support to people with disabilities and, of course, attend the population of immigrants or certain ethnic groups, such as the Roma community.

One of the main components of the path towards equity is the legal recognition of the equality of men and women, such as found in the laws and regulations at the European, Spanish and regional levels. Other developments in this area include a National Plan on Gender Violence Awareness and Prevention, instruments that help define and disseminate best practices and specific programmes to promote women's health, especially in relation to childbirth. Finally, equity in the exercise of the health professions has been the object of study, in the sphere of care giving, research, teaching and even management.

Clinical information management in the SNS

To ensure the continuity of care given to citizens regardless of where they are in the country, a project is underway to implement an Electronic Health Records system, by which clinical information can be shared among the Regional Health Services of the different autonomous communities, through a data centre managed by the Ministry. In 2008 various working groups have participated:

- The technical standards and requirements team has worked on the system's technological design and on the issue of compatibility with the information systems of the Regional Health Services of each autonomous community.
- The semantic interoperability advisory group has worked on recommendations to guarantee such interoperability.
- Several autonomous communities have taken part in the pilot project group, comprised of the autonomous communities that chose to participate actively in the first phase of the plan.

Consideration has also been given to information security requirements, citizen participation and integration with Electronic Health Records projects undertaken by the European Union and by the autonomous communities.

Furthermore, Spain is participating in the epSOS project, funded by the European Commission and similar to the project described above. This project focuses on two primary lines of action: developing Patient Summaries containing the most essential health information of each patient, and e-Prescription. Twelve EU Member States are participating and Spanish representation is through the Ministry of Health and Social Policy and the autonomous communities of Andalusia, Catalonia and Castilla-La Mancha in the pilot testing project.

All of the autonomous communities have continued to work on projects involving the introduction of Electronic Health Records. Aspects common to all such projects are: access to patient history, problem list, allergies and the coding of diagnoses and procedures. With regard to specific information systems, the general lines of work focus on the following: patient identification; management of laboratory requests and results; diagnostic imaging; e-prescribing systems; appointment management; clinical information systems at the hospital level; telemedicine, and other initiatives, including the Electronic Health Records projects of the SNS, information security mechanisms and access by citizens to their clinical information.

Professional regulation and health training

In a context characterised by a shortage of professionals in some specialties in the SNS, the public administrations are working towards improved governing of the various levels of organisation and regulation of professionals, the creation of registration systems, the adjustment of the number of students in undergraduate programmes and specialised training, the offering of incentives for ongoing professional development, the commissioning of consultancy projects on long- and medium-term needs planning and the regulation of the entry of professionals from outside the European Union.

Medical specialist needs in Spain 2008-2025

	2008	2015	2025
Inhabitants (million)	44.3	46.3	48.0
Specialists needed per one hundred thousand inhabitants	319	323	317
Estimate of total number of specialists	161,966	171,100	174,071
Estimate of number of specialists needed	165,205	180,169	198,962
Percentage of specialists needed	2%	5.3%	14.3%

Source: Ministry of Health and Social Policy. Report on Medical Specialist Supply and Needs in Spain (2008-2025)

The data available indicates that Spain has a highly-developed and highly-regulated specialised health training system. It has proven its capacity to provide high quality training in 54 different specialties to a large group of residents, who come from seven different university degree programmes. The system is also in expansion, in terms of both the number of accredited

positions that are offered and also in the number of applicants from all the degree programmes. The system has renewed, over the past four years, most of its training programmes and is currently working on the definition of the programmes for the new nursing specialities approved in 2005 by Royal Decree 450/2005.

Despite its achievements, the system is undergoing a profound transformation that affects the very foundations of the systemisation of specialties, the applicant selection system, the training structure (through the definition of common initial pathways for similar specialties), the strengthening and recognition of teaching structures and the evaluation system. The publication of Royal Decree 183/2008, of 8 February 2008, represents a vital step in this process of renewal, as it introduces new concepts, adapts the system to the current configuration of a state comprised of autonomous communities and also foresees the modifications that will take place in coming years.

The number of places available for specialised training in 2008 was 7866. The total number of residents in training was 23,763. Of them 2338 were not of Spanish nationality.

With the aim of co-ordinating the training activities and harmonising the actions of the different health care administrations, the Ongoing Training Commission has done the following in 2008:

- Reaffirm the validity of the accreditation system in use since February of 1998.
- Present a proposal regarding the Commission's Internal Regulations.
- Create a Technical Commission on Accreditation.
- Make a proposal regarding the distribution of responsibilities in the accreditation of ongoing training activities.
- Study the procedure used for evaluating distance training activities.
- Collaborate in the development of the Ongoing Training Commissions of the autonomous communities.
- Grant accreditation to 18,307 activities of the 20,365 applications that were received in 2008.

Research

In 2008 the National Plan for Scientific Research, Development and Innovation 2008-2011 went into effect. It has several instrumental lines of action, including the Strategic Action in Health, the intention of which is to generate knowledge with which to preserve the health and well-being of the citizenry, strengthen scientific innovation in biomedical subjects and apply the advances made in research to SNS patients. To achieve this, it aims to increase investment, both public and private, increase the quantity and

quality of human resources, scientific production and the international dimensions of R&D+innovation in health, as well as promoting the transfer of knowledge and technology in health.

The Strategic Action in Health is organised into five principal areas:

- Molecular and cellular technologies applicable to human health.
- Translational research on human health.
- Promotion of research into Public Health, Environmental and Occupational Health, Dependence and Health Services, in order to improve the functional life of the Spanish population.
- Promotion of pharmaceutical research on medicines and the development of pharmaceutical technologies. Research, Development and Innovation in pharmaceuticals for the treatment of the most relevant diseases.
- Consolidation of the SNS as a platform for scientific and technical research in conjunction with industrial and technological research settings.

The Strategic Action in Health is comprised of the following lines of action:

- Implementing programmes oriented towards training and mobility and towards hiring and incorporation.
- Enhancing project action, with three subprogrammes: research into health, non-commercial clinical research and research in the area of health technology assessment and health services.
- Promoting scientific and technological infrastructure, giving priority to the acquisition of infrastructure and equipment to be used jointly by the research teams working in SNS facilities.
- Strengthening stable co-operative research structures, through the CIBER (Networks of Biomedical Research Centres), RETICS (Thematic Networks of Co-operative Research in Health) and the CAIBER (Consortium to Promote Biomedical Research Networks).
- Funding complementary reinforcement actions: making the SNS research and technological settings more dynamic, providing training in evidence-based medicine and in health technology assessment, and performing specific actions in the area of health, sports and physical activity.

Strategic Action in Health funding has been complemented with funding from other sources, such as the regional governments, the European Union (7th Framework Programme for Research and Technological Development) and even the private sector.

In 2008 priority was given to the acquisition of infrastructure and equipment to be used jointly by the research teams of SNS facilities and stable co-operative research structures have been strengthened. To stimulate research projects within the SNS more than 900 projects have been funded,

for a total amount of over €95 million. To improve the use and performance of scientific infrastructure, more than 50 projects received funding, for a total amount of over €11 million. Funding in the amount of €33 million was allocated to projects to make the research and technological settings in the SNS more dynamic, to promote public/private cooperation in actions involving clinical praxis in research. Also noteworthy is the support and funding of the stable research structures, in the amount of over €50 million. Finally, the initial impetus given to strengthen the central units of clinical research and clinical trials through CAIBER has also been very significant.

Innovation

Innovation is one of the strategic priorities of the SNS. The innovative experiences of the autonomous communities revolve around the following lines of action:

- Health care management: benefit packages, living will registries, professional directories, accreditation and recognition of excellence, reorganisation of services and home hospital, among others.
- Application of information and communication technology (ICT): introduction of electronic health record systems.
- Care-related projects: improving quality in the way mental illness is approached in Primary Care, increasing co-ordination between Primary Care and Specialised Care in the prevention of cardiovascular disease, social health care for people with mental illness, hospital care for celiacs and attention to sexual and reproductive health.
- Training and research: medical-surgical simulation, clinical trials, support for research, technological transfer and marketing, etc.
- Equity in health care: improving geographical accessibility and general access to quality health care.

Introduction

Article 63 of the Law on Cohesion and Quality in the National Health System (hereinafter SNS, for its acronym in Spanish) provides that the Spanish Healthcare System Observatory will prepare an annual report on the state of the SNS, which will be presented by the Ministry of Health and Social Policy to the SNS Interterritorial Council.

The autonomous communities took active part in the preparation of the 2008 report, as they did in previous years. Another vital element in the preparation process this year, as in the past, was the collaboration of the editorial committee made up of experts in the different subjects. However, the SNS Annual Report 2008 has introduced some new features not present in previous years, in terms of both content and working methods.

This year the report is again divided into a general part, which analyses the SNS as a whole, and another part on the situation in each of the autonomous communities and Ceuta and Melilla, which was prepared by the autonomous communities and INGESA (the body in charge of health care in these two Spanish cities in North Africa). But this year the two sections do not have the same table of contents. The Institutional Committee of the SNS Annual Report 2008 agreed that the section about the autonomous communities should address only those aspects that most differentiate them, while the general section should bring together the aspects that are common to all of them. For this reason, the part on the autonomous communities has a table of contents consisting of only three points, preceded by an introduction:

1. Description of the health care system in each of the autonomous communities.
2. Most salient aspects, tendencies and prospects for the future.
3. Innovation.

The table of contents for the general part was also the subject of a long and fruitful discussion by both the Editorial and the Institutional Committees, which agreed on the following chapters:

1. Health Status of the Population.
2. Institutional Description and Analysis.
3. Resources and Care Activity.
4. Public Health.
5. Pharmaceuticals and Health Products.
6. Quality.
7. Equity.
8. Clinical Information Management in the SNS.
9. Professional Regulation and Training of Health Care Personnel.

10. Research.
11. Innovation.

As to the writing of the general section, this year the primary role was played by the experts from the Ministry of Health and Social Policy, who are civil servants that work in the ministerial divisions in charge of the various subject matters at hand. In general, the sources of information used are the National Statistics Institute (Instituto Nacional de Estadística), the Health Information Institute (Instituto de Información Sanitaria), the Ministry's internal sources and information furnished by the autonomous communities for the purpose of preparing this report. In some sections, such as the one on health expenditure, the data used are from 2007, because these are the most recent figures available.

The Institutional and Editorial Committees have decided that starting this year the report will have some chapters that are constant and others that are discontinuous. This decision stems from their belief that the report must be dynamic, with capacity to reflect both the most novel aspects of each year and also those aspects that, because they are less variable, need not appear every year.

Following this criteria, this year's report introduces some new sections, such as Institutional Description and Analysis, which this year looks at how the SNS is organised and at health expenditure, and also Professional Regulation and Training of Health Care Personnel, which includes the topics of specialised training, ongoing training and accreditation procedures. The 2008 Annual Report also closely examines SNS resources and care activity. In addition, a chapter has been included on Public Health, which covers epidemiology, the National AIDS Plan and environmental health, among other topics. The chapter on clinical information management describes the progress of the electronic health record project underway in the SNS and also the advances made in the European project epSOS.

The report maintains its sections on Pharmacy, now called Pharmaceuticals and Health Products, and also those on Quality, Equity, Research and Innovation, while others are merged together in the chapter Health Status of the Population.

1 Health status of the population

1.1 Demographic characteristics of Spain's population

The resident population of Spain on 1 January 2008 was 46,157,822, according to the data drawn from the municipal registers of inhabitants: 49.5% were men and 50.5% were women. With respect to 2001 the population had increased by slightly more than 5 million inhabitants, which represents a growth of 12.3%, as shown in Table 1.1.

This table also shows that during the present decade the population grew in all age groups, except in the 15 to 24 years group, where it fell by 11.5%. This reduction is a reflection of the continuous decrease in the birth rate of Spain's resident population in the final 25 years of the past century; the birth rate fell from 18.8 births per 1000 inhabitants in 1975 to 9.9 births per 1000 inhabitants in 2000. The greatest growth in the 2001-2008 period occurred in the group of children under the age of five, which saw an increase of 36%. This growth, in turn, is a reflection of the continuous growth in the birth rate during the present decade, which went from 10.0 births per 1000 inhabitants in 2001 to 11.0 births per 1000 inhabitants in 2007.

People aged 65 and over represented 16.5% of the population in 2008. This percentage is lower than the one corresponding to 2001, which was 17.1%. Although the population aged 65 and over increased by 8.5% between 2001 and 2008, the percentage of growth in the younger population was even greater, so the weight of the population aged 65 and over in society as a whole diminished.

Table 1.1. Resident population in Spain in 2001 and 2008

Age	2001	2008	Percentage increase
Total	41,116,843	46,157,822	12.3
0-4	1,719,673	2,339,646	36.1
5-14	4,130,199	4,316,243	4.5
15-24	5,869,991	5,193,642	-11.5
25-44	13,204,784	15,494,483	17.3
45-64	9,1546,43	11,180,883	22.1
65 and over	7,037,553	7,632,925	8.5

Source: National Statistics Institute. Statistical use of the Municipal Registers of Inhabitants

Natural growth –births minus deaths– experienced a significant and continuous decline throughout the last 25 years of the past century: it dropped from 10.4 per 1000 inhabitants in 1975 to 0.9 per 1000 inhabitants in 2000. However, starting with the present century, this trend has reversed, in such a way that the natural growth has increased from 1 per 1000 inhabitants in 2001 to 2.4 in 2007 (Table 1.2). An important part of this increase can be attributed to the massive arrival of population from other countries with birth rates higher than those of the population born in Spain.

Table 1.2. Birth rate, death rate and natural growth per 1000 inhabitants. Spain, 2001-2007

Year	Birth rate	Death rate	Natural growth
2001	9.98	8.84	1.14
2002	10.14	8.92	1.22
2003	10.52	9.16	1.36
2004	10.65	8.71	1.94
2005	10.75	8.93	1.82
2006	10.96	8.43	2.53
2007	10.98	8.59	2.39

Source: National Statistics Institute

In effect, the population of foreigners residing in Spain was 1,370,657 in 2001 and 5,268,762 in 2008. That is, in 2001 this group represented 3.3% of the total, while in 2008 it represented 11.4% of the total. These figures reflect the extraordinary growth of the foreign population living in Spain, whose numbers multiplied by almost four between 2001 and 2008 (Table 1.3). Fifty percent of the foreign population residing in Spain in 2008 was aged between 25 and 44 years and only 5% was 65 or older.

Table 1.3. Resident foreign population in Spain in 2001 and 2008 and increment in 2008 compared to 2001

Age	2001	2008	2008/2007
Total	1,370,657	5,268,762	3.8
0-4	50,888	251,367	4.9
5-14	121,415	492,992	4.1
15-24	199,563	785,860	3.9
25-44	651,107	2,625,947	4.0
45-64	236,216	856,817	3.6
65 and over	111,468	255,779	2.3

Source: National Statistics Institute. Statistical use of the Municipal Registers of Inhabitants

In any case, it must be mentioned that the percentage of foreign population residing in Spain varies considerably depending on the autonomous community (Table 1.4). The autonomous communities with the highest percentages in 2008 were Baleares, Comunidad Valenciana, Madrid, Murcia and Cataluña, with a foreign population of between 15% and 20%. In contrast, foreigners in Extremadura, Galicia and Asturias represented less than 4% of the population.

Table 1.4. Resident population in Spain, by autonomous community of residence. 2008

	Total	Foreign population	Percentage
Total	**46,157,822**	**5,268,762**	**11.4**
Andalucía	8,202,220	623,279	7.6
Aragón	1,326,918	154,892	11.7
Asturias	1,080,138	40,804	3.8
Baleares	1,072,844	223,036	20.8
Canarias	2,075,968	283,847	13.7
Cantabria	582,138	33,242	5.7
Castilla y León	2,557,330	154,802	6.1
Castilla-La Mancha	2,043,100	206,008	10.1
Cataluña	7,364,078	1,103,790	15.0
Comunidad Valenciana	5,029,601	847,339	16.8
Extremadura	1,097,744	35,315	3.2
Galicia	2,784,169	95,568	3.4
Madrid	6,271,638	1,005,381	16.0
Murcia	1,426,109	225,625	15.8
Navarra	620,377	65,045	10.5
País Vasco	2,157,112	117,337	5.4
Rioja	317,501	43,856	13.8
Ceuta	77,389	3,124	4.0
Melilla	71,448	6,472	9.1

Note: The regional health services of the autonomous communities have their own population registers (containing records of what is known variously as the health card population, the population covered, etc.)
Source: National Statistics Institute. Statistical use of the Municipal Registers of Inhabitants

The evolution of natality can be studied more precisely by looking at the fertility rate, which indicates the number of births per 1000 women aged between 15 and 49 years. The trend here was similar to the one observed in the birth rate: a significant decrease starting in 1975, when there were 79.2 births per 1000 women between the ages of 15 and 49 and continuing to the year 2000, when there were 38.1 births in the same group. Subsequently, the trend reversed, and the rate went from 38.5 births per 1000 women aged 15 to 49 in 2001 to 43.3 in 2007 (Table 1.5).

Nonetheless, it must be noted that there is a high degree of heterogeneity in the fertility rate in the different regions of Spain. In 2007, the rate varied from around 60 births per 1000 women aged 15 to 49 in Ceuta and Melilla, to around 50 in Cataluña and Murcia and to around 30-35 in Asturias, Galicia, Castilla y León and Canarias.

Table 1.5. Fertility rate by autonomous community. Spain, 2001 and 2007

	2001	2007
National total	38.5	43.3
Andalucía	41.9	45.9
Aragón	36.0	42.4
Asturias	25.6	30.9
Baleares	42.9	44.0
Canarias	39.0	35.6
Cantabria	30.9	38.0
Castilla y León	30.0	34.3
Castilla-La Mancha	39.8	43.0
Cataluña	40.1	47.1
Comunidad Valenciana	39.6	44.4
Extremadura	38.6	37.6
Galicia	28.9	32.8
Madrid	40.5	46.5
Murcia	48.0	51.4
Navarra	41.1	45.4
País Vasco	32.8	39.9
Rioja	35.6	43.4
Ceuta	51.2	61.1
Melilla	63.4	62.3

Source: National Statistics Institute. Statistical use of Municipal Registers of Inhabitants

1.2 Socio-economic health determinants

One of the characteristics most closely related to a person's health is that person's education, measured normally in terms of the highest level of education completed. Over the last two decades Spain has seen an important increase in the population's average level of education. For example, between 1991 and 2007, the percentage of people aged 16 and over who had completed secondary or higher education rose from 42% in 1991 to 67.5% in 2007, as shown in the following table Table 1.6.

Table 1.6. Distribution of the population aged 16 and over, by level of education. Spain, 1991-2007

Level of education	1991	1997	2001	2007
Illiterate	4.9	3.7	3.3	2.2
No education	15.4	13.1	12.2	8.9
Primary education	37,7	31.6	25.8	20.8
Secondary education	33,9	36.1	40.1	44.7
1st cycle	..	20.7	23.0	29.7
2nd cycle	..	15.4	17.1	20.0
Higher education	8,1	13.8	18.6	22.8
University	8.1	9.7	13.1	15.9
Other types of higher education	..	4.1	5.6	6.9

Source: National Statistics Institute

The percentage of people who have completed secondary or higher education rose from 45.4% in 2001 to 70.6% in 2007 for men and from 38.9% in 2001 to 64.6% in 2007 for women (Table 1.7). In 2007, the percentage of men and women with higher education was very similar -23.3% in men and 22.4% in women. However, the percentage of people with only secondary education was higher in men - 47.3% - than in women - 42.3%.

Table 1.7. Distribution of men and women aged 16 and over, by level of education. Spain, 1991-2007

Level of education	1991	1997	2001	2007
Men				
Illiterate	2.8	2.2	2.0	1.4
No education	14.0	11.6	10.6	8,1
Primary education	37.9	31.6	25.2	19.9
Secondary education	36.7	38.1	42.4	47.3
Higher education	8.7	14.8	19.5	23.3
Women				
Illiterate	6.9	4.9	4.4	3,0
No education	16.7	14.3	13.7	10,7
Primary education	37.5	30.5	26.5	21.7
Secondary education	31.3	35.9	37.7	42.3
Higher education	7.6	14.3	17.8	22.4

Source: National Statistics Institute

However, a more valid indicator of the increase in the population's average level of education is the percentage of the population aged 20 to 64 years who have completed at least the second cycle of secondary education -that is, non-compulsory secondary schooling that follow the compulsory cycle. In 2007, half of the population of that age group had completed bachillerato or higher education, while in 1991 the figure was 38% (Table 1.8).

Table 1.8. Percentage of population aged 25 to 64 with at least the second cycle of secondary education. Spain, 1991-2007

Age groups	1991	1997	2001	2007
25-64 years	38.2	33.5	40.4	50.7
25-34 years	69.1	51.2	57.5	64.8
35-44 years	38.3	38.5	45.3	56.4
45-54 years	20.6	21.9	29.5	43.7
55-64 years	12.0	11.9	17.5	28.3

Source: National Statistics Institute

The level of education completed by the population shows a high degree of geographical variation. In Navarra, Madrid and País Vasco, the percentage of the population aged 16 and over with higher education was around 30% in 2007, while in Extremadura, Castilla-La Mancha and Melilla it was around 16% and in Ceuta it was 12% (Table 1.9).

Table 1.9. Percentage of population aged 16 and over with higher education, by autonomous community. Spain, 2007

	2007
National total	22.8
Andalucía	18.8
Aragón	24.9
Asturias	22.8
Baleares	17.2
Canarias	19.8
Cantabria	25.2
Castilla y León	22.0
Castilla-La Mancha	16.7
Cataluña	22.6
Comunidad Valenciana	21.1
Extremadura	16.2
Galicia	21.7
Madrid	31.1
Murcia	18.8
Navarra	30.1
País Vasco	33.9
Rioja	23.7
Ceuta	12.3
Melilla	16.7

Source: National Statistics Institute

The similarity of the trend towards increasing levels of education in both men and women contrasts with the differing trend in the activity rate according to gender. In fact, one of the most relevant socio-economic facts of the past

two decades was the increasing incorporation of women into the labour market, while in the case of men the rate of activity remained stable. In women the activity rate rose from 34.7% in 1991 to 48.9% in 2007, while in men the rate was around 69% in both years (Table 1.10).

Table 1.10. Activity rate, expressed in percentages. Spain, 1991-2007

	1991	1997	2001	2007
Both sexes	50.8	51.6	53.0	58.9
Men	68.0	65.1	66.2	69.3
Women	34.7	38.9	40.4	48.9

Source: National Statistics Institute

Another relevant socio-economic fact is the significant fall in the unemployment rate starting in the second half of the nineties. It decreased from almost 21% in 1997 to 8% in 2007 (Table 1.11). Table 1.11 also shows that unemployment affects women in a greater proportion than men. In 2007, the unemployment rate was 6.4% in men and 10.9% in women.

Table 1.11. Unemployment rate expressed in percentages. Spain, 1991-2007

	1991	1997	2001	2007
Both sexes	16.3	20.6	10.6	8.3
Men	12.1	15.8	7.5	6.4
Women	24.1	28.2	15.2	10.9

Source: National Statistics Institute

In 2007, Baleares, Madrid and Cataluña showed the highest activity rates, while the lowest activity rates were in Asturias, Ceuta and Extremadura. That year, the highest rates of unemployment were found in Ceuta (20.3%), Melilla (18.2%), Extremadura (13.1%) and Andalucía (12.8%) and the lowest unemployment rates were in Navarra, Aragón, Rioja and Cantabria. In these three autonomous communities the unemployment rate was below 6%.

Table 1.12. Activity rate and unemployment rate by autonomous community. Spain, 2007

	Activity rate	Unemployment rate
National Total	58.9	8.3
Andalucía	56.2	12.8
Aragón	58.8	5.2
Asturias	50.5	8.5
Baleares	64.1	7.0
Canarias	61.0	10.4
Cantabria	56.2	5.9
Castilla y León	53.7	7.2
Castilla-La Mancha	56.0	7.6
Cataluña	62.5	6.5
Communidad Valenciana	60.1	8.8
Extremadura	52.9	13.1
Galicia	54.3	7.6
Madrid	63.9	6.3
Murcia	60.5	7.6
Navarra	60.8	4.8
País Vasco	57.6	6.1
Rioja	58.9	5.7
Ceuta	51.6	20.3
Melilla	54.1	18.2

Source: National Statistics Institute

1.3 Life expectancy

Life expectancy

Life expectancy (LE) is the most traditional and most commonly-used indicator to assess the health status of a given population. It is related not only to the population's level of health but also to its social and economic circumstances. Life tables are used to calculate it and the resulting life expectancy at birth indicates the average number of years that an individual can be expected to live, if the current death rates by age remain the same. It is, therefore, a hypothetical measure, since mortality rates are, of course, subject to change as time passes, but at the same time it is a measure that is

independent of the population's age structure and can thus be used to compare different countries or regions and to study their evolution over time.

In Spain in 2007 the LE at birth was 81.1 years, 77.8 for men and 84.3 for women (Table 1.13). The LE in 2007 rose by 1.7 years with respect to 2000, the increase being slightly greater for men (1.7) than for women (1.5). As for the LE at age 65, it was 20 years, 17.8 and 21.9 for men and women respectively. Compared to the year 2000, LE at age 65 in 2007 increased by 1.2 years, with the increase being greater among women (Table 1.13).

Table 1.13. Life expectancy and healthy life expectancy at birth and at age 65, by sex. Spain, 2000-2007

	Life expectancy		Healthy life expectancy	
	2000	2007	2002	2007
At birth				
Total	79.4	81.1	55.1	55.3
Men	76.1	77.8	56.3	57.2
Women	82.8	84.3	53.9	53.4
At age 65				
Total	18.8	20.0	7.0	7.9
Men	16.7	17.8	7.4	8.6
Women	20.6	21.9	6.6	7.2

Source: National Statistics Institute and the Health Information Institute of the Spanish Ministry of Health and Social Policy

Table 1.14 shows the LE estimates in the different autonomous communities in Spain in 2000 and 2007. In 2007, the difference between the highest and the lowest LE was 3.1 years. Navarra and Madrid (82.5 years), followed by Castilla y León (82.1), Rioja (81.8) and Aragón (81.7) were the communities with the highest LE, while Ceuta and Melilla (79.5), Andalucía (79.8) and Canarias and Asturias (80.4 in both) were the communities with the lowest LE.

Between the years 2000 and 2007, LE at birth increased in all the autonomous communities. This increase was greatest in Baleares, where the LE rose from 78.7 in 2000 to 81.6 in 2007. Increases of over 2 years were seen in Canarias, Cataluña and Madrid. Asturias, with an increase of 1.2 years, and Rioja, Castilla y León and Cantabria, where the increase was 1.3 years, were the communities with the lowest increase in LE between 2000 and 2007.

Healthy life expectancy

The significant relative increase in the number of older citizens and the prevalence of chronic diseases and incapacity (consequences of the rise in LE) have created a situation in which health indicators based solely on mortality are insufficient for describing the evolution of the health status of the population in developed countries. Recognition of such insufficiency has led to the development, starting in the 1970s, and especially in the 1980s, of a series of indicators which, along with mortality, take into account some measure of the population's health or incapacity. Among these indicators is the healthy life expectancy (HLE), which adjusts the years of life with respect to the subjective perception of health. Thus, the HLE at birth indicates the average number of years that an individual in a given population could expect to live in good health, if mortality and health perception rates were to remain the same.

In Spain in 2007 the HLE at birth was 55.3 years, 57.2 for men and 53.4 for women (Table 1.13). With respect to 2002, in 2007 HLE was 0.9 years higher for men, while for women a decrease of 0.5 years was observed during the same period. As for HLE at age 65, it was 7.9 years, 8.6 and 7.2 for men and women respectively (Table 1.13). Compared to 2002, in 2007 the HLE at age 65 had increased by 0.9 years, with the increase being greater among men (1.2 years) than among women (0.6).

Examining the figures for the autonomous communities, in 2007 the difference between the highest and the lowest HLE was 15 years. Rioja (62.8), Castilla y León (61.3), País Vasco (59.8) and Cantabria (59.6) were the communities with the highest HLE, while Galicia (47.8), Murcia (50.7), Comunidad Valenciana (52.5) and Extremadura (52.6) were the communities with the lowest HLE at birth.

Between the years 2002 and 2007, HLE at birth increased in most of the autonomous communities. This increase was greatest in Canarias and Baleares, where the HLE at birth rose by more than 6 years. In contrast, HLE fell in several autonomous communities between 2002 and 2007, the decrease being the greatest in Comunidad Valenciana, Murcia and Navarra, where HLE fell by over two years during the period studied (Table 1.14).

Table 1.14. Life Expectancy and Healthy Life Expectancy at birth, by autonomous community. Spain, 2000 and 2007

	Life Expectancy		Healthy Life Expectancy	
	2000	2007	2002	2007
Spain	**79.4**	**81.1**	**55.1**	**55.3**
Andalucía	78.3	79.8	51.2	54.8
Aragón	80.1	81.7	60.3	59.1
Asturias	79.2	80.4	50.9	53.8
Baleares	78.7	81.6	51.4	57.8
Canarias	77.7	80.4	47.5	54.5
Cantabria	79.8	81.1	54.7	59.6
Castilla y León	80.8	82.1	59.5	61.3
Castilla-La Mancha	80.1	81.5	51.3	55.2
Cataluña	79.1	81.6	56.0	55.2
Comunidad Valenciana	78.8	80.6	59.3	52.5
Extremadura	79.0	80.6	52.9	52.6
Galicia	79.5	81.0	48.6	47.8
Madrid	80.4	82.5	57.7	58.6
Murcia	78.6	80.5	54.0	50.7
Navarra	80.7	82.5	60.2	57.6
País Vasco	79.9	81.6	59.5	59.8
Rioja	80.5	81.8	62.3	62.8
Ceuta and Melilla	78.0	79.5	51.2	52.8

Source: National Statistics Institute and the Health Information Institute of the Spanish Ministry of Health and Social Policy

1.4 Mortality

Infant mortality

Despite the fact that in economically-developed countries the infant mortality rate has lost sensitivity in its ability to indicate the socio-economic level and health status of a given population, this indicator continues to be vital in any assessment of a population's health situation.

Infant mortality in Spain has continued to fall steadily during the present decade, even though the observed rate is already low: if in 2001 the rate was 4.1 deaths in children under one year of age per 1000 live births, in the year 2007 it was 3.5 (Table 1.15). Infant mortality rates shows geographical

variation: Navarra -with 2.3 infant deaths per 1000 live births- Cataluña and Baleares -with 2.6 and 2.7 infant deaths per 1000 live births- were the communities with lowest infant mortality in 2007, while Ceuta (8.8), Asturias (5.9) and País Vasco (4.3) were the communities with the highest infant mortality.

Table 1.15. Infant mortality rate by autonomous community. Spain, 2001 and 2007

	2001	2007
Total	4.1	3.5
Andalucía	4.6	4.1
Aragón	5.0	3.8
Asturias	5.4	5.9
Baleares	5.4	2.7
Canarias	5.2	4.0
Cantabria	1.9	3.5
Castilla y León	2.6	3.2
Castilla-La Mancha	4,0	3.4
Cataluña	3.3	2.6
Comunidad Valenciana	3,7	3.5
Extremadura	4.4	3.3
Galicia	3.6	3.3
Madrid	3.8	2.8
Murcia	5.5	3.9
Navarra	3.0	2.3
País vasco	3.4	4.3
Rioja	5.4	3.4
Ceuta	3.1	8.8
Melilla	7.9	2.7

Source: Health Information Institute of the Spanish Ministry of Health and Social Policy

Mortality by cause of death

In 2007 there were 385,361 deaths in Spain, which represents about 25,000 more than at the beginning of the decade. Approximately 80% of the deaths were due to five large groups of causes of death: diseases of the circulatory

system, cancer, diseases of the respiratory system, diseases of the digestive system, and external causes such as injuries and poisoning (Table 1.16).

Table 1.16. Deaths by cause of death, proportional mortality expressed in percentages and death rate per 100,000 inhabitants. Spain, 2001 and 2007

	Deaths	Percentage	Mortality rate
2001			
Total	360,131	100.0	884.4
Circulatory system diseases	124,389	34.5	305.5
Cancer	94,363	26.2	231.7
Respiratory system diseases	37,362	10.4	91.8
Digestive system diseases	18,407	5.1	45.2
External causes	15,999	4.4	39.3
2007			
Total	385,361	100.0	858.8
Circulatory system diseases	124,126	32.2	276.6
Cancer	99,994	25.9	222.8
Respiratory system diseases	44,029	11.4	98.1
Digestive system diseases	19,650	5.1	43.8
External causes	15,916	4.1	35.5

Source: National Statistics Institute and the Health Information Institute of the Spanish Ministry of Health and Social Policy

Around one third of the deaths were from diseases of the circulatory system and around one fourth were due to cancer. In addition, the rates of mortality for both of these diseases show a steady decline: over the past three decades in the case of circulatory system diseases and since the 1990s in the case of cancer. In 2007, the rates of mortality due to circulatory system disease and to cancer were 276.6 and 222.8 per 100,000 inhabitants, respectively.

The distribution by age of these causes of death varies, as shown in Table 1.17. Around 80% of the deaths from diseases of the circulatory system and from diseases of the respiratory system occurred in persons over the age of 74 and the rest were mainly in the group aged 45 to 74 years. As for cancer, approximately half of the deaths occurred in the group above the age of 74,

while practically all of the other half was in the group aged 45 to 74 years. 62% of the deaths from digestive system diseases occurred in people over the age of 74 and 34% took place in the 45 to 74 age group. As for deaths from external causes, one third took place in the group aged 15 to 44 years, another third in the group aged 45 to 74 years and the other third in the group aged over 74.

Table 1.17. Percentage distribution by age of deaths from the main causes of death. Spain, 2007

Age	Circulatory system diseases	Cancer	Respiratory system diseases	Digestive system diseases	External causes
<15	0.0	0.2	0.2	0.1	1.7
15-44	1.4	3.2	1.6	3.6	33.6
45-74	20.9	47.7	17.7	34.4	32.1
75 and over	77.7	48.9	80.6	61.9	32.6

Source: Health Information Institute of the Spanish Ministry of Health and Social Policy

1.5 Accidents

Victims of traffic accidents

During the present decade, the number of traffic accident victims in Spain has decreased steadily. In 2008 there were 134,047 victims of traffic accidents, 21,000 less than in 2001. The rate of victims per 1000 accidents and the rate of victims per 100,000 inhabitants fell by 7% and 23%, respectively (Table 1.18).

Table 1.18 also shows that deaths from traffic accident experienced a significant decline: the figure went from 5517 in 2001 to 3100 in 2008, which means a decrease of 40% in the rate of deaths per 1000 accidents and of 50% in the rate of deaths per 100,000 inhabitants.

Table 1.18. Number of total victims and deaths from traffic accidents, rates per 1000 accidents and per 100,000 inhabitants. Spain, 2001-2008

	Total victims			Deaths		
Year	Total	Rate per 1000 accidents	Rate per 100,000 inhabitants	Total	Rate per 1000 accidents	Rate per 100,000 inhabitants
2001	155,116	1545	381	5517	55.0	13.5
2002	152,264	1547	369	5347	54.3	12.9
2003	156,034	1561	371	5399	54.0	12.9
2004	143,124	1522	335	4741	50.4	11.1
2005	137,251	1505	316	4442	48.7	10.2
2006	147,554	1479	335	4104	41.1	9.3
2007	146,344	1456	326	3823	38.0	8.5
2008	134,047	1439	294	3100	33.3	6.8

Source: National Traffic Authority and the Health Information Institute of the Spanish Ministry of Health and Social Policy

Victims of accidents at work

In 2008, there were 804,959 workplace accidents during working hours, which means there were 140,000 fewer accidents than in 2001. The present decade has shown a steady decline in the frequency of this type of accident. Thus, as shown in Table 1.19, the frequency of workplace accidents during working hours went from 42.8 accidents per million hours worked in 2001 to 30.8 in 2008. Similarly, the frequency of fatal workplace accidents during working hours went from 4.7 per one hundred million hours worked in 2001 to 3.1 in 2008.

The sector with the highest frequency of workplace accidents is construction. However, this is also the sector that has experienced the greatest decline in the accident frequency index: the figure went from 102.7 accidents per million hours worked in 2001 to 62.4 in 2008. Industry is the sector with the second highest frequency of accidents: in 2008 the frequency index was 52.7 (Table 1.19).

Table 1.19. Frequency index of accidents at work during working hours, by activity sector. Spain, 2001 and 2008

	2001	2008
All accidents*		
Total	42.8	30.8
Agriculture	14.6	14.9
Not agriculture	46.7	32.3
Industry	64.1	52.7
Construction	102.7	62.4
Services	30.4	22.1
Fatal accidents*		
Total	4.7	3.1
Agriculture	4.1	3.4
Not agriculture	4.7	3.1
Industry	5.2	4.0
Construction	11.0	8.5
Services	3.4	1.9

Observations: *Number of accidents per million hours worked
Source: Spanish Ministry of Labour

1.6 Subjective perception of health

One of the most frequently-used health measures is the subjective perception that individuals have of their own health; this measure has proven its validity and predictive capacity regarding the use of services and mortality.

In the year 2007, when questioned about their health, 72.6% of men and 60.6% of women aged 16 and over stated that their health was good or very good, while 6.9% and 10.4% of men and women respectively deemed their health to be poor or very poor (Table 1.20). The percentage of the population that considered its health to be good or very good was lower in 2006/07 than in 2001. This decline was greater among women, in whom the percentage fell by more than 3%.

Table 1.20. Subjective perception of health by age and sex. Spain, 2001 and 2006/07

	2001		2006/07	
	Men	Women	Men	Women
Age 16 and over				
Very good or good	75.4	64.0	72.6	60.6
Fair	18.6	27.2	20.5	28.9
Poor or very poor	6.0	8.8	6.9	10.4
Age 65 and over				
Very good or good	47.4	36.3	48.4	33.2
Fair	38.3	45.3	38.4	44.0
Poor or very poor	14.3	18.4	13.2	22.8

Source: Health Information Institute of the Spanish Ministry of Health and Social Policy

In 2006/07, the percentage of people aged 65 and over who deemed their health to be good or very good was 48.4% in the case of men and 33.2% in the case of women. That same year 22.8% of women and 13.2% of men considered their health to be poor or very poor. Compared to 2001, in 2006/07 the positive assessment of health in people aged 65 and over increased in men and decreased in women.

1.7 Incapacity

The current epidemiological pattern of morbidity and mortality, with its predominance of chronic illnesses and conditions, makes indicators related to the consequences of illness especially relevant. Monitoring incapacity is possible in Spain thanks to two specific surveys conducted by the National Statistics Institute in 1999 and 2008.

In 2008, the percentage of the Spanish population that suffered some type of incapacity was 85.5‰. As shown in Table 1.21, the rate of incapacity per 1000 inhabitants was greater in women (101) than in men (69.5). This rate of incapacity is more than 4‰ lower than that of 1999. Such reduction was greater among men, in whom the rate decreased by 7‰, than among women, in whom it fell by just 2‰.

Table 1.21. Total population and population aged 75 and over with some type of incapacity, per 1000 inhabitants, by sex. Spain, 1999 and 2008

	Total population		Population aged 75 and over	
	1999	2008	1999	2008
Both sexes	89.9	85.5	459.7	422.0
Men	76.6	69.5	404.3	342.0
Women	102.7	101.0	492.8	473.4

Source: National Statistics Institute and the Health Information Institute of the Spanish Ministry of Health and Social Policy

The rate of incapacity increased significantly in the population aged 75 years and over, among whom 422 of every thousand had some type of limitation in 2008 (Table 1.21). Like in the population as a whole, in people aged 75 and over incapacity is more frequent in women and, in both sexes, rates have been diminishing since 1999.

1.8 Unhealthy lifestyle habits

Tobacco use

In 2006/07, 29.5% of the Spanish population aged 16 and over were smokers. This percentage, which has been falling over the past two decades, was 34.5% in 2001. Table 1.22 shows these percentages by age and sex. By sex, 35.3% of men and 23.9% of women were smokers in 2006/07. By age, in both sexes, the group with the highest percentage of smokers was the 25 to 44 year olds (43.6% in men and 33.9% in women). The prevalence of tobacco use is greater among men than among women in all age groups, except in the group aged 16 to 24 years.

Since 2001, the prevalence of tobacco use has diminished in both men and women, although the decrease has been greater in men. The reduction in the prevalence of smoking between 2001 and 2006/07 was observed in all age groups in men. However, in women aged 45 to 64 and aged 65 and over the percentage of smokers increased during this period.

Table 1.22. Percentage of smokers and percentage of drinkers, by age and sex. Spain, 2001 and 2006/07

	Men		Women	
	2001	2006/07	2001	2006/07
Cigarette use				
Total	42.2	35.3	27.3	23.9
16-24	40.9	31.1	42.7	32.7
25-44	52.8	43.6	43.6	33.9
45-64	42.8	37.0	17.5	22.8
65 and over	19.2	15.4	2.0	3.1
Alcohol consumption*				
Total	68.5	70.2	37.2	41.8
16-24	61.8	61.9	47.4	46.5
25-44	75.0	72.6	45.1	47.1
45-64	72.4	73.6	36.6	44.1
65 and over	54.4	65.1	18.4	26.9

Observations: *Consumption of alcoholic beverages in the past two weeks
Source: Health Information Institute of the Spanish Ministry of Health and Social Policy

Alcohol consumption

Around 56% of the Spanish population aged 16 and over stated in 2006/07 that they had consumed alcoholic beverages in the past two weeks. The percentage was greater in men (70%) than in women (42%) (Table 1.22). In terms of age, men aged 45 to 64 was the group with the largest percentage of alcohol consumers (73.6%), while in women the largest percentage (47.1%) was found in the 25 to 44 age group. Compared to 2001, the percentage of drinkers increased slightly in 2006/07, in both sexes and in all age groups except men aged 25 to 44 years and women aged 16 to 24 years.

Use of other drugs

In the year 2006, 30% of Spain's population aged 14 to 18 stated that they had consumed cannabis in the past twelve months. In the same group, 4.8% stated that they had consumed tranquilisers and sleeping pills without a prescription, 4.1% had consumed cocaine and 2.8% hallucinogens (Table 1.23). As for the trend in the use of psychoactive substances in the population aged 14 to 18 years, a reduction in the percentage of consumers has been observed since 2000, except for cannabis and heroin, which increased slightly.

In 2007 cannabis was also the substance most frequently consumed (10%) by the group aged 15 to 64 years. Of this age group, 3% stated that they had consumed cocaine in the past twelve months and 1.3% had consumed hypnosedatives. Except for cannabis and cocaine, which increased slightly, substance use fell between 2001 and 2007 in the Spanish population aged 15 to 64 (Table 1.23).

Table 1.23. Percentage of population aged 14 to 18 and aged 15 to 64 who say they have consumed different types of psychoactive substances in the last 12 months. Spain, 2000-2007

	Population aged 14 to 18		Population aged 15 to 64	
	2000	2006	2001	2007
Hypnosedatives*	5.0	4.8	2.8	1.3
Cannabis	28.8	29.8	9.2	10.1
Ecstasy	5.2	2.4	1.8	1.1
Hallucinogens	4.2	2.8	0.7	0.6
Amphetamines	3.5	2.6	1.1	0.9
Cocaine	4.8	4.1	2.5	3.0
Heroin	0.4	0.8	0.1	0.1
Volatile inhalants	2.5	1.8	0.1	0.1

Observations: *Tranquilisers and sleeping pills without a prescription
Source: Spanish National Plan on Drugs

Sedentary lifestyle

In 2006/07, around 40% of the Spanish population aged 16 and over stated that they engaged in no physical activity whatsoever during their leisure time. This percentage of sedentary adult population was greater among women (42%) than among men (36%). By age group, a sedentary lifestyle was most common in men aged 25 to 44 years and 45 to 64 years, while in women, the highest percentages were found from the ages of 16 to 44 years (Table 1.24). Sedentary lifestyles were more frequent among women than among men in all age groups, although the differences were greater in young people and in elderly people: if approximately 28% of men aged 16 to 24 years and 65 and over described themselves as sedentary, the percentage of women in the same age groups who did so was about 44%.

Despite these high proportions of sedentary population, there seems to be a declining trend in recent years. The decrease is somewhat greater among women, in whom the percentage fell by 10% between 2001 and 2006/07, than

among men, in whom it fell by barely 5%. By age, except in the youngest men, in whom a sedentary lifestyle may be on the rise, the percentage of sedentary population decreased between 2001 and 2006/07. This decline was greatest in individuals aged 65 and over, in whom the percentage of sedentary people fell by 13% and 18% in men and women respectively between the two years studied.

1.9 Obesity

In the year 2007, just over 15% of the Spanish population aged 18 and over was obese (Table 1.24). The percentage was slightly higher among men (15.6%) than among women (15.1%). In both sexes, the percentage of obese population increased with age: if around 5% of men and women aged 18 to 24 were obese, the figures were 21% and 26% respectively in men and women aged 65 and over.

The frequency of obesity has been increasing in Spain for two decades. Between 2001 and 2007, the increase in the prevalence of obesity was greater in men, in whom it increased by 3.2%, than in women, in whom it rose 1% (Table 1.24). In all age groups, with the exception of women aged 45 and over, the frequency of obesity increased during the period studied. The increment was greatest among men aged 45 to 64 years, in whom obesity increased by 5% between 2001 and 2007 (Table 1.24).

Table 1.24. Percentage of sedentary population and percentage of obese population, by age and sex. Spain, 2001 and 2006/07

	Men		Women	
	2001	2006/07	2001	2006/07
Sedentary lifestyle				
Total	**41.2**	**36.4**	**52.2**	**42.4**
16-24	25.9	28.2	49.9	44.5
25-44	42.9	39.5	50.2	45.1
45-64	48.0	40.2	48.0	36.8
65 and over	41.7	28.6	61.9	43.9
Obesity*				
Total	**12.4**	**15.6**	**14.1**	**15.1**
18-24	3.7	5.4	2.1	5.3
25-44	10.5	12.1	7.0	10.1
45-64	16.3	21.3	21.5	19.0
65 and over	17.4	21.0	26.9	26.0

Observations: *Body mass index ≥ 30 kg/m²
Source: Health Information Institute of the Spanish Ministry of Health and Social Policy

2 Institutional description and analysis

2.1 Organisation and management formulas of Spain's National Health System

Background and general characteristics

The legal framework of Spain's National Health System (hereinafter SNS, for its Spanish acronym) is the General Health Care Act of 1986, the Law on Cohesion and Quality in the SNS of 2003[1] and the laws enacted by the autonomous communities in the exercise of the powers laid down in their respective statutes of autonomy.

Under the provisions set forth therein, all of Spain's autonomous communities have a common organisational pattern for their health care systems. The pattern is based on a Regional Ministry or Department of Health, or Health Care, which, in addition to setting health care policy, performs the functions of administration in the strict sense. These functions include those arising from the exercise of authority in matters of health care. The Regional Ministries or Departments are also responsible for the planning and regulation of health services. Some autonomous communities also specify that the powers held by their Regional Ministry include the financing and procurement of health services.

Services are provided by the Regional Health Services, which are generally independent bodies of an administrative nature that depend on the Regional Ministries. However, the autonomous communities also sign agreements with public and private bodies for the provision of care services. In terms of territory, the Regional Health Services are organised into Health Care Areas, which encompass primary care and specialised care. These two care levels tend to have differentiated management configurations within each area.

The management instrument generally used is that of contract-programmes, or management contracts[2]. Such a contract defines the quantitative and qualitative objectives, the budget and the evaluation system.

1 General Health Care Act:
http://www.boe.es/aeboe/consultas/bases_datos/doc.php?coleccion=iberlex&id=1986/10499;
Law on Cohesion and Quality:
http://www.boe.es/aeboe/consultas/bases_datos/doc.php?coleccion=iberlex&id=2003/10715

2 Such contract-programmes, or management contracts, have different names in the different autonomous communities.

The time period referred to in the contracts tends to be one year. The contracts are made between the Regional Ministries and the Health Services, and between the latter's governing bodies and the health care areas or facilities.

The organisation of the health care system thus has the following general characteristics:

- The functions of planning and authority are attributed to the Regional Ministries or Departments.
- The services themselves are provided by the Health Services, which depend on the Regional Ministries and are organised into Health Care Areas.
- The management instrument is the contract-programme, which defines the objectives, the budget and the evaluation system.

Nonetheless, there are significant differences in how autonomous communities put this organisation in practice, as discussed below.

The functions of planning, financing, procuring and providing health services

Almost all of the Regional Ministries, as indicated above, distinguish between the planning and the provision of services. In Cataluña, this separation is even greater, as it also applies to the planning, financing, procuring and providing of services:

- Financing: the Department of Health, in addition to setting health care policy, allocates funds and establishes the priorities of the budget made available to it by the autonomous government.
- Procurement: the Cataluña Health Service (Cat Salud) acts as an insurer that procures services from different providers, both public and private.
- Provision of services: the health care network of public use is comprised of the different public and private providers contracted by Cat Salud.

The health service providers include those managed directly by the autonomous government, which are affiliated with the Cataluña Health Institute, and also centres and institutions that belong to private foundations, municipal societies, consortia, religious orders, insurance mutuals, private societies and associative bodies called EBAs, which are groups of health professionals set up to work as a self-managed primary care team.

The Madrid Health Care System also separates the procurement and provision functions. The Regional Ministry is responsible for setting health care policy and the Madrid Health Service is in charge of procuring the services. However, the Madrid Health Service does not only procure the services, it also performs the task of providing services through the centres and services attached to it. The Madrid Health Service is also in charge of the functions related to budget configuration and allocation.

Management formulas

In the SNS most service provision is public. As mentioned above, the Regional Health Services are organised into Health Care Areas that provide both specialised care and primary care, through either a single management body or two separate management bodies. Examples of single, integrated management bodies are the Health Care Areas of Menorca and Eibissa-Formentera, those of Canarias (except the capital island), Ferrol in Galicia, and also those of Estella and Tudela in Navarra. The provision of services, in some places, also takes place directly through public bodies with different legal configurations. However, certain autonomous communities (for instance, Cataluña, to a large degree) also use management formulas based on contracts with private or public bodies as ways of providing care (Table 2.1):

- In Andalucía, health care service provision takes place through the network of primary care centres and hospitals in the Andalucía Health Service, and also through the specialised care centres with high resolution capacity dependent upon public enterprises (examples include the hospitals Costa del Sol, Poniente, Alto Guadalquivir and Bajo Guadalquivir). In Andalucía the public enterprise Health Emergency Company of Andalucía provides emergency response medical care and also co-ordinates other emergency care services.
- In Aragón it should be highlighted that the Aragón Health Consortium is a public body formed by associates on a voluntary basis, comprised of the Department of Health, the town councils of Ejea de los Caballeros, Fraga, Jaca and Tarazona, and the Mutual Accident Insurance of Zaragoza. This consortium manages the hospital in Jaca and the specialised care centres with high resolution capacity in Ejea, Fraga and Tarazona. In Aragón special mention must also go to the agreements signed with other public administrations, in the cases of the Ministry of Defence Hospital and the Mutual Accident Insurance of Zaragoza Hospital.
- In Baleares, although all care services are governed by a direct management model that depends on the Balearic Health Service, the hospitals Son Llátzer, Inca and Manacor are Public Health Care Foundations with their own legal personality. In this autonomous community there is also Health Management of Mallorca, a public enterprise attached to the Regional Health Service that manages the General Hospital of Palma, the Psychiatric Hospital of Palma and Joan March Hospital in Bunyola.
- Canarias uses the formula of a public enterprise –named Management Health and Safety Services in Canarias– to manage activities such as

urgent care and patient transport, emergency response co-ordination, training in the area of public health and safety, as well as financial management and the collection of revenue to be used for health care.

- In Cataluña different management formulas are used: direct, indirect and shared. As discussed above, Cat Salud is the body that procures services from different providers. In addition, Cat Salud can, under the health regulations of Cataluña, create entities or have a share in them as ways to manage the services of the public health care system. It is for this reason that Cat Salud has companies attached to it, such as the Institute of Diagnostic Imaging, the Medical Emergency System and the Pere Virgili Health Care Centre. Other public enterprises in Cataluña include the Catalonian Oncology Institute and the Blood and Tissue Bank of Cataluña. There are also various consortia, public entities created with different public or private, not-for-profit entities. Examples of consortia are the Hospital Consortium of Vic and the Parc Taulí Health Care Corporation of Sabadell. In the case of Cataluña, the legal configuration of the Catalonian Health Institute also deserves special mention. It is a public enterprise dependent upon the Department of Health, and it provides services to 76% of Catalonia's population. Also worthy of mention are the associations called EBAs, which are comprised of health professionals set up to work as a self-managed primary care team. In the health system of Cataluña both public and private foundations also exist. Examples of the latter are the Althaia and the St. Joan de Déu Foundations. The Health Care Management Foundation of Santa Creu i St. Pau is a public foundation.
- In the Comunidad Valenciana, Law 3/2003[3] provides that management and administration of health care centres, services and establishments can be performed by any legally-established entity and also through administrative concessions. In fact, the Ribera of Alzira Hospital began activities in 1999 as an administrative concession. Other concessions in this autonomous community are in Torrevieja, Manises, Marina Salud (Denia) and Eix Crivillente (Eix). Also to be highlighted in the Comunidad Valenciana are the hospital consortia that manage the Provincial Hospital of Castellón (consortium of the provincial government of Castellón and the Regional Ministry of Health) and the General University Hospital of Valencia (consortium of the provincial government of Valencia and the Regional Ministry of Health).

3 Law 3/2003, of 6 February 2003, on Health Care Regulation in the Comunidad Valenciana: http://www.boe.es/aeboe/consultas/bases_datos/doc.php?coleccion=iberlex&id=2003/04500

- For its service provision, Galicia has been using a formula called the Public Health Care Foundation. Among the foundations of this type existing in this autonomous community are the Galician Institute of Technical Medicine and the Health Emergencies Public Foundation of Galicia. In Galicia there is also Povisa Hospital, a private centre with a long-term agreement with the regional government to provide specialised care for a particular population.
- The Community of Madrid has incorporated in recent years two management formulas for its hospitals: hospitals built and put into operation under a public works contract, on the one hand, and, on the other, hospitals built and managed under the model of a public service contract, specifically, the concession form of a public service contract. Madrid has also entered into a singular agreement with the Jiménez Díaz Foundation. In addition, the Central Radiodiagnostics Unit has been set up as a public enterprise and the concession form of a public service contract is being used with the clinical laboratory corresponding to the hospitals Infanta Sofía, Infanta Cristina, Infanta Leonor, Sureste, Henares and Tajo. The Alcorcón Foundation Hospital has existed in Madrid since 1998, having been created under the provisions of Royal Decree Law 10/1996.
- In 2003 Murcia created the public enterprise GISCARMSA for the promotion, construction and operation of real property destined to help meet the region's needs in terms of health care and social health care infrastructure. The management model chosen is that of a specific lease agreement with the regional government for the construction, management and operation of the future hospitals in the region. GISCARMSA manages the actions and projects of the new Hospital of Cartagena, the Maternal and Children's Hospital of the Virgen de la Arrixaca University Hospital and the construction of the Mar Menor Hospital.
- In País Vasco the Department of Health regulates and finances the system and is also responsible for the area of citizens' rights and participation. Osakidetza - Basque Health Service - is in charge of service provision, as in other autonomous communities. The peculiarity of Osakidetza lies in the fact that it is a public body governed by private law. Also to be highlighted is Osatec, a public enterprise that depends on the Department of Health and is attached to Osakidetza. Osatec is in charge of the management, administration and operation of diagnostic imaging services using the most recent technological developments.
- In Rioja the Calahorra Foundation Hospital is a public institution within this community's public health care network. Founded by virtue of the resolution passed by the Council of Ministers on 7 April

2000, it is a not-for-profit institution established under the provisions of Royal Decree 29/2000.[4] The Foundation's Governing Board is comprised of the City Council of Calahorra and the Autonomous Community of Rioja. The Foundation provides care to about 84,000 inhabitants of the area known as Rioja Baja.

– The National Institute of Health Management (INGESA) is a management entity of the Social Security system attached to the Secretariat General of Health Care (of the Spanish Ministry of Health and Social Policy), the purpose of which is to provide health care services in the autonomous cities of Ceuta and Melilla.

All of the autonomous communities, in addition to the direct management through their health services or public bodies attached to the Regional Ministries, use long-term contracts or service agreements with public or private bodies in order to complement their own resources.

It is also very common in the SNS to find public bodies or public enterprises and foundations in the areas of innovation, research and teaching. These configurations are also used in actions within the social health care sphere. Examples of such entities are the Andalucía School of Public Health, the Health and Progress Foundation (Andalucía), the Rioja Health Foundation, the Marqués de Valdecilla Foundation (Cantabria), the Diabetes Foundation, the Foundation for Health Research and the Foundation of the National Hospital for Paraplegics (Castilla-La Mancha), the Laín Entralgo Agency (Madrid) and the Miguel Servet Foundation (Navarra).

In short, the provision of services in the SNS takes place in most cases directly by the Health Services of each autonomous community, although these Health Services also use formulas like public enterprises, consortia and foundations. Some autonomous communities have put health care centres and services into operation using other formulas, such as public works contracts and the government concession form of a service contract. Likewise, some public enterprises have been set up to build and operate new health care centres.

All of the autonomous communities use long-term contracts with public or private institutions to complement their own range of services and in some cases such contracts encompass all the health care services provided to a given population. This is true in the cases of Jiménez Díaz Foundation in Madrid, Povisa Hospital in Galicia and various centres in Cataluña.

To conclude, it is apparent that the autonomous communities are exploring alternatives to direct management through entities established under administrative law. Such alternative formulas include foundations and public enterprises created under either public or private law, as well as public

4 ROYAL DECREE 29/2000, of 14 January 2000, on new forms of management of the National Health Institute: http://www.boe.es/aeboe/consultas/bases_datos/doc.php?id=BOE-A-2000-1484

works contracts and the concession form of public service contracts. The management of innovation, research and teaching through foundations and other public bodies is generalised throughout the SNS.

Table 2.1. Management formulas used in the SNS

	Public Enterprises	Consortia	Foundations	Notes
Andalucía	Yes			
Aragón		Yes		Specific agreements with Ministry of Defence and Mutual Insurance Company of Zaragoza
Baleares	Yes		Yes	
Canarias	Yes			
Cataluña	Yes	Yes	Yes	Functions of financing, procuring and providing services are separate. Catalonian Health Institute is a gov-owned company. Co-operatives of health professionals set up to provide primary care
Comunidad Valenciana		Yes		Administrative concessions: Ribera Salud (Alzira), Torrevieja Salud, Manises, Marina Salud (Denia), Eix-Crevillente (Eix)
Galicia			Yes	Specific accord with a private hospital to provide care to a particular population
Madrid	Yes		Yes	Also, some hospitals are built and put into operation with a government public works contract and other hospitals are built and managed as a concession type of public service contract. There exists a singular agreement with one hospital
Murcia	Yes			
País Vasco	Yes			Osakidetza- Basque Health Service is a public body governed by private law
Rioja			Yes	
INGESA				A management entity of the Social Security system

Source: Includes information provided by autonomous communities and INGESA before final reporting date for inclusion in this document

2.2 Health Care Policies and Plans

To programme health care activities, each autonomous community draws up its own Health Plan. These plans comprise master plans, strategic plans, health strategies, health programmes and the planning of infrastructure. In 2008 the Health Plans continued to be the basis of health care planning throughout the SNS. There is a Health Plan in effect in all of the autonomous communities and some are currently in the process of evaluating or drawing up a new plan.

The issues of expanding patients' rights, greater citizen participation in health services and commitments undertaken with regard to the citizenry are mentioned explicitly in the Plans of several autonomous communities, such as Andalucía, Aragón and Cantabria. A specific subject that a number of Plans address is the need to reduce the maximum waiting period for surgery, consultations with specialists and diagnostic tests.

Specific attention to diseases of high prevalence, chronicity or disability burden, such as oncological or cardiovascular illnesses and diabetes, is targeted in specific plans and programmes put into effect in the Health Services. Also common are specific programmes pertaining to women's and children's health. Other specific plans address the issues of drug dependence or mental health.

Biomedical research, Information Technology (IT) and human resources are also the object of specific planning.

Andalucía

Andalucía has made a priority of the following lines of activity: increasing citizens' rights and guarantees, offering more and better services, reinforcing policies in public health and stimulating biomedical research.

In the expansion of citizens' rights, maximum waiting periods have been established for surgery (120-180 days), consultations with specialists (60 days) and diagnostic tests (30 days). Also important is the annual check-up for people over the age of 65 and the right to a second medical opinion. In addition, access to medicines at no cost has been introduced for children under the age of one and dental/oral health coverage has been extended to 18 years, and also covers pregnant women, people over 65 and the disabled. Preimplantation genetic diagnosis, or embryo screening, has also been regulated. Another important advance is the decree to guarantee the protection of adolescents who have cosmetic surgery.

Local Action Health Networks have been developed in 10 Andalucía municipalities. The purpose of these networks is to strengthen the intersectoral approach to health and give local governments a greater role in the promotion of health and prevention activities. There are also specific

plans against smoking, heart conditions, oncology, accidents, mental illness, diabetes, obesity and dependence.

The network of specialised care centres with high resolution capacity is now in the consolidation phase, with nine centres in operation, five under construction and 25 planned. Other plans in the area of infrastructure are the new hospital projects in Cádiz, Jaén, Ronda, La Línea and Málaga, and the improvement of the hospitals in Córdoba, Almería and Granada. As for primary care, plans are underway for the opening of 149 new health centres and local health facilities.

In recent years Andalucía has placed special importance on investment in IT, with the development of electronic medical records and the possibility of making appointments by telephone, Internet and SMS message. Other actions in this sphere include the Salud Responde platform (24-hour access to the Andalucía Health Service by telephone, e-mail and fax) and telephone interpreting services.

A strategic plan on research, development and innovation in health has been put in place, to promote scientific activity among health clinicians and professionals. Of special importance is the Andalucía Initiative in Advanced Therapies with three lines of research: cell therapy and regenerative medicine; clinical genetics and genomic medicine; and nanomedicine.

In the area of human resources, mention must be made of the public employment generated (over 13,000 jobs), the possibilities in professional training and career development and the strategic plan for on-going professional training.

Aragón

Aragón has set the following strategic objective: to increase the autonomy and responsibility of citizens with regard to their health and health-related decisions. It also intends to strengthen the client function of the system's users, ensuring them participation, information and choice. To do so, it plans to promote professional development, make the necessary facilities available to professionals and to orient organisation and management towards the clinical management model. These strategic objectives take concrete form in the "Charter of Commitments" to guarantee citizens' rights, the promotion of citizen participation, the provision of specific services for patients with chronic diseases and for dependent persons, and in various actions in the area of public health.

The Charter of Commitments undertaken with the citizenry includes specific reference to quality and outcomes in patients with cancer, acute coronary syndrome, diabetes, as well as the care provided to women, children and patients undergoing chronic treatment with anticoagulants. Commitments are also made regarding free choice, timely care, information and administrative accessibility.

To encourage citizens to truly take part in and have an influence in health issues, participation in health councils and patient associations is being strengthened, enhancing the role that such bodies play in the management of services, in bioethics committees and in the constitution of an advisory council on health and gender.

To ensure the sufficiency and equity of the benefits package, actions include a plan to improve primary care and guarantee the sufficiency of specialised care, including high technology services and the services available in rural settings. Specific actions are also proposed for chronic and dependent patients, in the areas of mental health and addictions and for patients in need of palliative care.

With regard to the system's professionals, Aragón has drawn up plans to ensure that the region has enough professionals and that they have maximum preparation, and to strengthen their autonomy and co-responsibility.

In public health, actions will focus primarily on the most disadvantaged sectors of society and on women.

All the foregoing actions are proposed within the framework of a legislative initiative that includes the Aragón Law on Public Health, the various Regulatory Decrees on the right to a second medical opinion, maximum waiting times for diagnostic tests, primary care and mental health services.

Baleares

In Baleares, a new Health Plan is in the development phase. For this reason, in 2008 a project called the Health System Diagnosis was undertaken. The resulting document brings together a situation analysis, an assessment of the actions taken under the previous Health Plan and a starting point for the next Plan.

Priority has also been given to the action plan against drug dependence and addictions, which includes actions to combat smoking and alcohol-related problems.

The Health Service has created a strategic plan for 2008-2011 that has 25 lines of action working towards the consolidation of the Health Service, innovation in management and the improvement of the service provided to citizens.

In 2008 this region has been working on its plan for action in the social health sphere of the Health Service. The purpose of this plan is to define the resources and establish the appropriate circuits by which to respond to the needs existing in this area. Additionally, the public enterprise that manages social health care and mental health services (GESMA) has drawn up its own Strategic Plan 2008-2011 with the participation of over 400 professionals.

Canarias

The second Canarias Health Plan 2004-2008 has guided health care policy in this autonomous community in recent years. The evaluation of this plan has served as the starting point for developing the third Canarias Health Plan 2009-2014, which is in the final drafting stage. The new plan focuses on the challenges related to public health as well as on the challenges related to the organisation and financing of health services. The vision of the plan is to direct health management and the management of health care services simultaneously, seeking to change how services are managed so as to produce better outcomes and improved health for all.

Cantabria

The autonomous community of Cantabria bases its Health Plan on five strategic themes:

- Health care for people, more participative and of higher quality.
- Greater accessibility to the health care system.
- Sustained development of health policies.
- More support for health professionals as a key element in the system.
- Investment in infrastructure and constant improvement in organisational terms and in the services.
- Promotion of health research as a main objective, integrating it into and co-operating with the care settings.

The first strategic theme aims to increase citizen satisfaction by encouraging their participation in actions such as the Advisory Health Council of Cantabria. The second theme makes a priority of assessing and updating the legal provisions concerning maximum waiting periods. The third strategic theme covers actions related to the Women's Health Plan 2008-2011, the prevention of child obesity, the promotion of breastfeeding, mental health, palliative care, occupational health and drug dependence, among others.

The most relevant action in human resources is no doubt the enactment of a law concerning the statutory employees of the Cantabrian health care institutions.

In the area of infrastructure, Cantabria's projects include an investment plan by which to broaden and improve the benefit package available in the region's health care facilities. Health research will take place through the Marqués de Valdecilla Foundation and through the creation of a campus in Valdecilla.

Castilla-La Mancha

The Ministry of Health of Castilla-La Mancha has made public health the central theme of its plans and programmes. As its planning instrument it uses

the Health Plan 2001-2010, which provides for actions in public health, health care and social health care, and it defines the commitments and obligations of the various institutions with responsibilities in the field of health.

In addition to the Health Plan, the following specific plans are in effect, each focusing on different priorities of the regional health care system:

- Plan on smoking prevention and treatment 2003-2010.
- Plan to combat alcoholism and drug dependence 2006-2010.
- Comprehensive Plan on diabetes mellitus 2007-2010.
- Mental Health Plan 2005-2010.
- Oncological Plan 2007-2010.
- Health Sciences Research Plan 2008-2010.
- Quality Plan for the Castilla-La Mancha Health Service 2002-2008.
- Plan to prevent child obesity with the help of dispensing pharmacies.
- II Volunteer Plan.
- II Plan on caring for the elderly.

Castilla y León

The third Health Plan of Castilla y León was adopted on 30 October 2008. The objectives of the plan are the following: to reduce mortality from preventable causes, to continue raising life expectancy, to prevent and reduce the appearance of illnesses, especially chronic illnesses, to create the conditions necessary for all citizens to enjoy a healthier life and to extend the initiatives which have produced the best results to the entire health care system. The plan focuses its attention on specific problems in which it can intervene, such as cardiovascular diseases, diabetes, traffic accidents, occupational health and food security, among others.

The plan calls for development of new health strategies in cancer, ischaemic heart disease, stroke, mental health, geriatric health care, diabetes, palliative care and comprehensive care for women, among others.

Cataluña

The most important instruments used by the Health Department of Cataluña in health care planning are the Catalonian Health Plan 2006-2010; the Map of Health Care, Social Health Care and Public Health in Cataluña; master plans; and strategic plans.

The Health Plan emphasises the importance of health determinants and its aim is to reduce health inequalities due to differences in sex, social class or territory. Through its strategic themes, the Health Plan constitutes a key instrument in tackling the new challenges posed by the system: it defends the importance of preventive actions and social care; it prioritises the intersectoral approach, quality dimensions and the safety of the services, professionals and citizens; it fosters co-ordinated teamwork at the territorial level; and it sets

objectives and expectations regarding results that are subject to accountability. In addition, the process of creating the Plan is in itself an exercise in participation and commitment by institutions, professionals and citizens. The Health Care Map highlights the need to synchronise health planning with the planning of services. To achieve this aim, it places great importance on territorial divisions, based upon the new organisational scheme of the health system in Cataluña: territorial health governments, using population-based criteria for the distribution of services. The idea is to improve the accessibility of health services to the population, improving the quality and efficiency of the care provided and obtaining greater citizen satisfaction.

These two instruments, the Health Plan and the Health Care Map are complemented by master plans and strategic plans. The master plans address diseases of the circulatory system, oncology, social health care, mental health, addictions, immigration and health issues, and rheumatic diseases.

The most important strategic plans are the ones concerning the organisation of paediatric care in primary care services, nephrologic care, specialised care, maternal and child health, sexual and reproductive health, the organisation of care for patients with severe polytrauma and diagnostic imaging.

Extremadura

The Extremadura Health Plan is the main tool in health care planning in this autonomous community. In 2008 efforts were directed towards monitoring and evaluating the Extremadura Health Plan 2005-2008 and towards creating the new Plan for the 2009-2012 period. The Plan provides for the development of specific programmes and actions, including the Strategic Plan for the Extremadura Health Service 2005-2008. Other transversal plans and programmes already underway are the framework plans, health promotion and prevention programmes, care related programmes and non-care related programmes, food security programmes, zoonoses programmes and environmental health programmes. All of them highlight the importance of comprehensive and ongoing care and they are all subject to regular monitoring.

Of special importance among the framework plans already in place are the ones on drug dependence and addictive conducts, social health care, health education, cardiovascular disease, cancer, humanisation of the public health care system, diabetes, mental health, quality and training in the health sciences.

The health promotion and prevention programmes cover such areas as child and adolescent health, smoking prevention, child and adolescent immunisation, adult vaccination, HIV/AIDS prevention, breast and cervical cancer prevention, prevention of endocrine-metabolic diseases, hypoacusia in newborns and the prevention of endemic goitre.

The care related programmes include palliative care, evaluation and treatment of pain, oral/dental health (consisting of specific coverage plans for pregnant women, children and the disabled), oral anticoagulant therapy, radiological examination of children and screening for familial hypercholesterolaemia.

Non-care related programmes include the following: sign-language interpretation service in health care settings; residential facilities for family members of hospitalised patients; the Company Programme for patients who receive treatment outside of Extremadura; improved signage in centres and services; plans to remodel and adapt buildings to improve their physical accessibility.

The zoonoses programmes consist of activities to combat brucellosis and hydatidosis and the surveillance and control of spongiform encephalopathy. The programmes related to environmental health consist of the sanitary control of water supplies, swimming pools, legionellosis, pesticides, and other activities.

Murcia

In the autonomous community of Murcia, in addition to the construction of three new hospitals by the public enterprise GISCARMSA, the following plans and programmes in the area of mental health are especially relevant: mental health care for adults, children and adolescents, attention to drug dependence, rehabilitation and reinsertion, and hospitalisation.

Navarra

The Health Plan of Navarra 2006-2012 has defined itself as a citizen-oriented plan that intends to improve the quality of care provided to citizens and increase citizens' rights. The plan focuses its attention on the care given in the priority processes and on emerging processes in the public health sphere. The Plan also addresses organisational aspects and relations between the system's agents: directors, managers and professionals.

In Navarra there are also plans underway to combat smoking and to raise awareness regarding occupational health.

País Vasco

The Euskadi Health Plan 2002-2010 gives priority to intervention in the areas of healthy lifestyles; non-transmissible diseases; social inequalities in health; transmissible diseases in target groups; and to the settings approach to health promotion, in such contexts as the environment, the workplace and schools. The Plan features a multisectoral design and it addresses multiple issues besides health.

The Plan's primary lines of action focus on monitoring lifestyles and defining the quality criteria to be used in the care processes with the greatest epidemiological impact. In care terms, this strategy takes concrete form in the Plan of Programmed Activities, which is included in the Priority Service Package and records indicators related to high blood pressure, asthma, COPD, mental health, palliative care, children's health and reproductive and sexual health. The most significant achievements of 2008 include the following:

Preparation of the new Priority Service Package in primary care was finished. Great effort was made to include activities based on scientific evidence and to exclude those that do not bring a clear benefit to the patient.

Cancer, acute myocardial infarction, stroke, COPD and schizophrenia have been included as singular processes in the hospitals' contract-programmes. Palliative care and neurological rehabilitation have been incorporated as complementary obligations.

In addition, activities have continued in the early detection of breast cancer and in cervical cancer screening. Implementation of the Palliative Care Plan continues and is now being applied in the three provinces that make up this autonomous community.

Rioja

Rioja is currently preparing its new Health Plan, the objectives of which are to improve the population's health status, diminish premature and preventable morbidity and mortality, reduce inequalities in health and combat incapacity. This Health Plan is the first to be drawn up following the 2001 transfer to the autonomous government of full powers in health care (previously held by INSALUD, the body in charge of health services during the devolution process). The Health Plan will pay special attention to competencies in primary and specialised care, and also to the new facilities now operating in the region.

National Institute of Health Management

The National Institute of Health Management (INGESA) is responsible for providing health care services in the cities of Ceuta and Melilla, although the autonomous cities themselves hold powers in the area of public health. INGESA uses management contracts to convey to the directors and professionals the actions needed to reach the objectives of the National Health Strategies, through the service package and special programmes. The special programmes consist of the following: care for oncological processes, cardiovascular diseases, maternal and child health and the palliative care strategy.

In 2008 the Health Plan of the city of Ceuta was adopted and it will be in effect until 2011. The objectives and lines of action cover the main health problems, social health care resources, lifestyles and the environment.

2.3 Health care expenditure

Expenditure as a measure of the resources applied to the health care system has been widely used to put the economic dimensions of health care into figures. It is also a key indicator for understanding the evolution and structure of the sector, which is subject to continuous pressure, not only due to the ageing of the population but also as a result of the major advances taking place in science and technology.

The total expenditure of the health care system in Spain, understood as the sum of private and public care resources, amounted to €88,827 million.[5] This represents 8.5 percent of the gross domestic product (GDP) and of it, 6.1 percent was financed with public resources and 2.4 percent with private resources.

Table 2.2. Evolution of health care expenditure and gross domestic product (GDP)

	2003	2004	2005	2006	2007
Public expenditure on health	44,938	48,581	53,127	58,466	63,768
Private expenditure on health	18,853	20,287	22,144	23,598	25,060
Total expenditure	**63,791**	**68,869**	**75,271**	**82,064**	**88,828**
GDP	782,929	841,042	908,792	982,303	1,050,595

Notes: Figures in millions of Euros

Source: Sub-Directorate General of Economic Analysis and the Cohesion Fund of the Ministry of Health and Social Policy. National Statistics Institute

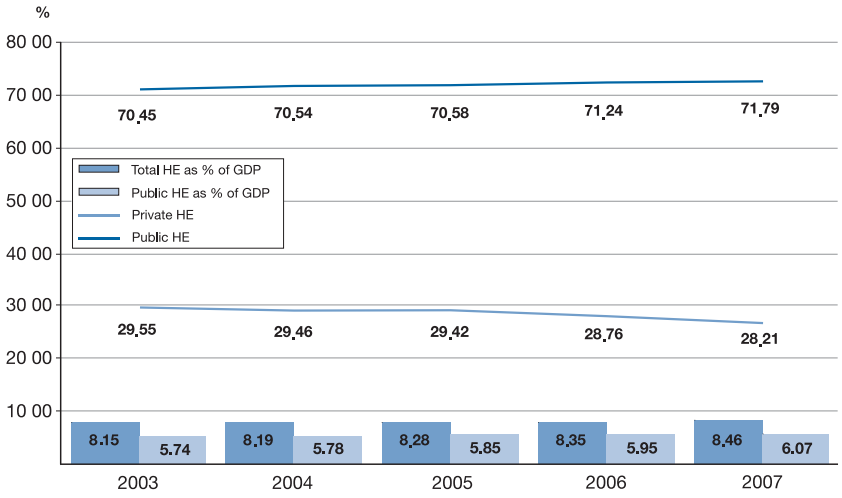
5 The estimated expenditure has been calculated by the Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy (MSPS), in accordance with the methodological framework established in the OECD's System of Health Accounts (SHA), and these figures are included by this organisation in its annual publication Eco-Health, along with the joint questionnaire by Eurostat, OECD and WHO.

It must be pointed out that the SHA incorporates in the long-term care function not just strictly health-related care for dependent persons, but also what is known as the personal care needed to carry out basic activities of daily life.

This nuance differentiates the methodology used in the Public Expenditure on Health Statistical Report of the MSPS from the OECD's System of Health Accounts, and therefore the expenditures in long-term care no doubt represent the most important distinguishing element between the two series, and that with the greatest impact on results.

The average annual growth of health expenditure during the 2003-2007 period was 8.6%. The public expenditure rose by 9.1%, while private expenditure showed less intense growth, with an annual average of 7.4%. During the same period GDP growth was an annual average of 7.6%, lower than the growth seen in both the total and the public expenditure on health, which means that the share of both of these figures in the GDP has shown an increase calculated at 0.33 and 0.31 percentage points respectively.

Figure 2.1. Composition of health expenditure. 2003-2007



Notes: Percentages of total expenditure on health and of gross domestic product (GDP)

Source: Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy. National Statistics Institute

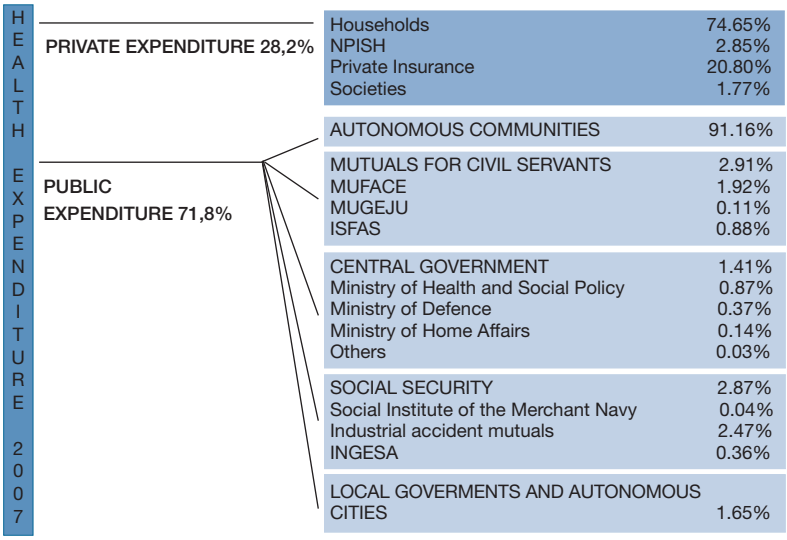
As a consequence of these growth differentials in the period analysed, the share of public expenditure on health in the total health expenditure grew from 70.45% to 71.79%.

The following diagram shows the weight that the different actors and financing agents have in the health care system. In the public health care sector autonomous communities are responsible for 91.16% of the total expenditure, so their pace of growth marks the system's overall evolution. Their average annual growth rate in the period 2003-2007 was 9.4%. Non-regional agents (central government, the Social Security system and Insurance Mutuals for civil servants) represent 7.2 percent of the expenditure, although this set of agents shows somewhat mixed behaviour

during this period, probably due to the implementation of specific financing measures at different times.

With regard to private expenditure on health, it is households that bear the greatest burden, with a share of 74.65%, although the most dynamic sector during the period analysed was that of private insurance companies, which went from financing 18.92% of the total private expenditure in 2003 to 20.80% in 2007. The explanation for this increase is found to a large extent in the growing number of group policies purchased by companies.

Figure 2.2. Composition of health expenditure. 2007



Source: Public Expenditure on Health Statistical Report and the System of Health Accounts. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy. National Statistics Institute

Finally, still using the expenditure estimates made in keeping with the classifications and boundaries of the System of Health Accounts,[6] the following chart shows the different expenditure structures by health care service providers in each of the large financing sectors: public and private.

6 See footnote 1.

Table 2.3. Distribution of health care expenditure by providers and financers

	HF1 Public Administrations	HF2 Private Sector	Total current expenditure
HP.1- Hospitals	50.95	9.25	38.8
HP.2- Nursing and residential care facilities	4.76	6.41	4.8
HP.3- Ambulatory care providers	20.44	50.01	28.9
HP.4- Providers of medical goods	19.77	27.84	22.7
HP.5- Provision and admin. of public health programmes	1.36	0.47	1.0
HP.6- General health administration and insurance	2.27	6.01	3.4
HP.7- Other industries	0.44	0.02	0.4
HP.9- Rest of the world	0.01	0.00	0.0
Total expenditure	100.00	100.00	100.0

Notes: Percentage of each provider in total expenditure of the financing agents
Source: SHA Joint Questionnaire 2009, OECD, Eurostat and WHO

In the public sector the expenditure on hospitals is 2.5 times the expenditure on ambulatory care providers, while in the private sector the relationship is the opposite, as private expenditure on hospitals is just one fifth of that going to ambulatory services. Nonetheless, to assess the weight of private hospitals in the system, it must be pointed out that 65% of the health care services provided in private hospitals are being financed by the public sector through long-term contracts. Thus, the importance of private hospitals as a productive sector is higher than that which might be deduced by reading Table 2.3.

With regard to ambulatory care providers, a distinguishing feature between the two financing schemes must be pointed out; in the public sector it is first level care that predominates, based on the SNS health centres, while in the private sector it is dental and specialised consultations that generate 78% of the total expenditure on ambulatory care providers.

For purposes of analysing the expenditure from the economic and budgetary perspective and taking into account the health functions to which the expenditure responds, as well as its distribution among autonomous communities, it has been considered more appropriate to use Public Expenditure on Health Statistical Report[7] data. Therefore, as discussed above,[8] long-term care costs are not considered, since they do not fall within the range of health services provided by the autonomous communities.

7 EGSP. Public Expenditure on Health Statistical Report. Ministry of Health and Social Policy.

8 See footnote 1.

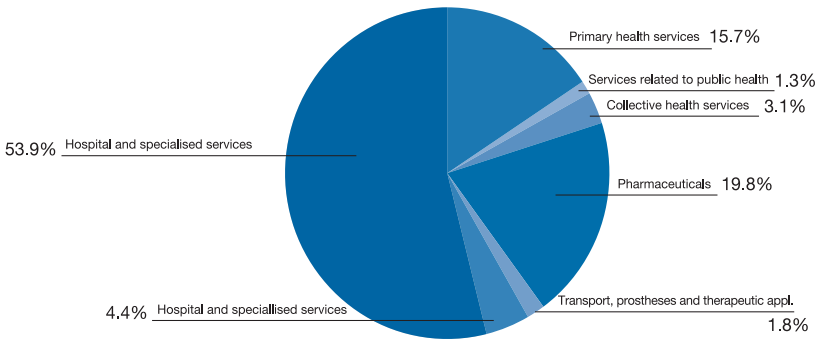
Table 2.4. Public sector health expenditure 2003-2007. Functional classification in thousands of € *

FUNCTIONAL CLASSIFICATION	2003	2004	2005	2006**	2007**
Hospital and specialised services	22,502,542	24,576,854	27,004,400	30,043,254	32,461,672
Primary health care services	6,561,856	7,148,588	7,824,212	8,443,846	9,420,327
Services related to public health	491,616	572,054	630,734	737,797	811,348
Collective health services	1,373,673	1,320,176	1,486,662	1,644,236	1,848,441
Pharmaceuticals	9,611,402	10,152,795	10,757,586	11,303,003	11,901,950
Transport, prostheses and therapeutic appl	694,624	767,875	799,382	971,365	1,076,411
Capital expenditure	1,721,175	1,810,339	2,083,862	2,538,557	2,668,925
CONSOLIDATED TOTAL	42,956,889	46,348,681	50,586,839	55,682,059	60,189,073

Notes: *Expenditure on long-term care is not considered
**These figures (thousands of Euros) are provisional and subject to revision
Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

The function with the most weight within public sector health care is that of hospitals and specialised services, which in 2007 reached 53.9 percent of the total consolidated expenditure. Next in importance comes expenditure on pharmaceuticals, with 19.8%, and then primary care, with 15.7% of the total.

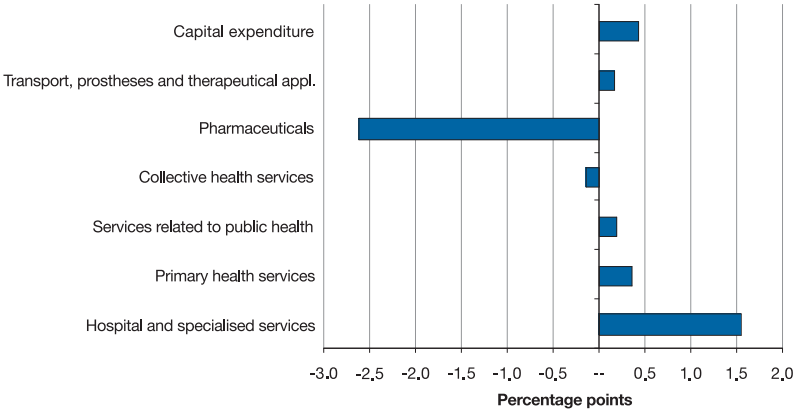
Figure 2.3. Public sector health expenditure 2007. Functional distribution



Notes: Percentage distribution
Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

These care functions (which represent 89.4% of the total expenditure) show uneven behaviour during the 2003-2007 period. Hospital and specialised services were the most dynamic, with an increase of 1.5 percentage points, moving from 52.4% to 53.9% of the total expenditure. In contrast, expenditure on pharmaceuticals shows the opposite tendency, with a decline of 2.6 percentage points, putting this type of expenditure at 19.8% of the total. Primary health care services represent 15.7% of the expenditure in 2007, which represents a slight increase in this function's share in the total.

Figure 2.4. Public sector health expenditure 2003-2007. Variations in functional distribution



Notes: Differences in percentage points

Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

An analysis from the perspective of economic classification shows that it is the remuneration of personnel that absorbs the greatest percentage of the total expenditure. In 2007 this kind of expenditure came to a total of €27,307 million.

Table 2.5. Public expenditure on health 2003-2007. Economic classification

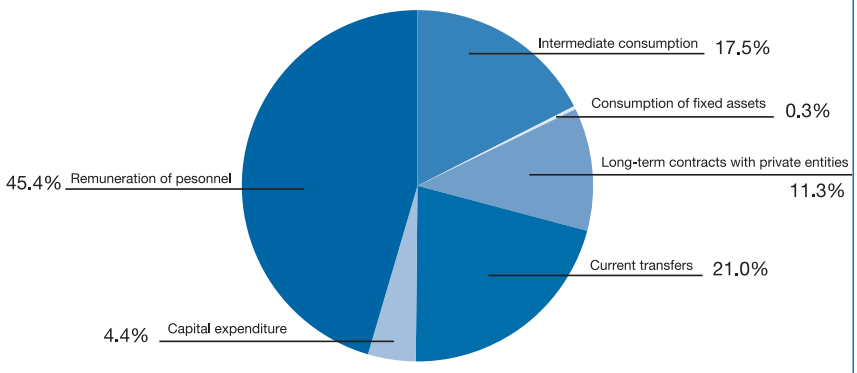
	2003	2004	2005	2006 *	2007 **
Remuneration of personnel	17,915,439	19,369,266	20,831,638	24,317,253	27,306,655
Intermediate consumption	7,922,989	8,696,612	9,791,409	10,247,863	10,559,264
Consumption of fixed assets	108,542	118,476	373,085	174,174	196,941
Long-term contracts with priv entities	5,165,076	5,643,187	6,067,566	6,394,298	6,796,993
Current transfers	10,123,667	10,710,802	11,439,279	12,009,913	12,660,295
Capital expenditure	1,721,175	1,810,339	2,083,862	2,538,557	2,668,925
CONSOLIDATED TOTAL	42,956,889	46,348,681	50,586,839	55,682,059	60,189,073

Notes: *These figures (thousands of Euros) are provisional and subject to revision
**These figures (thousands of Euros) are provisional and subject to revision. Liquidation of Local Corporations and of Ceuta and Melilla is provisional

Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

Forty-five percent of the public sector health expenditure goes to remuneration of the sector's workers; next in importance, at 21% of the total amount, are expenditures on current transfers, of which 94% goes to medical prescriptions; expenditure on intermediate consumption, at 17.5%, and expenditure in purchases from the private sector through long-term contracts, which represents 11.3% of the public sector health expenditure.

Figure 2.5. Public sector health expenditure 2007. Economic distribution

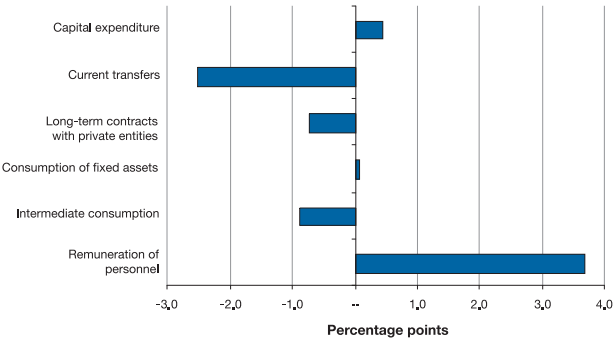


Notes: Percentage distribution

Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

Setting aside the behaviour of capital expenditures, both capital consumption (because it is difficult to estimate) and capital investment (because it is highly seasonal and variable), an analysis of outlays in the 2003-2007 period reveals that expenditure on the remuneration of workers shows the highest rate of growth, at 11.1%, followed by the expenditure on intermediate consumption, at 7.4% and the expenditure on long-term contracts with private entities, at 7.1%. As a consequence of these different rates of growth, expenditures on remunerations have seen their weight in the total expenditure increase by 3.7 percentage points, mainly at the expense of current transfers, which have fallen 2.5 percentage points, and of long-term contract costs, which have fallen 0.7 points.

Figure 2.6. Public sector health expenditure 2003-2007. Variations in economic distribution



Notes: Differences in percentage points

Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

Table 2.6 shows, with data from the Public Expenditure on Health Statistical Report, the consolidated health care expenditure of the autonomous communities in the 2003-2007 period, as well as the average rates of growth during this period. In terms of total expenditure, which includes capital expenditure, the highest growth is seen in Rioja, at 19%, due to the great investment effort made by this autonomous community with respect to its level of current costs. Murcia, Baleares, Castilla-La Mancha and Madrid are the most dynamic regions, while Asturias, Castilla y León and Cantabria have shown a lower average rate of growth.

If the analysis is performed in terms of current costs, without taking into account capital expenditure, it is Murcia that shows the greatest increase during this period - 12.18% - with the autonomous communities mentioned in the preceding paragraph remaining the most and least dynamic.

Table 2.6. Consolidated public sector health expenditure by autonomous communities

	2003	2004	2005	2006	2007	AAR
Andalucía	6,450,192	7,025,753	7,539,191	8,339,228	8,867,511	8.3
Aragón	1,230,313	1,368,430	1,441,258	1,589,130	1,738,781	9.0
Asturias	1,102,532	1,178,919	1,253,681	1,339,114	1,423,253	6.6
Baleares	799,363	874,479	1,064,151	1,077,552	1,209,518	10.9
Canarias	1,793,534	1,896,751	2,148,011	2,317,742	2,508,912	6.7
Cantabria	611,281	660,908	718,122	766,157	825,218	7.8
Castilla y León	2,369,489	2,532,688	2,752,846	3,164,216	3,073,042	6.7
Castilla-La Mancha	1,607,100	1,614,193	2,073,055	2,354,915	2,425,780	10.8
Cataluña	6,260,653	6,555,858	7,140,233	8,070,644	8,961,582	9.4
Comunidad Valenciana	3,930,856	4,242,076	4,718,251	5,119,756	5,589,768	9.2
Extremadura	1,059,068	1,133,799	1,223,321	1,348,811	1,526,277	9.6
Galicia	2,547,871	2,827,233	2,930,798	3,231,003	3,452,597	7.9
Madrid	4,601,404	5,265,938	5,686,537	6,139,263	6,777,571	10.2
Murcia	1,153,836	1,284,084	1,425,846	1,566,505	1,755,530	11.1
Navarra	610,205	661,838	694,066	753,309	826,706	7.9
País Vasco	2,160,636	2,308,590	2,529,603	2,702,510	3,017,810	8.7
Rioja	272,795	311,161	353,875	455,874	556,373	19.5

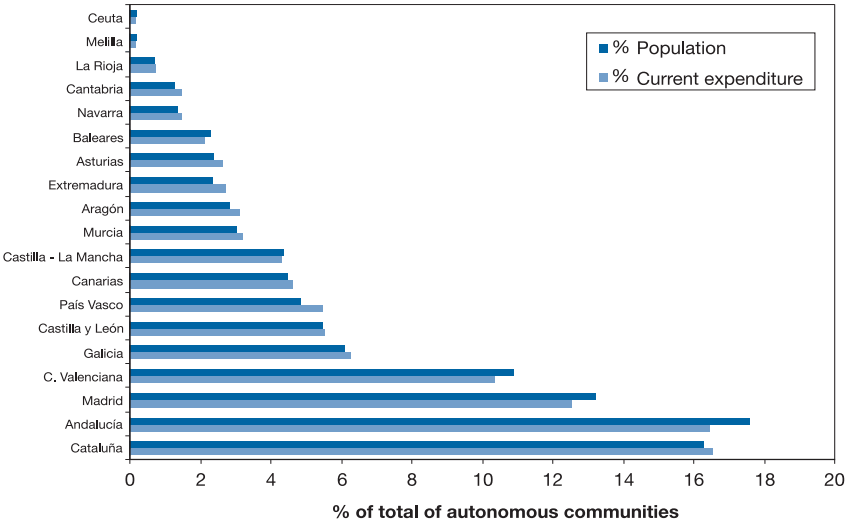
Notes: Figures in thousands of Euros

Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

According to 2007 data, 41.5% of the public sector health expenditure was originated by the autonomous communities of Andalucía, Cataluña and Madrid, with €8,868 million, €8,962 million and €6,777 million respectively. These communities account for 47% of the population in Spain. Rioja, Cantabria and Navarra are the autonomous communities with the smallest expenditure in absolute values.

Figure 2.7 shows the weights of current expenditure and the population of each autonomous community in relation to the totals of both variables. The differences between the two indicators for each of the autonomous communities reflect not only the varying degrees of financial effort made in health care but also, to a large extent, the different realities in terms of population and geography that the autonomous communities face, such as differences in age and dispersion, among others.

Figure 2.7. Percentages of population and public sector health expenditure



Notes: Percentages of each community in the total of all the autonomous communities

Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

Thus, Andalucía, with 17.61% of the population, accounts for 16.44% of the expenditure. Madrid, Valencia and Baleares also have a share of the country's population greater than their share of expenditure. For the rest of the autonomous communities, the situation is the opposite, with País Vasco, Extremadura and Aragón being the regions with the most pronounced differences.

A better understanding of the distribution of the public expenditure on health among the autonomous communities and an analysis of the importance of the expenditure within each of the regional economies can be achieved by looking at the health expenditure as a share of the GDP indicator, although it must be remembered that while income elasticity is greater than one in an overall analysis of expenditure by countries - suggesting that more income will mean more health expenditure - this is not the case when the same indicator is analysed at the regional level. As pointed out in the report on health expenditure analysis carried out by the working group formed at the I Conference of Presidents of the Autonomous Communities:[9] "The data obtained on health expenditure by

9 Institute of Fiscal Studies. Ministry of Economics and Finance. Ministry of Health and Consumer Affairs. September 2007.

autonomous community as a percentage of the GDP do not reflect the usual relationship with the level of income. In this case differences among territories are not explained only by differences in income levels (as occurs between countries) but also by solidarity between territories." This is true because the allocation of resources among the autonomous communities provides for levelling mechanisms that attempt to guarantee the system's equity.

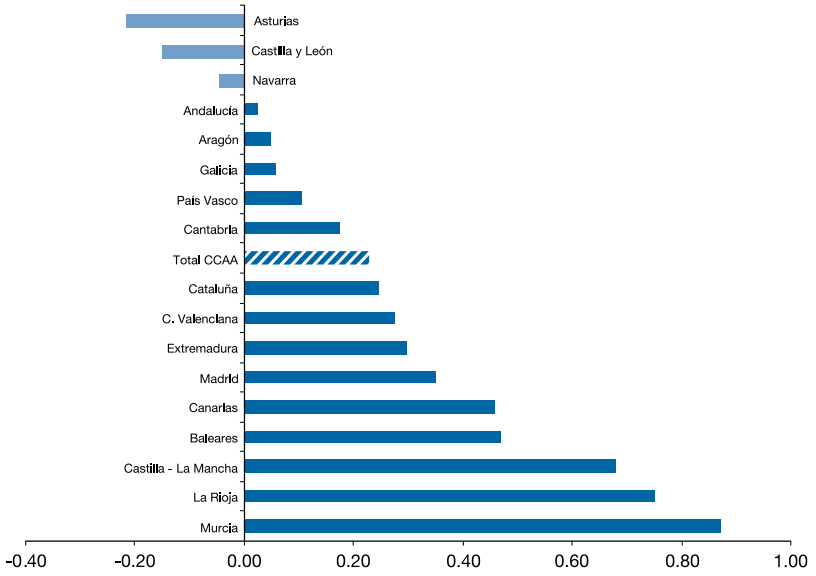
Table 2.7. Public sector health expenditure by autonomous communities as percentage of gross domestic product (GDP)

	% Autonomous comunity expenditure of GDP			% Autonomous comunity expenditure of GDP	
	2003	2007		2003	2007
Andalucía	6.05	6.12	Comunidad Valenciana	5.16	5.46
Aragón	5.06	5.28	Extremadura	8.15	8.81
Asturias	6.54	6.23	Galicia	6.39	6.41
Baleares	4.08	4.64	Madrid	3.32	3.65
Canarias	5.59	6.01	Murcia	5.86	6.53
Cantabria	6.28	6.21	Navarra	4.59	4.66
Castilla – León	5.57	5.44	País Vasco	4.49	4.65
Castilla – La Mancha	6.05	6.80	Rioja	4.65	7.16
Cataluña	4.25	4.56	ACs average	4.76	5.21

Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy. National Statistics Institute

The autonomous communities of Extremadura (8.81%), Castilla-La Mancha (6.8%) and Murcia (6.5%) are the ones showing the highest percentage of health care expenditure with respect to the GDP. Madrid (3.6%) and Cataluña (4.6%) are situated in the other extreme.

Figure 2.8. Variations 2003-2007 in share of public current expenditure on health in the gross domestic product (GDP)



Notes: Differences in percentage points
Source: Public Expenditure on Health Statistical Report. Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy. National Statistics Institute

2.4 The Health Cohesion Fund

The Health Cohesion Fund was created by Law 21/2001, of 27 December 2001, which regulates the fiscal and administrative measures of the autonomous community financing system. Its purpose is to guarantee equal access to public sector health services throughout Spain and also to ensure care for citizens from other European Union countries or from countries with which Spain has reciprocal health care accords.

Management of the Fund was initially regulated by Royal Decree 1247/2002, of 3 December 2002, which established the criteria and procedures for compensation to autonomous communities in exchange for the health services they provided to residents of other autonomous communities within Spain and also to foreign patients living in or visiting Spain temporarily and who are entitled to health care services. Also established was a series of hospital and ambulatory processes that were to be financed, because it was deemed that the complexity of these processes was such that some

autonomous communities lacked the necessary hospital services or that such services were insufficient for attending the population within their territory. Distribution of the Health Cohesion Fund among the autonomous communities was based on these criteria during the 2002-2005 period.

Law 16/2003, of 28 May 2003, on the Cohesion and Quality of the SNS, with regard to the quality guarantee policy aiming to rationalise the organisation of health care services and increase system efficiency, introduced regulations concerning the services to be provided at SNS Reference Facilities and established that the Inter-territorial Council of the SNS – using a joint planning approach – would be the body to designate such services, and that they would be financed through the Health Cohesion Fund.

Subsequently, in October of 2006, a new decree was published to regulate the management of the Health Cohesion Fund (RD 1207/2006). This decree brings together the guidelines established in the aforementioned Law, at the Conference of Presidents held on 10 September 2005 and at the Financial and Fiscal Policy Council held on 13 September 2005.

The most important new features of this Royal Decree - which is now in effect - as compared to the previous one, are the following:

- The list of compensable hospital and ambulatory processes was updated, taking into account the technological innovation that has occurred in recent years and also the inclusion of the SNS Reference Facilities in the financing.
- Coverage of the cost of hospital and ambulatory processes to be financed was increased from 40% to 80%.
- Compensation was introduced for processes attended in the SNS Reference Facilities approved by the Interterritorial Council of the SNS.

These modifications are shown in the following Table 2.8 on the evolution of Health Cohesion Fund distribution.

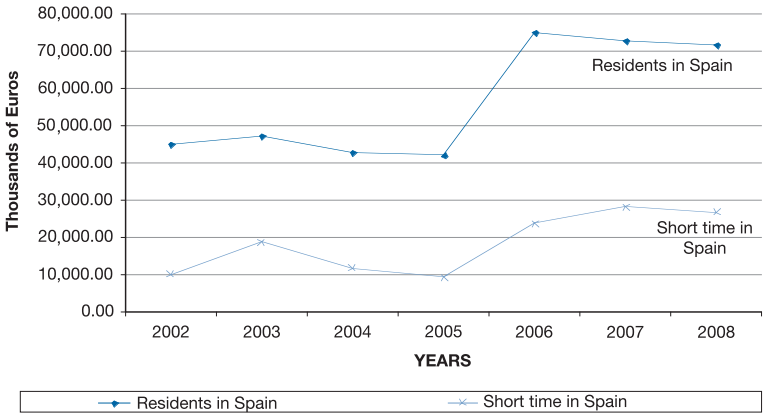
Table 2.8. Distribution of the Health Cohesion Fund (HCF). 2002-2008

	HCF distribution under RD 1247/2002 of 3 December				% autonomous community expenditure of GDP		
	2002	2003	2004	2005	2006	2007	2008
Residents of Spain	45,193	47,482	43,158	42,203	75,237	72,966	71,975
People in Spain a short time	10,375	18,877	12,077	9,472	23,794	28,384	27,069

Notes: Figures in thousands of Euros
Source: Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

The item referring to compensation for health services provided to patients who live in Spain but who receive care in a different autonomous community undergoes rapid growth starting in 2006, as a consequence of the enactment of Royal Decree 1207/2006, currently still in effect. However, the increase in the item referring to compensation for health care provided to insured people who are in Spain for a short time and who are entitled to care at the expense of another state can be attributed to improved management systems in international invoicing (real cost).

Figura 2.9. Distribution of Health Cohesion Fund (HCF). 2002-2008



Notes: Figures in thousands of Euros

Source: Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

Table 2.9. Distribution of Health Cohesion Fund. Residents of Spain treated in a different autonomous communitiy

	HCF distribution under RD 1247/2002 of 3 December				HCF distribution under RD 1207/2006 of 20 October		
	2002	2003	2004	2005	2006	2007	2008
Andalucía			72	12	1,229	2,091	
Asturias	3	36	-20	20			
Cantabria	3,443	3,671	4,165	4,126	6,425	5,584	8,071
Castilla-La Mancha			339				
Cataluña	8,381	9,840	7,377	8,905	13,126	14,095	22,111
Comunidad Valenciana	2,117	629	650	628	1,548		4,315
Galicia			28				
Madrid	31,176	31,611	30,894	27,642	52,910	50,947	37,477
Murcia		988	-409	291			
País Vasco	73	706	62	580		250	
TOTAL	45,193	47,482	43,158	42,203	75,237	72,966	71,975

Notes: Figures in thousands of Euros
Negative figures correspond to adjustment of preceding year's liquidation
Source: Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

Table 2.9 shows the amounts and the autonomous communities that have received funding through the Health Cohesion Fund for the health care provided to patients who are residents of Spain but live in a different autonomous community. As shown, Madrid, Cataluña and Cantabria are the autonomous communities that have received the highest amount of compensation, and the evolution in the amount received has remained constant; they are followed by the Comunidad Valenciana and Andalucía, which show a less constant evolution.

Table 2.10 shows the distribution among the autonomous communities of the positive balance at the national level resulting from the amount received by Spain for the health services it provided to citizens insured by other countries, and the amount paid by Spain for the health services provided in other countries to citizens who are insured in Spain.

Table 2.10. Distribution of the Health Cohesion Fund. People in Spain temporarily and insured by another country

	HCF distribution under RD 1247/2002 of 3 December				HCF distribution under RD 1207/2006 of 20 October		
	2002	2003	2004	2005	2006	2007	2008
Andalucía	1,460	1,404	515	379	395	6,358	13,006
Aragón	260	311	157	82			
Asturias	233	477	218	112	10	199	49
Baleares	1,482	1,975	1,653	872	3,103	3,520	2,680
Canarias	943	3,634	908	1,417	9,221	3,747	2,809
Cantabria	111	168	399	99	180	142	137
Castilla y León	459	809	475	267			
Castilla-La Mancha	94	113	93	45			
Cataluña	1,825	2,747	2,267	905			
Comunidad Valenciana	349	2,660	2,865	4,151	7,011	10,162	4,841
Extremadura	173	378	144	76	422	255	677
Galicia	1,448	1,891	1,119	662	1,761	2,044	1,873
Madrid	215	876	198	80			
Murcia	882	506	629	111	1,691	1,959	990
Navarra	127	187	85	53			
País Vasco	280	696	330	150			
Rioja	25	12	8	3			
Ceuta	4	7	7	3			6
Melilla	3	29	8	4			
TOTAL	10,375	18,877	12,077	9,472	23,794	28,384	27,069

Notes: Figures in thousands of Euros
Source: National Social Security Institute and Sub-Directorate General of Economic Analysis and Cohesion Fund of the Ministry of Health and Social Policy

As the table illustrates, the entry into force of the 2006 Royal Decree meant a change in the distribution criteria, as it required autonomous communities to present a positive balance between invoices issued to citizens insured in

another country (who receive care in Spain) and the amounts paid to other countries for the services received by insured people from that autonomous community while abroad. However, as mentioned above, the considerable increase seen in recent years is mainly the result of improved management instruments now used in the invoicing of services provided to foreign citizens by the autonomous communities.

3 Resources and Care Activity

3.1 Primary Care

The need for comprehensive information about the first level of care from the whole of the Spanish National Health System (hereinafter referred to as SNS, for its acronym in Spanish) prompted the Interterritorial Council of the SNS, at its meeting on 16 June 2004, to ask the Subcommission on Information Systems to begin the work necessary to bring about a "Primary Care Information System" (SIAP, for its acronym in Spanish) for the SNS.

In fulfilment of this mandate, the Subcommission decided to develop the said information system with the collaboration of an ad hoc working group, planning for a phased-in development process with progressive advances in accordance with the complexity (from lesser to greater) of the necessary data.

The consequence was the design, data collection and preparation of results pertaining to the information selected for the initial phase, which includes statistical data on:

- the structure and assignment of the population, in terms of both Health Care Area (or its equivalent) and type of professional, using the Individual Health Card database as the source of information.
- physical and human resources.
- various reports, such as the report on the general organisation of Primary Care, the range of services available and other functional aspects of the first level of care.

Following approval by the Interterritorial Council on 27 March 2006, SNS-wide data regarding the first level of care was published for the first time. Thus, a series of data is currently available on the topics indicated (population and resources) for the period 2004 to 2008, with the data updated annually.

In addition, the reports have been undergoing improvements, especially those addressing urgent care and mental health, and the directories of existing facilities are included in them. Also, the first Catalogue of Primary Care Centres of the SNS has been developed and published.

The statistical information is disaggregated for each of the autonomous communities and, within each one of them, for the different Health Care Areas comprising it. Complete data can be found through the website of the Spanish Ministry of Health and Social Policy.

In 2008 another expansion was undertaken, by means of an agreement for the compilation of SNS-wide data on the activities carried out, with

publication set for 2009. The statistical source used in this report is, in all cases, the Primary Care Information System, SIAP - MSPS.[1]

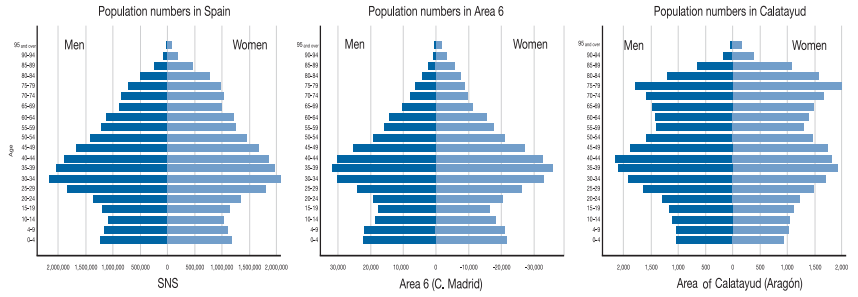
Structure of the protected population

The pyramid created with the population protected by the SNS (people with the Individual Health Card), as shown in Figure 3.1, reflects the Spanish population structure and, given the current model of coverage, coincides with the structure of the population as a whole.

The main value of having such information available is that it makes it possible to perform comparative analyses of the population pyramids of each Health Care Area, which in turn allows the diversity of the age composition of the population attended in each of them to be visualized. This represents an interesting sphere of analysis for the health sector and one not commonly found in demographic studies conducted on the national level.

Offers some examples, the information having been obtained from the 156 equivalent geographic-health divisions (Health Care Areas, zones, districts, etc.) into which Primary Care is organised and which conventionally have been used as units of analysis in the SIAP under the generic name "Health Care Area".

Figure 3.1. Some examples of the distribution of the population protected by the SNS



Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

As a result of the various adaptations that the different autonomous communities have made to the concept of Health Care Area (in order to

1 Primary Care Information System of the Spanish Ministry of Health and Social Policy http://www.msc.es/estadEstudios/estadisticas/estadisticas/estMinisterio/siap.htm

achieve, in practical terms, the concepts of physical accessibility, quality in clinical practice and efficiency in the allocation of resources, or in some cases, to implement certain management models), population sizes vary considerably among the Health Care Areas, as shown by the high dispersion of values (Table 3.1).

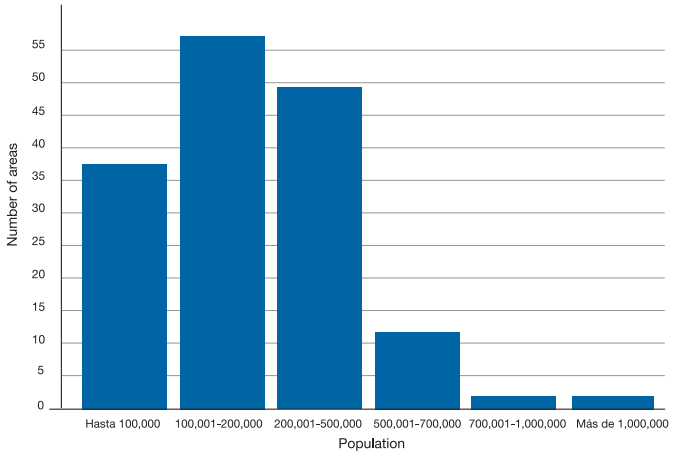
Table 3.1. Distribution of population by Health Care Area (maximum, mean and minimum values)

	POPULATION / AREA
MAXIMUM	4,306,489
MEAN	252,358
MINIMUM	8003

Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

The result of grouping the Health Care Areas into different population ranges is shown in Figure 3.2.

Figure 3.2. Health Care Areas by assigned population



Up to 100.000	100,001-250.000	250,001-500,000	500,001-750,000	750,001-1,000,000	Over 1,000,000
37	57	49	11	1	1

Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

Structural resources in Primary Care

This section deals with the number of Basic Health Zones into which care is organised territorially in each Health Care Area, and also the number of health centres and local health facilities where such care is provided. As mentioned in the preceding section, significant variability can be seen in the distribution of the structural resources in the Areas, essentially in accordance with their size and no doubt influenced by the level of dispersion[2] of the population (Table 3.2).

Table 3.2. Distribution of structural resources by Health Care Area (maximum, mean and minimum values)

	STRUCTURAL RESOURCES / AREA		
	BASIC HEALTH ZONES	HEALTH CENTRES	LOCAL HEALTH FACILITIES
MAXIMUM	211	230	594
MEAN	17	19	65
MINIMUM	1	2	0

Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

In general, Castilla y León and Castilla-La Mancha, because they have a high level of dispersion, are the communities with the highest number of local health facilities per Health Care Area. Standing out among the rest are the areas of Burgos, with 593, Guadalajara, with 416, and Salamanca, with 412 local health facilities. As for the health centres, it is interesting to note that, according to Cataluña's territorial organisation system, the health region of Barcelona is considered to be one Health Care Area, which means that with its 211 Basic Health Zones and 230 health centres it is the largest in the SNS, since the organisation parameters used do not coincide with those of the other autonomous communities.

2 Standardised data, with disaggregation by Health Care Area, is not currently available at the national level.

Disaggregated data by autonomous community are shown in Table 3.3.

Table 3.3. Distribution of structural resources by autonomous community

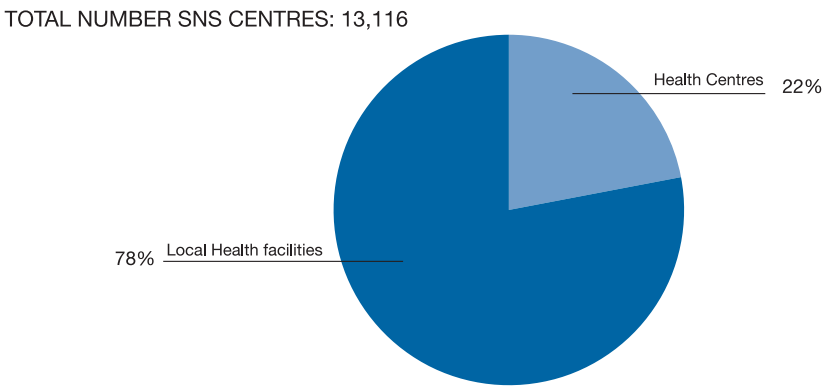
	STRUCTURAL RESOURCES			
	Health Care Areas	Basic Health Zones	Health Centres	Local Facilities
Andalucia	33	216	390	1112
Aragón	8	125	116	915
Asturias	8	84	68	150
Baleares	3	55	55	104
Canarias	7	109	109	160
Cantabria	4	40	38	134
Castilla y León	11	248	240	3647
Castilla-La Mancha	8	197	196	1115
Cataluña	7	358	407	827
Comunidad Valenciana	22	240	252	580
Extremadura	8	113	106	417
Galicia	7	315	389	96
Madrid	11	307	257	158
Murcia	6	85	76	189
Navarra	3	54	56	244
País Vasco	7	116	135	183
Rioja	1	19	19	171
Ceuta and Melilla	2	7	7	0
SNS	156	2688	2914	10,202

Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

The proportion of health centres to local health facilities is, on average, approximately 1 to 4, as seen in Figure 3.3. There is high variability by autonomous community, a situation greatly influenced by the number of existing towns and villages,[3] with Castilla y León having the highest number and ratio of the entire SNS.

3 Nomenclátor. List of cities, towns and villages maintained by the National Statistics Institute.

Figure 3.3. Proportion Health Centres/Local Health Facilities



Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

Human Resources

As of 31 December 2008, there were 61,559 health professionals working in family medicine, paediatrics and nursing in health centres and local health facilities. This figure does not include jobs devoted exclusively to urgent care or other modules, nor does it include positions that are not of a "care" nature, such as management and others.

Likewise, auxiliary administrative staff and other non health-related positions totalled 21,606 individuals.

The distribution of the said resources by autonomous community is shown in the following table, from the numerical perspective and also from the perspective of the "mean ratio" of population to each type of professional. This indicator is based upon the population with an individual health card who have been expressly assigned to each one of the professionals.[4]

4 Initially (in 2004 and 2005) only information about the positions in family medicine, paediatrics and nursing was compiled. Starting in 2006 non-health personnel was also included and in 2007 the data began to be broken down by sex, to determine the percentages of positions occupied by women.

Table 3.4. Distribution of human resources by autonomous community

	HUMAN RESOURCES							
	Family Medicine		Paediatrics		Nursing		Non-health personnel	
	Positions	Women	Positions	Women	Positions	Women	Positions	Women
Andalucia	4755	38	1110	61	4257	63	6096	61
Aragón	959	42	163	69	920	85	401	87
Asturias	657	49	128	64	707	87	420	85
Baleares	517	48	136	58	536	94	331	71
Canarias	1079	29	295	52	1118	65	653	75
Cantabria	365	46	73	70	376	86	211	83
Castilla y León	2379	49	301	57	2104	96	1153	79
Castilla-La Mancha	1382	40	239	65	1454	76	722	89
Cataluña	4270	-	993	-	4750	-	3154	-
Comunidad Valenciana	2632	42	738	64	2492	78	2634	73
Extremadura	803	37	132	58	886	66	440	63
Galicia	1845	44	360	62	1760	80	1110	69
Madrid	3509	66	867	73	3239	-	2418	-
Murcia	812	43	232	62	779	61	567	82
Navarra	370	-	95	-	437	-	250	-
País Vasco	1292	69	288	69	1334	98	886	83
Rioja	220	40	40	70	204	91	102	85
Ceuta and Melilla	67	34	25	52	80	84	58	62
SNS	27,911	47	6215	64	27,433	77	21,606	75

Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

Ratio of human resources to assigned population

The distribution of professionals among ranges of population with an individual health card can be summarised as follows:

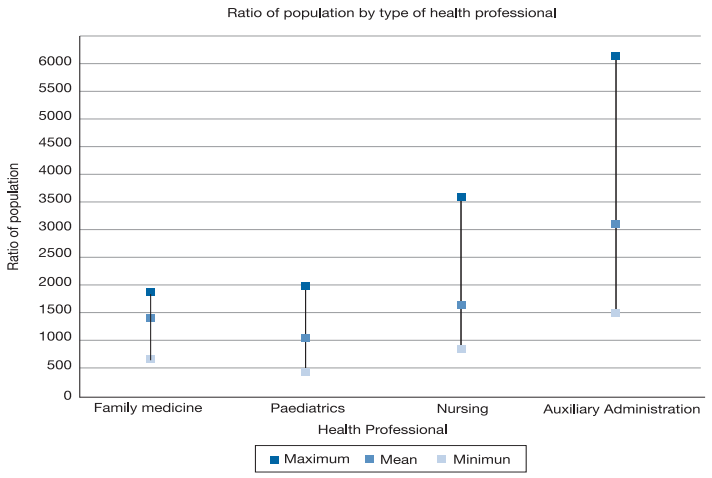
Table 3.5. Human resources and assigned population according to IHC database

NUMBER OF FAMILY MEDICINE POSITIONS PER RANGES OF ASSIGNED POPULATION				
< 500	501 - 1,000	1,001 - 1,500	1,501 - 2,000	> 2.000
1553	2307	7444	11,828	541

Notes: IHC: Individual Health Card
Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

These ratios vary according to the type of professional, depending on, among other factors, the differences in organisation between the autonomous communities (especially in terms of non-health personnel), as shown in Figure 3.4.

Figure 3.4. Population/Health Professional ratio



RATIOS BY TYPE OF PROFESSIONAL (HEALTH CARE AREA MEAN)				
	Family Medicine	Paediatrics	Nursing	Auxiliary Administration
MAXIMUN	1,865	1,982	3,583	6,142
MEAN	1,410	1,029	1,663	3,102
MINIMUM	667	419	874	1,476

Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

The distribution of the mean ratios in each of the autonomous communities is as follows:

Table 3.6. Distribution of the IHC population/existing professionals ratios

	Family Medicine	Paediatrics	Nursing	Auxiliary Admin
Andalucia	1442	1069	1890	2838
Aragón	1229	997	1458	4078
Asturias	1481	779	1516	3219
Baleares	1685	1059	1894	3691
Canarias	1519	974	1723	3568
Cantabria	1361	1035	1522	3407
Castilla y León	939	901	1165	3326
Castilla-La Mancha	1276	1041	1376	3379
Cataluña	1474	1180	1572	2575
Comunidad Valenciana	1555	994	1936	3080
Extremadura	1199	969	1218	3954
Galicia	1347	900	1574	2880
Madrid	1541	1044	1948	4006
Murcia	1470	972	1814	3633
Navarra	1418	977	1413	2470
País Vasco	1563	905	1709	2573
Rioja	1251	950	1535	4674
Ceuta and Melilla	1550	1068	1632	3957
SNS	1410	1029	1663	3102

Notes: IHC: Individual Health Card
Source: Spanish Ministry of Health and Social Policy. SIAP-SNS 2008

Training of professionals: Postgraduate training

To provide training for the 2111 graduates holding the positions offered in Family and Community Medicine in 2008, there are 162 teaching units with 759 teaching-accredited health centres (the main health centre of the Basic

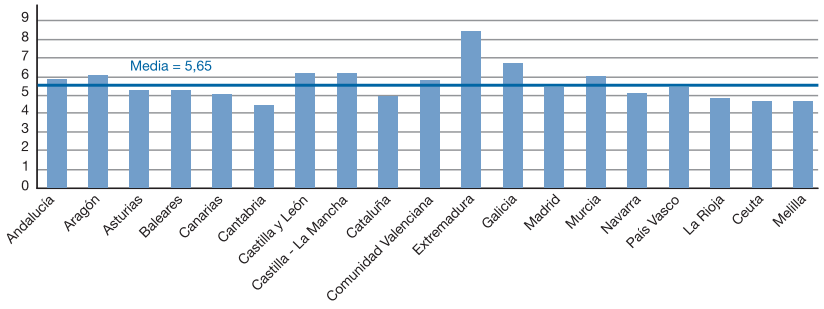
Health Zone is indicated, although many of the local health facilities that depend on the main centre also participate in training).[5]

Frequentation in Primary Care

The average frequentation of medical consultation at the primary care level takes into account all people who state that they have consulted a family doctor or paediatrician "about some health problem, pain or illness (of theirs)."[6]

For the SNS as a whole, this frequentation measure was 5.65 consultations per inhabitant per year in 2006. The figure oscillates between 4.41 and 8.32, as the minimum and maximum values respectively, depending on the autonomous community. The disaggregated results by autonomous community are shown in Figure 3.5.

Figure 3.5. Stated frequentation in Primary Care medicine



Source: National Health Survey. Spanish Ministry of Health and Social Policy in collaboration with the National Statistics Institute

In order to improve the accuracy of the measure of frequentation, as a complement to the information obtained from surveys, in 2008 compilation began of initial data regarding ***registered care activity*** at the primary care level in the SNS. The data includes consultations both in and out of normal hours (during shifts specifically for urgent care or out-of-hours care) and is disaggregated by Health Care Area and by type of professional; family medicine, paediatrics and nursing.

5 Spanish Ministry of Health and Social Policy. Catalogue of Primary Care Centres.

6 Spanish Ministry of Health and Social Policy/National Statistics Institute. National Health Survey 2006.

The data also differentiates the activity by quinquennial age groups and by sex, both in the total volume of consultations and in the number of people who have generated such consultations. Publication of the initial data and indicators is set for 2009.

Organisation of services

To be able to obtain certain comparable statistics in the sphere of Primary Care within the SNS, it is important to be familiar with the different ways of organising the care provided at the first care level, and to know what effects such organisation has on the allocation of resources, task distribution and the activity performed. This means that it is necessary to pool information about organisational aspects, both general aspects of primary care and also more specifically regarding the range of services available, urgent care, mental health or oral health, among others, that can be used as metadata in the analysis.[7]

The ***range of services offered*** in Primary Care, in all the autonomous communities, is established by Royal Decree 1030 on the common benefits package of the SNS,[8] although some services are given special priority. Such priority services must fulfil a series of explicit requirements and they are subject to agreements with the professionals and to specific evaluations.

Primary care services are mainly actions involving health promotion, early detection, diagnosis and/or treatment of relevant health problems (reduction of preventable diseases through vaccination, monitoring of risk factors and prevalent diseases or palliative care, among others).[9]

The ***organisation of walk-in urgent care*** is generally approached as a co-ordinated and complementary action among different facilities. Such facilities may depend, in terms of their management, on the bodies in charge of primary care or on specific bodies in charge of urgent care and emergencies.

The Primary Care Teams are responsible in all cases for providing urgent care during their working hours and outside of those hours they frequently provide such care through a system of on-call shifts at the Out-of-hours Care Sites, which are mostly rural and in many cases have support personnel hired especially for such purpose. Additionally, in urban settings, urgent care services are provided through what is called Primary Care Emergency Services, or a similar name, which generally provide services from 5 p.m. through 8 a.m. of the following day on working days and 24 hours

7 http://www.msc.es/estadEstudios/estadisticas/estadisticas/estMinisterio/siap.htm

8 RD 1030/2006 Cartera de servicios comunes del SNS y procedimiento para su actualización.

9 http://www.msc.es/estadEstudios/estadisticas/docs/siap/04-Oferta_de_Servicios_en_AP-2008.pdf

on Sundays and holidays. They are generally staffed by professionals who work exclusively in urgent care.

There are, however, numerous local adaptations of this organisation[10] which, as a whole, is estimated to attend almost 30 million emergencies every year (not including the emergencies attended directly by the emergency phone services 112 and 061).

This information is completed with the list of all the facilities existing in each autonomous community for the purpose of providing urgent care.

Catalogue of Primary Care Centres

The year 2008 saw the publication of the first Catalogue of Primary Care Centres of the SNS. The catalogue, like the Primary Care Information System, is a product of the cooperation between the Spanish Ministry of Health and Social Policy and the competent authorities of the various autonomous communities.

This catalogue expands on the basic statistical information mentioned above, providing a detailed list of primary care centres that depend on the autonomous communities and INGESA, the institute in charge of health services in the autonomous cities of Ceuta and Melilla.

The catalogue's structure follows functional criteria and includes information about the name of the centre, its address and postal code, telephone number, town and municipality in which it is located, the type of centre it is (health centre or local health facility) and whether or not it is accredited as a teaching centre for postgraduate training (medical intern resident programme, or MIR) in the family and community medicine speciality.

The first ordering criterion is geographical location. This criterion has two levels of disaggregation: autonomous community and province.

The next territorial structure criterion used is the order according to the primary care health map of each autonomous community, which establishes, basically, two levels of disaggregation: Health Care Area and Basic Health Zone.

Within each Basic Health Zone the centres are ordered by type, in such a way that in rural settings the list includes all the physical centres organised functionally around a main centre (health centre) and that provide care to a population group delimited by the Basic Health Zone.

Then the names of the municipalities appear in alphabetical order, except in those cases in which an autonomous community has established its own ordering method, which is respected. Lastly, as the maximum level of disaggregation, the centres are ordered by the name of the town (village or

10 http://www.msc.es/estadEstudios/estadisticas/estadisticas/estMinisterio/siap.htm

hamlet with no local government structure of its own), since sometimes this is different from the municipality to which it belongs.

The catalogue (to see the original, in Spanish, click on catalogue[11]) is updated every year on 31 December. The existing information is also currently being improved and expanded.

3.2 Specialised Care

At the beginning of 2008, according to the National Catalogue of Hospitals, the total number of working hospitals in Spain was 800.[12] Of them, a little over 40% belong to the SNS and thus depend on the various Public Administrations. Among the remaining hospitals, several form part of the network of hospitals for public use and hospitals that have signed long-term agreements with the SNS, or which receive public funding for their activity. As a result, as many as 40% of the hospitalisations in private hospitals are funded by the SNS.

Almost all of the hospitals counted in the census contributed to the Statistical Study on Inpatient Medical Facilities (EESCRI), by sending their 2007 data concerning the facilities' resources, activities and expenses. Also, all the acute care hospitals of the SNS add their hospital discharge records to the state-wide Minimum Basic Data Set (MBDS), the statistical use of which is included, along with the EESCRI, in the statistical operations of the National Plan on Statistics. The results of these two operations for 2007 comprise the main source of data for this chapter.

Beds

In 2007, the network associated with the public system had 71.2% of the total of 158,306 hospital beds, the ratio being 3.53 beds for every 1000 inhabitants for the sector as a whole.

As regards their distribution, the public sector manages the majority of the beds for acute patients (80%), while the proportion is almost the opposite in the case of psychiatric hospitals (36% of the beds) and long-term care hospitals (30% of the beds).

Their distribution by autonomous community is shown in the following table (Table 3.7).

11 Spanish Ministry of Health and Social Policy. National Catalogue of Hospitals.

12 In this census, the hospitals that are grouped together as hospital complexes are counted as a single hospital.

Table 3.7. Distribution of available beds by autonomous community. SNS hospitals. 2007

	Number	Beds/1000 inhab.	SNS beds as % of total beds
Andalucia	16,541	2.07	74.59 %
Aragón	4,383	3.41	81.88 %
Asturias	3,457	3.27	80.71 %
Baleares	2,465	2.40	65.32 %
Canarias	4,694	2.32	62.04 %
Cantabria	1,689	2.98	69.91 %
Castilla y León	7,282	2.92	76.68 %
Castilla-La Mancha	5,163	2.65	91.03 %
Cataluña	18,449	2.57	58.42 %
Comunidad Valenciana	10,442	2.16	80.66 %
Extremadura	3,834	3.56	89.83 %
Galicia	8,602	3.15	81.62 %
Madrid	14,168	2.32	66.61 %
Murcia	3,033	2.18	64.72 %
Navarra	1,384	2.30	57.45 %
País Vasco	5,902	2.77	69.76 %
Rioja	852	2.75	86.85 %
Ceuta and Melilla	435	3.10	100.00 %
TOTAL	112,775	2.51	71.24 %

Source: Spanish Ministry of Health and Social Policy. Statistical Study on Inpatient Medical Facilities

The evolution in the number of beds in recent years (Table 3.8) continues to follow the downward trend that has been visible since the 1980s, although the decrease is not generalised if the use of the beds and which system they depend on are also analysed.

The decline in the number of beds is more pronounced in public hospitals, mainly due to the reduced number of beds in psychiatric hospitals. In the private sector, while acute care hospitals have also seen a reduction in their number of beds (almost 4% between 2000-2007), the number of beds in geriatric and long-term care hospitals has increased during the same period.

Table 3.8. Evolution in number of beds by type of system and use. 2000-2007

Public/SNS									
	2000	2001	2002	2003	2004	2005	2006	2007	07/00
Acute care	105,532	103,582	102,587	103,159	102,421	101,689	102,510	102,854	-2.50%
Psychiatric	7,563	7,225	6,912	6,396	6,319	5,926	5,832	5,690	-24.80%
Long-term care	4,342	3,957	3,692	3,888	4,087	4,282	3,909	4,231	-2.60%
TOTAL	**117,437**	**114,764**	**113,191**	**113,443**	**112,827**	**111,897**	**112,251**	**112,775**	**-4.00%**
Private									
	2000	2001	2002	2003	2,004	2005	2006	2007	07/00
Acute care	26,839	26,407	26,843	24,762	24,941	24,889	25,121	25,852	-3.70%
Psychiatric	10,388	10,436	10,758	10,625	10,673	11,216	10,918	10,229	-1.50%
Long-term care	8,227	8,184	8,319	8,646	9,627	9,143	9,215	9,450	14.90%
TOTAL	**45,454**	**45,027**	**45,920**	**44,033**	**45,241**	**45,248**	**45,254**	**45,531**	**0.20%**

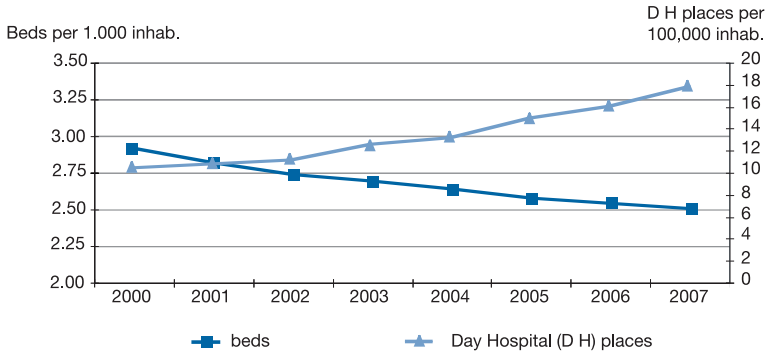
Source: Spanish Ministry of Health and Social Policy. Statistical Study on Inpatient Medical Facilities

As for other hospital features, the network of SNS hospitals has most of the 2670 incubators existing in Spain, the proportion being 5 to 1 with respect to private hospitals, while such predominance is smaller when it comes to operating rooms and delivery rooms, where the ratio is 2 to 1 in favour of the public sector. The number of SNS operating rooms (2606 in 2007) had increased by more than 8% since 2000 in the public sector, while there was little or no growth in the private sector.

Day hospital places

In contrast, the number of places in day hospitals has increased very significantly in recent years, in a trend opposite to the one shown by the number of beds. This is a reflection of the progressive shift towards ambulatory specialised care, which is resulting in procedures that previously required admission to the hospital being performed in activity areas without overnight stay (Table 3.7 and Figure 3.6). Such an increase is found in both absolute numbers and in rates per 1000 inhabitants.

Figure 3.6. Evolution in number of beds and day hospital places in SNS hospitals. 2000-2007



Source: Spanish Ministry of Health and Social Policy. Statistical Study on Inpatient Medical Facilities 2007

In absolute numbers, since 2000 the public sector has doubled its number of day hospital places, which have risen from 4375 in 2000 to over 8000 in 2007; in private hospitals the figure has also doubled, although the initial figure was only 1200 and the figure at the end of 2007 was 2448 places. It should be noted that in both the public and private sectors, the type of hospital in which the increase in day hospital places was most notable was long-term care hospitals. This reflects the pronounced trend towards ambulatory care and the de-institutionalisation of the problems related to the so-called long-term care procedures, which require specific support and rehabilitation structures for this type of patient.

Technological Equipment

Of all the different types of material resources, advanced technology medical equipment is the type that has experienced the most significant increase in recent years. Within such equipment, magnetic resonance imaging is the one with the most spectacular variations. In 2000, public facilities had only 61 NMR units, and in 2007, the number of units counted was 159, which represents an increase of 160%. The rate for that year was 3.6 units per one million inhabitants. Secondly, with regard to Computerised Axial Tomography (CAT) technology, the number of available units in public hospitals grew by 33%, increasing from 310 to 414 in the same period, which means there are 9.23 units per one million inhabitants. Table 3.9 shows the distribution of these types of equipment and also that of digital angiography and hemodynamic facilities, by autonomous community.

Table 3.9. Distribution of technological equipment by autonomous community. SNS hospitals. 2007

	Hemodynamic facilities		CAT units		Magnetic Resonance Imaging		Digital Angiography	
	No.	Units X 1M inhab.	No.	Units X 1M inhab.	No.	Units X 1M inhab.	No.	Units X 1M inhab.
Andalucía	23	2.88	68	8.51	20	2.50	19	2.38
Aragón	2	1.55	15	11.66	4	3.11	4	3.11
Asturias	2	1.89	13	12.28	7	6.61	2	1.89
Baleares	2	1.94	8	7.78	4	3.89	2	1.94
Canarias	7	3.47	15	7.43	3	1.49	9	4.46
Cantabria	2	3.53	6	10.58	2	3.53	2	3.53
Castilla y León	6	2.41	20	8.03	7	2.81	5	2.01
Castilla-La Mancha	5	2.56	24	12.30	10	5.12	5	2.56
Cataluña	29	4.05	61	8.51	23	3.21	14	1.95
Comunidad Valenciana	15	3.11	44	9.12	14	2.90	12	2.49
Extremadura	3	2.79	13	12.07	7	6.50	3	2.79
Galicia	8	2.93	31	11.36	16	5.86	13	4.76
Madrid	27	4.42	50	8.18	30	4.91	20	3.27
Murcia	3	2.15	15	10.77	4	2.87	3	2.15
Navarra	1	1.66	6	9.99	4	3.33	1	1.66
País Vasco	6	2.82	20	9.39	3	1.41	11	5.16
Rioja	0	0.00	3	9.70	3	9.70	1	3.23
Ceuta and Melilla	0	0.00	2	14.27	0	0.00	0	0.00
TOTAL	**141**	**3.14**	**414**	**9.23**	**159**	**3.54**	**126**	**2.81**

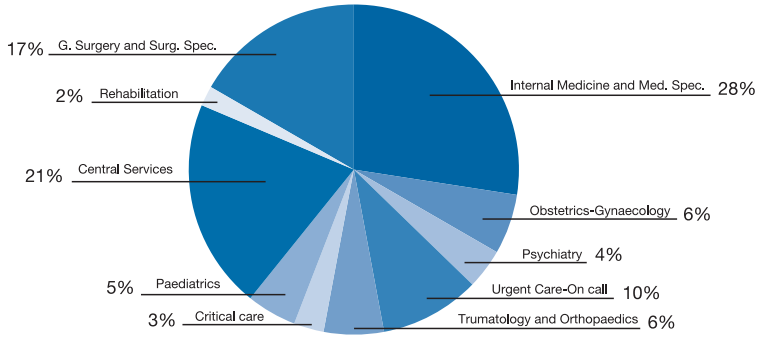
Source: Statistical Study on Inpatient Medical Facilities 2007. Spanish Ministry of Health and Social Policy

Personnel

The hospital sector employs the majority of Spain's health professionals (80%). As of 31 December 2007, there were 489,960 professionals working in the sector with a contract, whether as government employees, statutory employees, or as regular employees with ordinary contracts, either full or part time, excluding personnel engaged in postgraduate training. Of them, 72% were women. Also, a total of 23,702 people were working as "frequent collaborators" (personnel who do not have a government, statutory or ordinary employment contract with the centre at which they provide services).

Four out of five employees of the hospital sector in Spain work for the network of SNS hospitals, which employs 421,025 professionals. Among them three quarters belong to a health profession, the most numerous category being that of nursing. Thus, out of every 100 health professionals, 40 work as nurses, 35 work as nursing assistants and 23 are medical professionals.

Figure 3.7. Distribution of medical professionals by area of specialisation. SNS hospitals. 2007



Source: Spanish Ministry of Health and Social Policy. Statistical Study on Inpatient Medical Facilities 2007

Ten out of 11 medical professionals working in the hospital sector are employed by the public network, although some of them also work at private hospitals. By area of specialisation, specialists in Internal Medicine and Medical Specialities, including Critical Care, represent almost one third of all medical professionals (31.1%), while General Surgery and Surgery Specialities, including those belonging to Traumatology and Orthopaedics and Obstetrics-Gynaecology, represent 29%. The rest are medical professionals who work in central services (the specialised services that support other clinical activities, such as radiology, laboratory, hospital pharmacy, anatomical pathology) (21.80%), urgent care departments (7.85%) and others (Figure 3.7).

In terms of evolution, between 2000 and 2007, the number of professionals associated with the SNS rose by 25%, and in the specific case of doctors the figure is 33%.

Activity

Of the total of 5.2 million admissions that occurred in 2007, almost four million (3,925,332) were in SNS hospitals, which works out to be 90

admissions per 1000 inhabitants in this sector. Likewise, it was in the public sector where most of the specialised care consultations took place (86% out of a total of 77 million in 2007), and hospitals belonging to the SNS network attended 80% of the 26.2 million hospital-attended emergencies. The only activity in which the public sector did not show such an overwhelming majority was surgery, where of the 4.5 million operations performed, almost one third took place in a private hospital. However, more than 30% of the Major Outpatient Surgery performed in private hospitals during that year was publicly funded, a clear indication of the role that this arrangement can play as a complementary resource in health care.[13]

The average length of stay in patients admitted to public hospitals was 8.09 days. This figure, often considered an indicator of efficiency, has steadily decreased in the 2000-2007 period, especially in acute care hospitals. This reduction represents a savings of almost one half day in terms of the length of the hospital stay of each patient admitted.

The reduction observed in the average length of stay, especially in acute care hospitals, has been accompanied by an increase in the rotation index (number of patients who have occupied the same bed during the year) and by an increase in the occupation index, which has facilitated a notable increase in activity, especially considering, as mentioned above, that the number of beds in the public sector has fallen by 4% (Table 3.10).

Table 3.10. Evolution of activity indicators. SNS acute care hospitals. 2000-2007

	Discharges	Average Stay	Occupation Index	Rotation Index
2000	3,562,755	7.77	79.92 %	37.54
2001	3,577,249	7.67	80.03 %	38.11
2002	3,623,614	7.68	81.49 %	38.75
2003	3,721,126	7.59	82.37 %	39.61
2004	3,759,423	7.48	81.95 %	40.00
2005	3,782,522	7.46	82.37 %	40.30
2006	3,817,283	7.38	81.34 %	40.25
2007	3,890,256	7.37	81.87 %	40.55

Source: Spanish Ministry of Health and Social Policy. Statistical Study on Inpatient Medical Facilities 2000-2007

13 Public funding: includes activity funded by "the Social Security system", "Companies that collaborate with Social Security", "Other Public Bodies", "Insurance Mutuals for Government Employees" and "Others".

Causes of hospitalisation

With regard to the main causes of hospitalisation, Table 3.11 shows, by sex, the distribution of the main diagnoses upon discharge of the almost four million cases of hospitalisation, classified by chapters of the ICD-9-CM.[14] Among them, diseases of the circulatory system, with almost 510,000 cases, occupy the first position, closely followed by complications of pregnancy, childbirth and the puerperium (505,000 cases - 13.69% of the total). Diseases of the digestive system and of the respiratory system, with 11.89% and 11.79%, respectively, occupy third and fourth place, while fifth place is occupied by neoplasms which, with almost 340,000 discharges, represent over 9% of the total. It is important to note that avoidable conditions, such as injuries and poisonings, occupy the sixth position and in 2007 they represented more than 300,000 discharges (8% of the total).

Table 3.11. Distribution of discharges by primary causes of hospitalisation. SNS acute care hospitals. 2007

CHAPTER	Women		Men		TOTAL	
	CASES	CASES / 10,000 INHAB.	CASES	CASES / 10,000 INHAB.	CASES	PERCENTAGE OF TOTAL
Infectious and parasitic diseases	29,481	12.98	42,000	18.96	71,481	1.94
Neoplasms	158,542	69.79	180,556	81.5	339,098	9.20
Endocrine, nutritional and metabolic diseases, and immune disorders	37,406	16.47	28,005	12.64	65,411	1.77
Diseases of the blood and blood-forming organs	18,286	8.05	17,069	7.7	35,355	0.96
Mental disorders	34,174	15.04	41,550	18.75	75,724	2.05
Diseases of the nervous system and sense organs	54,641	24.05	53,262	24.04	107,903	2.93
Diseases of the circulatory system	221,366	97.44	288,457	130.2	509,823	13.83
Diseases of the respiratory system	172,156	75.78	266,061	120.09	438,217	11.89
Diseases of the digestive system	187,973	82.74	246,792	111.39	434,765	11.79

14 International Classification of Diseases, 9th Revision, Clinical Modification, the classification system used in the SNS for clinical coding, for purposes of statistical analysis of diseases.

CHAPTER	Women		Men		TOTAL	
	CASES	CASES / 10,000 INHAB.	CASES	CASES / 10,000 INHAB.	CASES	PERCENTAGE OF TOTAL
Diseases of the genitourinary system	118,069	51.97	93,786	42.33	211,855	5.75
Complications of pregnancy, childbirth and the puerperium	504,696	222.15	-	-	504,696	13.69
Diseases of the skin and cutaneous tissue	16,053	7.07	19,794	8.93	35,847	0.97
Diseases of the musculoskeletal system and connective tissue	104,377	45.94	80,213	36.2	184,590	5.01
Congenital anomalies	13,557	5.97	19,161	8.65	32,718	0.89
Certain conditions originating in the perinatal period	28,997	12.76	35,984	16.24	64,981	1.76
Symptoms, signs and ill-defined conditions	71,817	31.61	89,189	40.26	161,006	4.37
Injuries and poisonings	140,130	61.68	159,883	72.16	300,013	8.14
Appendix I. Supplementary classification of factors influencing the state of health and contact with healthcare services	45,082	19.84	48,607	21.94	93,689	2.54
Other	9,017	3.97	10,190	4.6	19,207	0.52
TOTAL	1,965,820		1,720,559		3,686,379	100

Notes: Cases in which the sex code was erroneous or left blank were excluded
Source: Spanish Ministry of Health and Social Policy. MBDS

The area of obstetrics, the most frequent cause of hospitalisation, is among the areas showing the greatest increase in activity during this decade. The number of births attended in 2007 was 491,042 for the entire hospital sector; among them, 389,309 took place in SNS hospitals (25% more than in 2000, when there were 313,452 births). Attending normal births thus becomes the most frequently performed individual process[15] (Table 3.12). However, it must be highlighted that the number of caesarean sections has also increased notably both numerically and in proportion to the total number of births; while in 2000 the number of caesareans performed was 61,146 (19.5% of the total of births), in 2007 over 86,100 caesareans were performed (22.36% of

15 Classified according to the Diagnosis Related Groups (DRG) – AP DRG version 21.

births), which means that this intervention is the most frequently performed surgical procedure in SNS hospitals (see Table 3.13). It should be mentioned that the percentage of caesarean deliveries is much higher in private hospitals, where almost 38% of the deliveries were caesarean.

Table 3.12. Distribution of 25 most frequent processes involving hospitalisation. SNS hospitals. 2007

DRG	Description	2007	% of total (2007)
373	Childbirth without complications	211,550	5.74%
541	Respiratory disorders except infections, bronchitis, asthma with major CC	105,366	2.86%
372	Childbirth with complications	88,042	2.39%
127	Cardiac insufficiency and shock	65,308	1.77%
371	Caesarean without complications	56,310	1.53%
359	Uterine/adnexa procedures for CA in situ and non-malignancy without CC	44,035	1.19%
381	Abortion with dilation and curettage, aspiration or hysterotomy	39,447	1.07%
87	Pulmonary oedema and respiratory insufficiency	44,588	1.21%
14	Stroke with infarction	39,147	1.06%
629	Newborn with birth weight >2499 g, without significant OR proc, normal newborn diagnosis	38,411	1.04%
162	Procedures on inguinal and femoral hernia age>17 without CC	35,024	0.95%
209	Major joint and limb reattachment proc of lower extremity, except hip, without CC	35,866	0.97%
544	CHF and cardiac arrhythmia with major CC	37,295	1.01%
430	Psychoses	33,402	0.91%
88	Chronic Obstructive Pulmonary Disease	35,298	0.96%
818	Hip replacement except for complications	31,737	0.86%
494	Laparoscopic cholecystectomy without bile conduct exploration without CC	31,131	0.84%
167	Appendectomy without complicated principal diagnosis without CC	29,953	0.81%
219	Lower extremity and humerus procedure except hip, foot and femur, age >17 without CC	25,483	0.69%
158	Anal and stomal procedures without CC	24,949	0.68%
775	Bronchitis and asthma age <18 without CC	22,844	0.62%
89	Simple pneumonia and pleurisy age >17 with CC	26,343	0.71%
383	Other antepartum diagnoses with medical complications	22,675	0.62%
208	Disorders of the biliary tract without CC	22,829	0.62%
816	Non bacterial gastroenteritis and abdominal pain age <18 without CC	21,704	0.59%
	Subtotal first 25 processes:	**1,168,737**	**31.70%**
	TOTAL	**3,686,655**	**100.00%**

Notes: CC: comorbidity and/or complications
Source: Spanish Ministry of Health and Social Policy. SNS Hospital Discharge Register - MBDS

Table 3.13. The 15 most frequent surgical DRGs. SNS Hospitals. 2007

DRG	Description DRG	Discharges with surgical DRG	Percentage of total
371	Caesarean without complications	56,310	4.30%
359	Uterine/adnexa procedures for CA in situ and non-malignancy without CC	44,035	3.36%
381	Abortion with dilation and curettage, aspiration or hysterotomy	39,447	3.01%
209	Major joint and limb reattachment proc of lower extremity, except hip, without CC	35,866	2.74%
162	Procedures on inguinal and femoral hernia age>17 without CC	35,024	2.67%
818	Hip replacement except for complications	31,737	2.42%
494	Laparoscopic cholecystectomy without bile conduct exploration, without CC	31,131	2.38%
167	Appendectomy without complicated principal diagnosis, without CC	29,953	2.29%
219	Lower extremity and humerus proc except hip, foot and femur, age>17 without CC	25,483	1.94%
158	Anal and stomal procedures without CC	24,949	1.90%
311	Transurethral procedures, without CC	22,476	1.71%
55	Miscellaneous ear, nose, mouth and throat procedures	22,012	1.68%
211	Hip and femur procedures except major joint, age >17 without CC	21,192	1.62%
160	Hernia procedures except inguinal and femoral, age>17 without CC	19,907	1.52%
225	Foot procedures	18,111	1.38%
	Subtotal 15 most frequent procedures	**457,633**	**34.91%**
	Total discharges	**1,310,752**	**100%**

Notes: DRG: Diagnosis Related Groups[16]
CC: comorbidity and/or complications
Source: Spanish Ministry of Health and Social Policy. SNS Hospital Discharge Register. MBDS

16 Surgical discharges classified according to the Diagnosis Related Groups (DRG) – AP DRG version 21.

The pattern of diseases attended as well as care patterns change in response to factors such as the ageing of the population, which explains why the average age of hospitalised patients has risen from 48 to 52 years over the past decade.[17] Also, the greater accessibility of the services and the variations in the population's habits related to the use of health services can be seen in the extraordinary growth in hospital emergencies, with almost 70% of the admissions being urgent (5.4% more than in 1997). Finally, modifications in hospitalisation criteria, influenced by the evolution of diagnostic and therapeutic techniques, have brought about a shift in activity towards areas that are alternatives to hospitalisation. These include Major Outpatient Surgery, Day Hospital and the extension of Home Hospitalisation.

Starting in 2005 the Hospital Discharge Register (MBDS) broadened its frontiers to include these areas of ambulatory activity, mainly outpatient surgery, thus making it possible to study the use pattern and care processes in these types of care. This is reflected, in 2007, in the 15 surgical procedures most frequently performed as ambulatory cases. For these processes (Table 3.14), the substitution rate (percentage of the total of processes attended) was 75%, that is, three out of four interventions of this type (the total was 845,044) were performed as ambulatory cases.

17 Hospital Discharge Register - MBDS. SNS hospitals. Spanish Ministry of Health and Social Policy.

Table 3.14. Distribution of the 15 most frequent surgical DRGs. Outpatient Surgery. SNS hospitals. 2007

DRG	Description DRG	Outpatient cases	Inpatient cases	Substitution rate
39	Lens procedures with or without vitrectomy	232,558	14,009	94.32%
270	Other skin, subcutaneous tissue and breast procedures without CC	130,864	8,513	93.89%
40	Extraocular procedures except orbit age >17	39,095	4,388	89.91%
266	Skin graft and/or debridement except for skin ulcer, cellulitis without CC	28,456	6,561	81.26%
6	Carpal tunnel release	25,538	3,063	89.29%
162	Procedures on inguinal and femoral hernia age>17 without CC	22,952	35,024	39.59%
42	Intraocular procedures except retina, iris and lens	21,103	7,107	74.81%
359	Uterine and adnexa procedures for CA in situ and non-malignancy, without CC	20,762	44,035	32.04%
225	Foot procedures	19,934	18,111	52.40%
229	Hand and wrist procedures, except major joint, without CC	18,167	12,881	58.51%
119	Vein ligation and stripping	17,469	15,606	52.82%
364	Dilation and curettage, conization except for malignancy	14,826	5,661	72.37%
867	Local excision and removal of internal fixation devices except hip and femur, without CC	13,991	15,209	47.91%
55	Miscellaneous ear, nose, mouth and throat procedures	13,569	22,012	38.14%
342	Circumcision age>17	13,397	183	98.65%
	Subtotal first 15 ambulatory surgical processes:	**632,681**	**212,363**	**74.87%**
	Total cases	**838,025**	**1,310,752**	**39.00%**

Notes: DRG: diagnosis related groups[18].
CC: comorbidity and/or complications
Source: Spanish Ministry of Health and Social Policy. Hospital Discharge Register (MBDS) and Register of Specialised Ambulatory Care

18 Surgical discharges classified according to the Diagnosis Related Groups (DRG) – AP DRG version 21.

Reference Centres, Services and Units of the SNS

Royal Decree 1302/2006 of 10 November, published on 11 November 2006, lays down the basic procedures for designating and accrediting the Reference Centres, Services and Units of the SNS.

The main purpose of designating these SNS reference facilities (known by their Spanish acronym, CSUR) is to guarantee equitable access and efficient, safe and high-quality care for people with pathologies that, because of their unique characteristics, need highly-specialised attention and thus require that the cases be concentrated in a reduced number of centres.

In 2008, the Interterritorial Council of the SNS, in its session on 18 June, approved the proposal made by the CSUR designation committee regarding the pathologies and procedures corresponding to the CSUR, and also the criteria that must be met in order to be a reference facility in the areas of: ophthalmology; medical and radiotherapeutic oncology; plastic, reconstructive and cosmetic surgery; traumatology and orthopaedics; care for transsexuals; and transplants.

In that same session of 18 June and also in the session held on 26 November, the Interterritorial Council approved, at the proposal of the aforementioned Committee, the designation of 40 CSUR to attend or carry out the following pathologies or procedures:

- Congenital alterations in ocular development.
- Intraocular tumours in adults.
- Advanced retinopathy of prematurity.
- Treatment of germinal tumours with intensive chemotherapy.
- Live liver transplant on adult.
- Critical burns.
- Outer ear reconstruction.
- Congenital glaucoma and childhood glaucoma.
- Extraocular tumours in childhood (Rhabdomyosarcoma).
- Intraocular tumours in childhood (Retinoblastoma).
- Orbital decompression in thyroid-associated ophthalmopathy.
- Orbital tumours.
- Complex ocular surface reconstruction (Keratoprosthesis).
- Penetrating keratoplasty in children.

In the session that took place on 26 November 2008, the procedure for referring patients from the autonomous communities to the CSUR was also approved.

The CSUR designated in 2008 began to act as such on 1 January 2009.

Summary

The vast majority of the specialised care resources in Spain are found within the SNS, which also performs most of the activity in the sector, especially in the areas of hospitalisation, obstetrics, consultations and urgent care. In recent years there has been a trend, in terms of both resources and also care activity and care patterns, towards the ageing of the population attended, the reduced use of hospital beds, and the displacement of activity towards ambulatory settings. These trends are a response to demographic factors, technological advances and the expectations and customs of the population, which determine, even more than need itself, this profile of care. Of all the associated factors, the only one that shows an alteration in the trend observed in the previous two decades is that of natality, which, following a pronounced fall, is again on the rise, as reflected in the increased number of births attended since 2000.

The following sources of information have been used:

- National Statistics Institute (natural population movement 2000-2007. Madrid)[19]
- Spanish Ministry of Health and Social Policy (Statistical Study on Inpatient Medical Facilities 2000-2007. Madrid[20]
- Spanish Ministry of Health and Social Policy (Hospital Discharge Register – MBDS: 2000-2007. Madrid[21]

19 Instituto Nacional de Estadística (INE). Movimiento Natural de la Población, 2000-2007. http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t20/e301/&file=inebase

20 Ministerio de Sanidad y Política Social. Estadística de Establecimientos Sanitarios con Régimen de Internado. Años 2000-2007: http://www.msc.es/estadEstudios/estadisticas/estHospiInternado/inforAnual/home.htm

21 Ministerio de Sanidad y Política Social. Registro de Altas - CMBD. Años 2000-2007. http://www.msc.es/estadEstudios/estadisticas/cmbdhome.htm

4 Public Health

The prevention of disease, the promotion and protection of health through actions aimed at environmental and occupational health, border health control, HIV/AIDS prevention and public health surveillance, in addition to the co-ordination and management of health alerts, all of which are provided for in Royal Decree 1132/2008, are functions that the Spanish Ministry of Health and Social Policy performs through the Directorate General of Public Health and Border Health Control.

Activities in the field of public health are based upon co-operation, cohesion and institutional loyalty, always in co-ordination with the health authorities of the autonomous communities, with the professionals of the SNS and with all parties dedicated to improving the level of health and well-being of the population.

The guiding principles in Spain's public health policy are equity, the "health in all policies" concept, the consideration of social aspects, health inequalities and solidarity.

"Health in all policies" is an initiative of the World Health Organisation (WHO) that promotes intersectoral and transversal action on health determinants in all spheres of government activity. From this innovative perspective, public health is conceived of and acted upon across all public policies, actively involving all decision-making levels, economic sectors and social agents with the aim of promoting better health. The practical application of this principle takes the form of the Health Impact Assessment (HIA). Its purpose is to make a series of recommendations to maximise the health benefits of any given proposal, before it is implemented. The first steps have been taken towards the creation in Spain of a Centre for Health Impact Assessment (CHIA), which will focus on raising awareness of the direct and indirect impacts of health policies and other types of policies on the population's health.

In 2008, preparatory actions began for the creation of a new Public Health Act which will adapt the public health structures and policies of the central government to the public health challenges of the 21st century and to the need for international influence and leadership and also co-ordination at the national level, while taking into account the spheres of responsibility of the autonomous communities and Spain's membership in the European Union (EU).

This working method, based on debate, consensus and the participation of all the sectors involved in public health (non-governmental organisations, municipalities, universities, the Parliament, political parties, labour unions, foundations, scientific societies, industry, etc.), is certain to contribute to the development and successful application of public health strategies.

Spain is a participant in various groups of experts and acts as the focal point of multinational and worldwide organisations. Throughout 2008 Spanish representatives participated in groups of the Council of the European Union (CEU), especially the Public Health group, and they have also worked with WHO, in its Executive Board and its World Health Assembly. Spain also maintains a close relationship with the European Centre for Disease Prevention and Control (ECDC), as a member of its Advisory Forum and of its Management Board.

In addition, by making a priority of the "Surveillance of socio-economic health determinants and the reduction of inequalities" it is Spain's intention that during its Presidency of the EU, greater consideration will be given to socio-economic determinants as a key factor in the health of Europeans.

Also, the implementation of the HIV/AIDS prevention programme, with a high degree of social content, incorporates the public health principles regarding respect for human rights and non-discrimination and integrates numerous non-governmental organisations, working in close co-operation with the autonomous communities.

In the area of Border Health Control a project on international health is currently being developed, with the objective of integrating Spain's expertise in public health and international health through concerted actions with the Spanish Centres of Excellence and the Ministry of Foreign Affairs.

With regard to the prevention and control of health impacts derived from exposure to environmental factors, the DG of Public Health and Border Health Control is the only competent authority in terms of the application of the new European regulation on chemicals, REACH (Registration, Evaluation, Authorisation and Restriction of Chemical Substances).

In addition, the DG of Public Health and Border Health Control and the health authorities of the various autonomous communities have drawn up a series of proposals for the development of a Public Health policy in the framework of a cross-party Pact on Health, which would involve public health information systems, the vaccination calendar, human resources policies, the range of services offered and regulations in the field of public health.

4.1 Epidemiology. Actions aimed at health promotion and the prevention and control of diseases

Health promotion activities

Through the permanent Working Group on Health Promotion of the Interterritorial Council of the SNS, a document has been published

containing strategies and recommendations that have been agreed upon by the Public Health authorities of all the autonomous communities. This document includes the "Healthier Young People" report created by the Youth Institute and the Youth Council, which analyses and reflects upon the health and quality of life of young people between the ages of 15 and 29 years. The report[1] makes recommendations and discusses the sexual and reproductive health, drinking habits and mental health of Spanish young people.

Also, in relation to the Information System for Health Education and Promotion (SIPES[2]), a survey of the 1956 professionals who are registered with this information system revealed that 75% of them were in favour of making it simpler to use. Following consultations and a consensus-reaching process with the autonomous communities, a second version was created and is now in the pilot phase.

Intersectoral action has been promoted to make health a priority in other policies. Collaborative projects in the creation and development of interdepartmental plans that depend on other ministries include: the National Action Plan for Social Inclusion in the Kingdom of Spain 2008-2010, the Plan for Equal Opportunities, the Integrated Plan against Human Trafficking for Purposes of Sexual Exploitation, the Interministerial Plan on Youth 2005-2008, the National Strategic Plan on Children and Adolescents, the Strategic Plan on Citizenship and Integration 2007-2010, the Action Plan for the Development of the Roma population, among others. In addition, specific agreements have been signed with other sectors involved in health promotion for the development of concrete objectives that reinforce sectoral actions or facilitate their analysis and implantation.

Health at school

In the education sector, as part of the framework agreement for collaboration between the Ministry of Education and Science and the Ministry of Health and Social Policy, following 20 years of collaboration in health promotion and education at school and with the now-generalised extension of health education as a transversal subject in the compulsory school curriculum, a new stage has begun, aimed at enhancing the quality of these actions, with the project "Quality criteria for the development of programmes and actions of health promotion and education in the education system"[3] in which the

1 "Ganar Salud Con la Juventud" http://www.msc.es/ciudadanos/proteccionSalud/adolescencia/docs/jovenes_2008.pdf

2 Sistema de Información en Promoción y Educación para la Salud http://sipes.msc.es/

3 http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/saludJovenes/docs/DiagnosticoSituacionEscuela.pdf

Regional Ministries of Health and of Education of all the autonomous communities have participated. The project began with an analysis of the current situation in terms of health education and promotion system in the public administrations and at schools, which ended in March 2008.

After making the diagnosis, there began a period of reflection, review of evidence and experiences concerning the activities and programmes to improve health at school. Quality criteria are set forth to help intervene in and select activities and programmes of Health Promotion and Education, to develop actions involving curricula, the school, family and community settings, and to guarantee basic health capital for all schoolchildren.[4]

To implement and disseminate the project to the entire education community a document will be published in the last quarter of 2009: "Health at School. A guide for getting there."

In 2008, given the growing prevalence of obesity in school-aged children, a guide on healthy eating for families was published, to supplement other materials created for teachers and for use in the school setting on the subject of diet and physical activity.[5]

Also published in 2008, with the participation of the autonomous communities, was the study "Health Behaviour in School-Aged Children" (HBSC), which is performed every four years through an agreement with the University of Seville. Also, in Seville, in 2008, the Symposium "25 Years of the HBSC Study: Contributions and challenges for the future" was held, with a focus on health equity in the school setting.[6]

Health at the university

September of 2008 saw the creation of the Spanish Network of Healthy Universities, with 17 member universities. Its main strategies are: to strengthen university settings that promote health; to incorporate training in health promotion into university programmes at the undergraduate and post-graduate level; to conduct research in health promotion; to enhance participation and collaboration among public health bodies, community institutions and universities; and to expand the range of campus services and activities aimed at promoting health in the university community.

Spain is the first country to create a national network of this type in the university setting. During the last quarter of 2009 the network will be

4 http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/saludJovenes/docs/criteriosCalidad2MSC_MEC.pdf

5 http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/saludJovenes/docs/criteriosCalidad2MSC_MEC.pdf

6 http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/saludJovenes/adolesSalud.htm

presented publicly, so that all interested universities can join. Also, the 4th International Congress of Health Promoting Universities will be held in Pamplona.

Health in the city

The Healthy Cities Project is promoted through a collaboration agreement with the Spanish Federation of Municipalities and Provinces. The number of cities that have joined the healthy city movement is currently 143, and these cities represent almost 40% of the Spanish population.[7]

The annual conference on Health and Sustainability was held in 2008. It addressed subjects crucial to the health and sustainability of our development model, such as: generation of spaces for shared decision-making, greater attention to the psychological and social components of health, climate change and health, city models, participation, intersectoral activity, proximity policies, best practices in which "the healthy choice is the easy choice," health promotion and protection, equity, active and healthy ageing in cities.

Equity in health is one of the main strategies for promoting health and attaining greater health for the entire population, and for this reason Section 7 of this annual report devotes a chapter specifically to this subject.

Another priority in Public Health is informing the population about health subjects through campaigns about pertinent topics. In 2008, a campaign on "Preventing Unwanted Pregnancies" was launched, with the following objectives: to transmit the need for respect, responsible behaviour and communication in couples, strengthening the idea that decision-making should be shared; to do away with the image that being young means being irresponsible; to convey to the segment of the population that does not engage in sexual intercourse at that age (75%) that there are many ways to express affection/sexuality and that each person is free to decide how far he or she wants to go; to integrate cultural diversity, the various ways of relating to other people; the effectiveness of condoms in the prevention of unwanted pregnancies, as well as HIV and other sexually-transmitted infections.

Spain also participates in the permanent international forums for health promotion of the WHO and the European Union, through national experts in health promotion and members of the Committee for Health Promotion Development, of healthy prisons, violence prevention and health, and of healthy cities; and also by participating in projects and groups at the

7 http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/ciudadesSaludables/ciudadSalud.htm

European level: EuroHealthNet, Health Inequalities and Social Determinants, International Union for Health Promotion and Education.

Prevention activities

The main prevention activities undertaken from the public health perspective are aimed at preventing those factors that generate a significant mortality, morbidity and incapacity burden, besides the social and human costs associated with them. Among them, the following deserve special mention:

- Prevention of alcohol-related problems.
- Prevention of injuries.
- Cardiovascular prevention.
- Prevention of smoking.

Prevention of alcohol-related problems

The problems caused by the consumption of alcohol are not limited to Spain; they have a significant effect on the entire European Union. For this reason, in 2006 and in the context of the Programme of Community Action in the field of public health (2005-2008), the European Union Strategy to support Member States in reducing alcohol-related harm was adopted, and this strategy currently guides actions in this area. It focuses on the prevention and reduction of intense and extreme alcohol consumption, and of consumption by minors and on some of its most negative consequences, such as traffic accidents caused by alcohol consumption and foetal alcohol syndrome.

To find out about the preventive actions undertaken at the autonomous community and local levels, a census of preventive actions has been developed. Its analysis will facilitate the exchange of best practices and the design of future strategies and interventions. Also, there is a website[8] containing information on this subject.

The DG of Public Health and Border Health Control is a member of the Working Group on alcohol, drugs, medicines, and road safety of Spain's High Council for Traffic Safety, which is committed to reducing the injuries and deaths caused by alcohol-related traffic accidents.

With regard to adults, early identification of drinkers at risk is of vital importance, since this is the cornerstone of preventive actions in the area of alcohol from the health care perspective. This priority has been transmitted to professionals and scientific societies, who have received the

8 Website for the prevention of alcohol consumption by young people http://alcoholyprevencion.info/

consensus document "Prevention of alcohol-related problems"[9] that was published in 2008.

With regard to young people, providing information and identifying harmful conducts is essential. For this purpose a website on Alcohol and Youth[10] has been created, which targets especially parents, health professionals, teachers and educators.

The DG has collaborated in the creation of the "Global Questionnaire: Alcohol Control Policies" to make a shared database on alcohol policies available. This database is the new information system of the WHO European Region.

The Third European Alcohol Policy Conference was held in Barcelona in April of 2008, under the name: "Building Capacity for Action." Spain has participated in other international meetings as well, such as the "Alcohol and Health Forum" and the "Policy and Action Committee", both within the framework of the aforementioned European Strategy.

Material from the WHO has been adapted and translated: "Framework for alcohol policy in the WHO European Region" (which contains strategic guidelines and policy options concerning alcohol in different regional, national and local spheres) and the "Glossary of alcohol and drug terms."

Finally, the measures adopted by the autonomous communities and INGESA (the institute in charge of health services in Ceuta and Melilla) to prevent alcohol-related problems are deserving of special mention and are listed in Table 4.1.

9 "Prevention of alcohol-related problems" is available in its original version at: http://www.msc.es/alcoholJovenes/docs/prevencionProblemasAlcohol.pdf

10 Alcohol and Youth website by the Ministry of Health and Social Policy http://www.msc.es/alcoholJovenes/home.htm

Table 4.1. Actions and progress in the implementation of plans and programmes aimed at alcohol prevention in 2008

	ACTIONS PERFORMED
Aragón	Creation of Programme to Prevent Consumption of Alcohol in teenagers "Retomemos… Una propuesta para tomar en serio". For implementation in 2008-2009 school year, in second cycle of compulsory secondary education
Baleares	Evaluation of Action Plan against Drug Dependence and Addictions 2003-2011, which includes actions to combat consumption of alcohol
Cantabria	Evaluation of Programme to Prevent Drug Addiction, which includes actions to combat consumption of alcohol. Training of educators
Castilla-La Mancha	Monitoring of Plan on Alcoholism and Drug Dependence 2006-2010
Cataluña	Reinforced implementation of Programme "Drink Less" 2006-2010
Extremadura	Introduction of Integrated Plan to Fight Drug Dependence and other Addictive Conducts (PIDCA) 2008-2012
Madrid	Monitoring of Strategic Plan of the Anti-Drug Agency 2006-2009
Navarra	Evaluation of Plan against Drug Dependence started in 1994, which includes actions to combat consumption of alcohol
País Vasco	Evaluation of the prevention and control of alcohol consumption in the priority service package
Rioja	Monitoring of Plan against Drug Dependence and other Addictions, which includes a programme on Alcohol and Gambling Addictions
Ceuta	Introduction of programme monitoring the consumption of alcohol in young people, included in the Health Plan adopted in 2008

Note: Includes the information provided by the autonomous communities and INGESA before final reporting date for inclusion in this document

Source: Reports from the autonomous communities and INGESA

Injury prevention

In Spain the situation with respect to the fatal consequences of injuries (non-intentional injuries and violence) is the same as in the countries around Spain. Such injuries are the first cause of death among young people, from 1 to 39 years of age, and the third cause for people up to the age of 59. They are the fifth cause of death for all age groups and they are more frequent in men than in women. The magnitude of this problem makes it necessary to reach a better understanding of it and identify the risk factors.[11]

It should be underlined that the WHO is playing a leadership role in this area, mainly since the passage of Resolution EUR/RC55/R9. The WHO

11 http://www.msc.es/profesionales/saludPublica/prevPromocion/accidentesyLesiones.htm

believes that there is insufficient awareness of the true magnitude of the problem and of the fact that injuries can be avoided. For this reason, it is asking state parties to draw up National Action Plans for injury prevention, to improve surveillance, and it highlights the role that the health sector should play. A Violence and Injury Prevention division has been created in the WHO, along with a network of national representatives, in which the DG of Public Health and Border Health Control participates in representation of Spain.

Following these recommendations, in Spain a study on injuries has been conducted. It includes an analysis of the interventions, integrated plans, laws and decrees pertaining to injuries that exist in the various autonomous communities, so that a better understanding of the current situation can be obtained. Also, the main training tool that the WHO uses in this field, TEACH VIP (Training, Educating and Advancing Collaboration in Health on Violence and Injury Prevention), has been adapted and translated into Spanish.

As part of the information system on injuries based on the hospital discharge data of the European Union's Project Apollo, a breakdown of the said system by autonomous community has been carried out. A study has been performed on the epidemiology of spinal injuries and severe traumatic brain injuries and the economic impact of this kind of injury in Spain, where between 800 and 1000 new cases of spinal injuries occur each year, mainly affecting young people and in 50% of the cases due to a traffic accident. For this reason the national coordination of data based on a basic set of road safety indicators (WHO) has been reinforced and support and collaboration with victims of road violence have been strengthened, through the funding of courses, the publication of the Stop Accidentes association's Guide for Helping People Affected by Traffic Accidents, for schools, professionals, hospitals, affected parties. In addition, the presentations made at the ***"4th Forum Against Road Violence"*** held on 10 May 2007 were published.

The DG of Public Health and Border Health Control has participated in the Interministerial Commission on Road Safety and in the High Council on Traffic and Road Safety, both in plenary sessions and in the Permanent Committee and Working Groups; the Framework Collaboration Agreement was signed between the Ministry of Health and Social Policy and the Ministry of Home Affairs, to engage in joint actions aimed at preventing traffic injuries and their severity. The DG also participated in the Strategic Plan on Road Safety (2005-2008).

At the international level, Spain takes part in the European Child Safety Alliance and the European Network EUNESSE on the safety of the elderly in the EU. Spanish representatives attended the "9th World Conference on Injury Prevention and Safety Promotion" in Mérida, Mexico, in March of 2008. Spain was awarded first prize for the Ministry of Health and Social Policy's campaign on the Prevention of Childhood Injuries.

Cardiovascular prevention

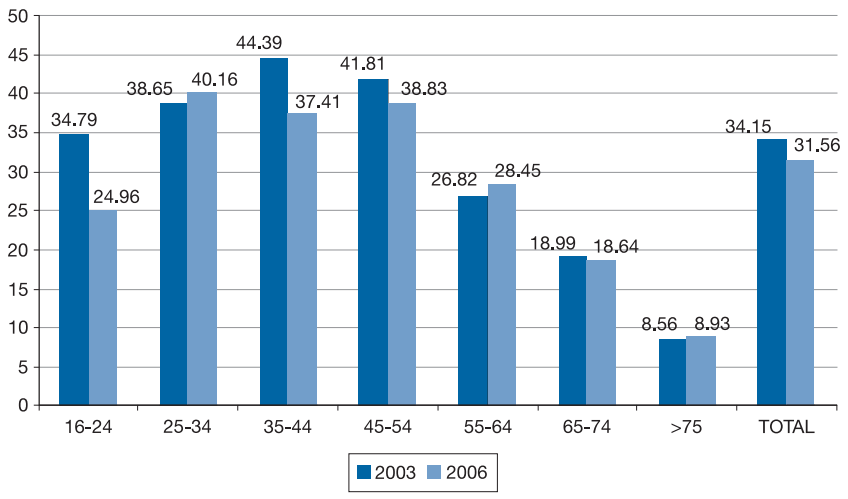
The DG of Public Health and Border Health Control has participated in the Spanish Interdisciplinary Committee on Cardiovascular Prevention, which is comprised of 14 scientific societies and respective representatives of the Ministry of Health and Social Policy and the Ministry of Science and Innovation. The "Guide to Cardiovascular Prevention in Clinical Practice" was published, thus making available a single document on cardiovascular prevention that has been agreed by consensus and adapted to the reality of Spain.

Smoking prevention

In Spain, smoking-attributed mortality accounted for an estimated 14% of total mortality, that is, around 56,000 annual deaths (Banegas et al., 2001). Current rates of death from lung cancer and tobacco-related diseases, along with the high social and health care costs of smoking, mean that a reduction in the prevalence of smoking must be a top priority for public health policies in Spain.

As shown in Figure 4.1 and Figure 4.2 the prevalence of smoking fell slightly in the period between 2003 and 2006.

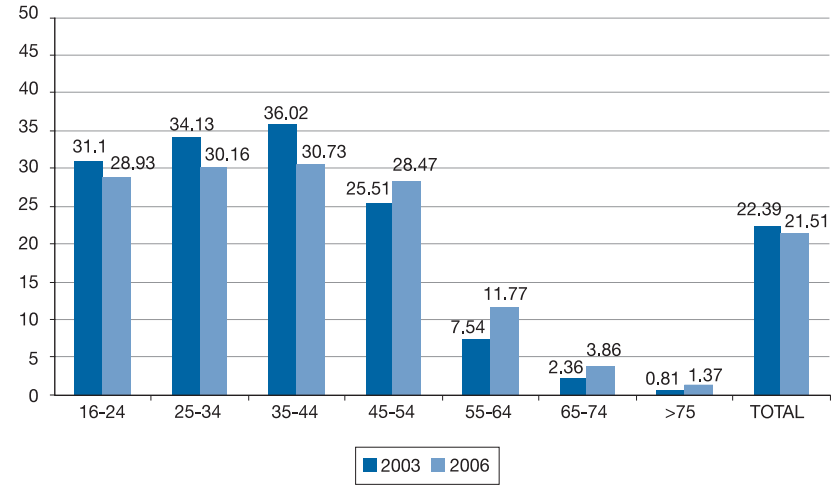
Figure 4.1. Percentage of smokers by population groups (men)



Note: The National Health Survey of Spain considers a smoker to be any person who uses cigarettes, cigars and/or a pipe daily

Source: Prevalence of tobacco use. National Health Survey, 2003-2006

Figure 4.2. Percentage of smokers by population groups (women)



Note: The National Health Survey of Spain considers a smoker to be any person who uses cigarettes, cigars and/or a pipe daily

Source: Prevalence of tobacco use. National Health Survey, 2003-2006

With regard to the co-ordination and monitoring of the activities leading to the regulation of tobacco products, the ingredient and toxicology statements of tobacco products from 15 companies have been evaluated. Also, the report on the results of the analyses, performed twice, of the nicotine, tar and CO contents of 105 representative samples, conducted by the Research and Quality Control Centre, has been planned and assessed.

Such activities, in co-ordination with the European Commission and Member States, facilitate the task of regulating restrictions in terms of ingredients present in or added to tobacco products and also their maximum levels. These restrictions, in the short- and medium-term future, aim to eliminate from the products the ingredients which, because of their addictive or toxic effects, are the most harmful to people's health.

Regarding co-ordination with the autonomous communities of activities related to tobacco products and to smoking control and prevention, eight agreements have been signed, and two agreements signed in 2007 and effective in 2008, have received follow-up. The agreements have contributed to the development of preventive measures and the control of smoking in the autonomous communities, with a view to the development and implementation of the Anti-Smoking Law.

Spain has also participated in other national and international forums on smoking control. With the European Commission and the Member States, Spain has participated in the Tobacco Products Regulatory Committee, in the Group of Experts on Advertising and the Working Group on data compilation systems, attending the groups' meetings and participating in tasks of creation, review and updating of documents.

With the WHO, Spain has participated in the Third Conference of Parties to the Framework Convention on Tobacco Control (FCTC); in the Second Meeting of the Intergovernmental Negotiating Body for drawing up a protocol for the control of the illegal market; and in the Working Group for the creation of the guidelines "Education, communication, training and public awareness" provided for in Article 12 of the FCTC. Spain also played an active role in the organisation the World No Tobacco Day.

In collaboration with the National Committee on the Prevention of Smoking and with scientific societies, strategies on how to quit smoking and on smoking control have been disseminated. Activities in this field include the ninth Week without Smoke and the Congress of the National Committee on the Prevention of Smoking.

Guidelines and procedures for the implementation and application of Spanish and European legislation have been developed, with Spain collaborating in the design and functioning of the European electronic application for the tobacco ingredient data submission system (Electronic Model Tobacco Control-EMTOC). Spain participates in the creation of the practical guide "Reporting on Tobacco Product Ingredients", the European Union's harmonised reporting format for submission of lists of tobacco ingredients by manufacturers and importers.

Similarly, Spain has contributed to the creation of the practical guide "Cigarette yield measurement and some basic steps for laboratory approval", the European Union's guide for the designation of reference laboratories for testing contents in nicotine, tar and CO, and also for the norms to be followed in conducting the tests.

Finally, special mention should be given to the measures adopted by the autonomous communities and INGESA (the institute in charge of health services in Ceuta and Melilla) for the prevention and treatment of smoking. They are listed in Table 4.2.

Table 4.2. Actions and progress in the implementation of plans and programmes aimed at the prevention of smoking in 2008

	ACTIONS PERFORMED
Andalucía	Creation of integrated care process "Attending smokers" in primary care and beginning of same in hospital care, as part of Integrated Plan to Combat Smoking 2005-2010
Aragón	Evaluation of 5th edition of programmes to encourage smokers to quit: "Órdago" at schools and "Deshabituación" in the health care setting
Baleares	Evaluation of Plan to Combat Smoking 2003-2007
Canarias	Annual evaluation of Programme to Prevent Smoking
Cantabria	Evaluation and update of Plan for Smoking Prevention and Control 2008-2011. On-line training about tobacco as a generator of inequalities
Castilla y León	Monitoring of actions included in 5th Regional Plan on Drugs
Castilla-La Mancha	Monitoring of Plan on Smoking Prevention and Treatment 2003-2010
Cataluña	Monitoring of the programmes included in the Plan for Smoking Prevention and Control: Smoke-Free Primary Care, Smoke-Free Hospitals, Smoke-Free Pregnancies and Smoke-Free Classrooms
Extremadura	Introduction of Integrated Plan to Fight Drug Dependence and other Addictive Conducts (PIDCA) 2008-2012, which includes the Plan to Prevent Smoking
Galicia	Monitoring of Plan on Health care and Smoking and the advertising campaign "Spaces for Co-existence" aimed at the general public
Madrid	Monitoring of Regional Plan to Prevent and Restrict Smoking. Publication of "Practical Guide to Quit Smoking" aimed at general population and of "File of Recommendations and Advice to help patients stop smoking" for health professionals
Murcia	Monitoring of Smoking Information Programmes and the "Network of Smoke-Free Health care Centres"
Navarra	Monitoring of Action Plan to Combat Smoking, begun in 2001
País Vasco	Evaluation of smoking prevention and control in the priority service package
Rioja	Publication of the 2nd Guide to Attending Smokers in Primary Care and monitoring of Plan on Drug Dependence and other Addictions, which includes the Programme of Smokers Clinics
Ceuta	Introduction of programme to monitor smoking habits, included in the Health Plan adopted in 2008
Melilla	Monitoring of application of recommendations made in the National Strategy for Perinatal Health and Gender for the SNS

Note: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

Blood transfusion safety

The transfusion network in Spain is currently comprised of 24 Transfusion Centres and 341 Transfusion Services. Transfusion Centres are in charge of extracting and processing blood and blood components. They are all public and managed by the autonomous communities. The Transfusion Services are located in the network of hospitals.
In 2008 there were 1,760,000 voluntary donations, 2,000,000 people were transfused with blood components and 345,000 litres of plasma were provided to industry for the manufacture of blood derivatives.

Spain has a structure that was created according to the objectives of the National Haemotherapy Plan and in compliance with European Union guidelines. The structure, established by Art 36 of Royal Decree 1088/2005 and called the National System for Transfusion Safety (SNST, for its Spanish acronym), is comprised of the Scientific Committee for Transfusion Safety (CCST, for its Spanish acronym), the technical advisory body that proposes guidelines regarding transfusion safety at the state level, and the National Commission on Haemotherapy, the body in charge of co-ordination among the autonomous communities.

The CCST published various recommendations for the Transfusion Centres and Services, mainly in relation to: Chagas Disease, human variant of Creutzfeldt-Jakob Disease and universal leucodepletion in blood components.

The work done by the CCST has focused on introducing quality assessment systems and best practices in Transfusion Centres and Services, in accordance with Directive 2005/62/EC (transposed into Spanish law by Royal Decree 1343/2007). The following activities have been carried out, among others: a "Conference on Transfusion Quality" (held on 14 May 2008) and the creation, and dissemination of the guide "Quality Assessment Requirements."

Another aspect to be highlighted is the consolidation of the State-wide Blood Surveillance System. The SNST Information System, through its Blood Surveillance Unit, has drawn up a "Report on the National Haemosurveillance Programme 2007" and the "State-wide Statistics on the activity of Transfusion Centres and Services". The most interesting results are available through the Ministry's website, in the "Transfusion Medicine[12]" section.

In terms of international co-operation, there is ongoing collaboration with the different committees and working groups of the European Commission and the Council of Europe. In the Commission, Spain participates actively in the "European Blood Surveillance Group" and in the "EUBIS Project" on inspection procedures for the Centres and Services. As for activities undertaken by the Council of Europe, Spain participates in the following groups: "Guide to the preparation, use and quality assurance of blood components" and "Donor and Donation Management."

Additionally, in 2008 social benefits were paid to people with haemophilia or other congenital clotting disorders who were infected by the Hepatitis C virus (HCV) following treatment with clotting concentrates in the public health care system, in accordance with Law 14/2002, of 5 June 2002. Twelve applications for social benefits were processed and the HCV Social Benefits Evaluation Committee decided favourably in eight of them. The social benefits paid to these 8 people or their beneficiaries amounted to a total of €144,242.92. The official count of affected people as of 31 December 2008 was 1441.

The autonomous communities of Aragón, Castilla-La Mancha, Castilla y León and Murcia decided to grant complementary benefits to 146 of these affected persons, for a total of €1,177,983.52.

Social benefits were also paid to people affected by the Human Immunodeficiency Virus (HIV) as a result of actions taking place in the public health care system, in accordance with Royal Decree-Law 9/1993, of 28 May 1993. In 2008 a total of 29 applications were processed. The HIV Social Benefits Evaluation Committee rejected 9 applications and decided favourably in 17 of them. Of these, 15 had been presented by dependents and two by the affected persons themselves. The amount of the social benefits paid as a lump sum to the 2 affected persons or their beneficiaries was €120,202.42, paid by the Ministry of Health and Social Policy. The monthly benefits awarded to all 17 of the cases that received favourable rulings are paid out through the Spanish Ministry of Economy and Finance, in the amount established in Spain's national budget and by Royal Decree Law 9/1993, of 28 May 1993.

The data pertaining to the persons affected by either HIV or HCV are processed and incorporated into computerised personal data files, managed by the DG of Public Health and Border Health Control of the Ministry of Health and Social Policy. The concerned parties are informed of such incorporation as provided by Law 15/1999, of 13 December 1999, on the Protection of Personal Data.

Health in pregnant women, newborns and children

In actions aimed at improving the health of newborns, priority has been given to activities that have an impact on the prevention of deficiencies and therefore on the resulting disabilities. Work has been done in the co-ordination and monitoring of neonatal testing for inborn metabolic errors and hypoacusia.

12 Available at http://www.msc.es/profesionales/saludPublica/medicinaTransfusional/

In women's health, the DG has worked in collaboration with the programmes that are in place in the various autonomous communities, especially those programmes that have been approved by the Interterritorial Council of the SNS. Work has been done in the areas of preventing congenital deficiencies during pregnancy, preventing unwanted pregnancies, especially in young people and adolescents, and in setting up measures to ensure privacy, confidentiality and equity for women who choose to terminate a pregnancy.

In the area of children's health, specific projects have been undertaken, in collaboration with scientific societies, to improve the care programmes and identify the main health and social problems that affect children in Spain.

Of particular interest is the work performed in 2008 in fulfilment of the commitment made by WHO members to ***homogenise the standards and instruments used to measure maternal and child health***, so that real and effective improvement strategies can be created. To do so, Spanish professionals were informed of the growth and development standards for children aged 0-5 proposed by the WHO, in order to standardise such data and be able to analyse with greater objectivity the determinants that influence the growth and development of children.

The progressive introduction of these child growth standards is a direct measure that works in favour of breastfeeding and against smoking in pregnant women.

With regard to Elective Termination of Pregnancy (ETOP), a document has been published containing data from a statistical-epidemiological study on the different socio-economic and health circumstances present in women undergoing ETOP in Spain since the passage of Law 9/1985, which decriminalises abortions performed in certain situations. The definitive data corresponding to 2007 have been published and preparation of the 2008 data has begun.

Table 4.3. ETOP. Number by age group and autonomous community of residence. 2007

		Age group (years)							
	Total	<15	15-19	20-24	25-29	30-34	35-39	40-44	>44
TOTAL ETOP	112,138	500	14,807	28,242	27,581	21,240	14,054	5,301	413
Andalucía	20,358	111	3,170	5,575	4,842	3,388	2,308	880	84
Aragón	3,067	13	381	770	754	611	375	151	12
Asturias	1,627	3	175	418	396	301	236	89	9
Baleares	3,494	21	417	820	945	689	431	157	14
Canarias	5,181	37	744	1,138	1,217	1,017	715	295	18
Cantabria	554	2	55	139	123	123	67	42	3
Castilla y León	3,153	11	488	908	709	527	360	140	10
Castilla-La Mancha	3,429	12	482	992	785	591	387	165	15
Cataluña	21,871	80	2,577	5,329	5,538	4,452	2,831	993	71
Comunidad Valenciana	11,068	60	1,577	2,760	2,696	2,075	1,366	500	34
Extremadura	1,243	3	242	306	241	206	168	70	7
Galicia	2,546	10	390	552	604	514	308	160	8
Madrid	22,114	63	2,467	5,523	5,648	4,390	2,906	1,042	75
Murcia	4,675	24	576	1,187	1,285	893	521	172	17
Navarra	700	6	89	156	164	136	112	36	1
País Vasco	2,955	9	347	706	759	574	403	143	14
Rioja	555	2	53	139	140	107	78	35	1
Ceuta	34	0	4	12	7	7	3	1	0
Melilla	83	0	20	27	14	8	10	4	0
Foreigner	3,423	33	553	782	712	630	468	225	20
Unknown	8	0	0	3	2	1	1	1	0

Source: Sub-Directorate General for Health Promotion and Epidemiology. DG of Public Health. Ministry of Health and Social Policy

Table 4.4. ETOP. Rates per 1000 women in each age group. Period 1998-2007

	Year of intervention									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
TOTAL	6.00	6.52	7.14	7.66	8.46	8.77	8.94	9.60	10.62	11.49
Age (years)										
< 19	5.71	6.72	7.49	8.29	9.28	9.90	10.57	11.48	12.53	13.79
20-24	9.13	10.26	11.88	12.86	14.37	15.31	15.37	16.83	18.57	20.65
25-29	7.35	7.90	8.66	9.34	10.72	11.30	11.43	12.60	14.44	15.57
30-34	5.99	6.37	6.90	7.44	8.10	8.28	8.57	9.07	10.12	11.07
35-39	4.65	4.86	5.11	5.42	5.84	6.02	6.12	6.48	7.34	7.67
>40	2.35	2.34	2.35	2.47	2.72	2.69	2.69	2.87	3.05	3.25

Source: Sub-Directorate General for Health Promotion and Epidemiology. DG of Public Health. Ministry of Health and Social Policy

Table 4.5. ETOP in women aged under 20, by autonomous community of residence

	Year of intervention									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
TOTAL NATIONAL	7,774	8,669	9,204	9,918	10,659	10,957	12,046	12,883	13,894	15,307
Andalucía	1,482	1,782	1,838	2,117	2,272	2,500	2,794	2,979	3,096	3,281
Aragón	230	190	194	246	268	255	281	336	354	394
Asturias	179	196	265	198	213	216	242	211	220	178
Baleares	262	271	306	341	356	320	349	357	383	438
Canarias	420	438	473	641	609	574	595	641	714	781
Cantabria	61	56	60	53	55	53	58	58	69	57
Castilla y León	327	348	332	377	380	400	420	416	440	499
Castilla-La Mancha	228	237	237	252	270	289	319	398	437	494
Cataluña	1,540	1,831	1,946	1,958	2,028	2,026	2,132	2,169	2,407	2,657
Comunidad Valenciana	831	892	998	1,047	1,101	1,071	1,209	1,288	1,452	1,637
Extremadura	145	150	159	184	196	169	236	238	236	245
Galicia	344	367	362	349	356	363	375	399	362	400
Madrid	991	1,100	1,161	1,265	1,535	1,616	1,765	1,928	2,227	2,530
Murcia	206	218	309	331	365	374	397	471	478	600
Navarra	29	42	56	40	52	56	70	93	74	95
País Vasco	148	185	168	150	168	193	217	248	283	356
Rioja	42	37	35	35	45	48	46	57	53	55
Ceuta y Melilla	23	23	20	17	23	21	19	29	19	24

Source: Sub-Directorate General for Health Promotion and Epidemiology. DG of Public Health. Ministry of Health and Social Policy

4.2 Border health control

Article 149.16 of the Spanish Constitution provides that the State is the only competent authority in the area of border health control. Subsequently, the General Health Act defined the content of the responsibility of the State, specifying that border health control consists of "all those activities performed in the area of surveillance and control of possible health risks derived from the import, export or transit of goods, and from the international movement of travellers."

This provision is reinforced in the Treaty of Lisbon,[13] which includes among the European Union's spheres of action, as a complement to national policies, the "...monitoring, early warning of and combating serious cross-border threats to health." Along these same lines, the text of the new International Health Regulations adopted by the World Health Assembly in May of 2005, the only binding international legislation in the area of public health, draws attention to the need to strengthen surveillance and health monitoring capacities at the international level. In the national government of Spain, responsibility in the area of border health control is assigned to the Ministry of Health and Social Policy and to the Ministry of the Environment and Rural and Marine Affairs, the former being in charge of health surveillance and control in relation to risks to human health derived from the import, export and transit of goods, and the international movement of travellers.

Evaluation of health risks derived from the import, export and international movement of travellers and goods

International transport of corpses and cadaverous remains

Sanitary measures in relation to corpses, human remains and cadaverous remains, the technical and sanitary conditions of coffins, funerary vehicles and companies, as well as cemeteries and other burial sites, are activities of the public administration in charge of health and are governed by Decree 2263/1974, of 20 July 1974, which approves the mortuary hygiene regulations.

Responsibility in this field has been transferred to the autonomous communities, with the exception of the international transport of corpses, human remains and cadaverous remains, which continues to be a State responsibility managed by the Ministry of Health and Social Policy.

In 2008, a total of 1926 records of transfer of corpses either entering or exiting Spain was processed.

13 Official Journal of the European Union 2007/C306/01.17 December 2007

International transport of organs for transplant

Another function and activity in the area of border health control is the authorisation and control of the import and export of human organs, blood and its derivatives.

During 2008, a total of 303 entry and exit authorisations were issued for organs and tissue for transplant, in collaboration with the Spanish National Transplant Organisation.

International transport of anatomical preparations for research purposes

Sanitary and hygiene controls at borders, upon exit and entry in Spain, are also within the sphere of responsibility of the Border Health Control Services. In contrast, surveillance and sanitary-hygienic control of the preparations up through their incineration are the responsibility of the relevant autonomous community.

In 2008, the Directorate General of Public Health and Border Health Control granted 24 entry authorisations for different anatomical preparations to be used for scientific, teaching or research purposes.

International transport of biological samples

Royal Decree 65/2006, of 30 January 2006, lays down the requirements for the import and export of biological samples. More specifically, of biological samples to be used for diagnosis or research in human beings and those to be used to evaluate the functioning of in vitro diagnostic reactives, for subsequent application in human beings.

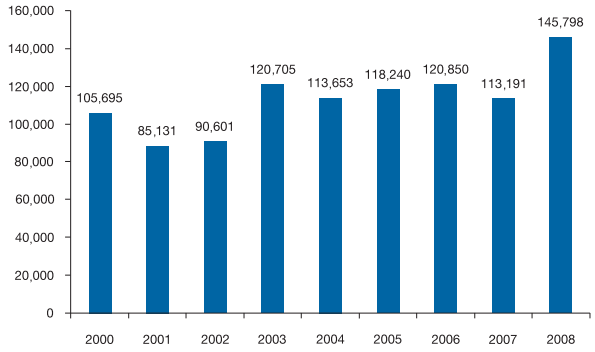
In 2008, authorisation was given to a total of 817 requests for biological samples to be used for diagnostic and research purposes. Individualised rulings were issued in each case. Of the authorisations granted, 52% were for public bodies (universities, research centres, and health administration), while 48% were for private companies and research centres. Entries were made in the Register of Importers for 20 centres, while 202 entries were made in the Register of Exporters.

International transport of products for human use and consumption-Imports

In 2007, Spanish customs agents checked 113,191 consignments of products for human consumption (the 2008 figure is 145,798), of which 56,030 were submitted to a physical inspection. Of the latter, samples of 3432 consignments were taken in order to perform laboratory analysis, producing a total of 8109 analytical determinations.

The following graph (Figure 4.4) shows the historical evolution of the control of consignments of products for human consumption at Spanish customs between 2000 and 2008.

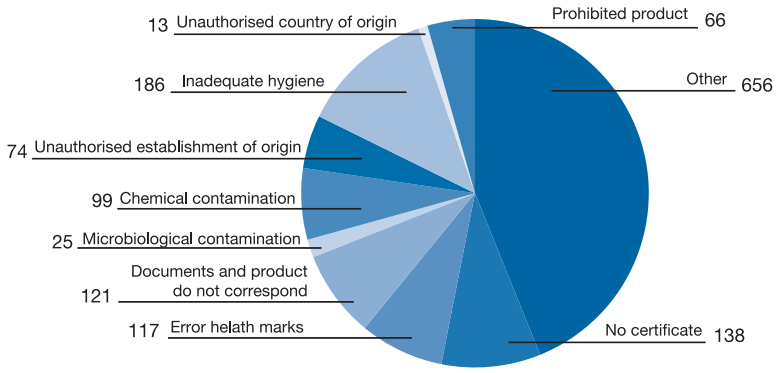
Figure 4.3. Control of consignments of products for human consumption



Source: Sub-Directorate General of Border Health Control. DG of Public Health. Ministry of Health and Social Policy

Of all the consignments checked, 936 were rejected (0.83%). Since some of them were rejected for more than one reason, the reasons for rejection total 1495, distributed as indicated in the following graph (Figure 4.5).

Figure 4.4. Reasons for rejection in control of consignments of products for human consumption



Source: Sub-Directorate General of Border Health Control. DG of Public Health. Ministry of Health and Social Policy

International transport of products for human use and consumption -Exports

In 2008, a total of 95 meat companies were authorised to export their products to the countries, non-EU members, listed below:

Table 4.6. Companies authorised to export

Country	Number of companies authorised to export
Argentina	10
Brazil	34
South Korea	18
United States	1
Japan	26
South Africa	6
Total	**95**

Source: Sub-Directorate General of Border Health Control. DG of Public Health. Ministry of Health and Social Policy

International vaccinations and advice for travellers

The International Vaccination Centres (IVC) are the sites where vaccines and other preventive and prophylactic measures are administered in the area of public health, in relation to the international movement of persons. It is also where International Vaccination Certificates are issued.

There are currently 73 IVC authorised by the Ministry of Health and Social Policy, and recognised by the World Health Organisation, to vaccinate against yellow fever. Of them, 29 form part of the areas functionally attached to the Ministry of Health and Social Policy, which depend on the Ministry of Presidential Affairs through the Delegations and Subdelegations of the Government, and 44 are part of other administrations (autonomous communities, other ministries or local governments).

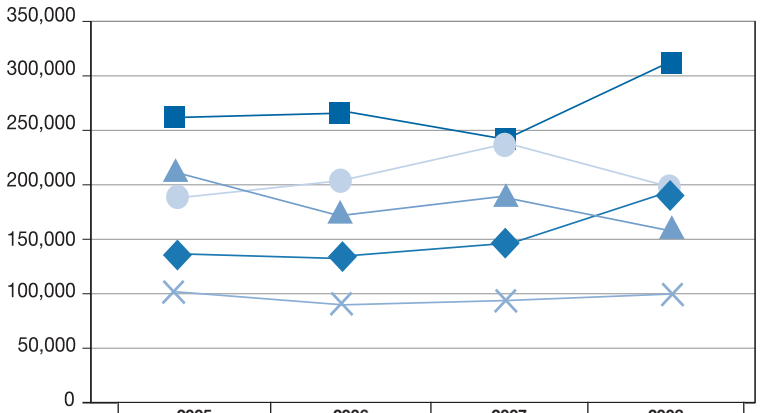
The vaccines administered in these centres are, besides the compulsory ones required internationally to enter the destination-country, specific vaccines recommended in accordance with the health conditions associated with the characteristics of the host country, the type of journey and the traveller. To be highlighted are the vaccines against yellow fever, typhoid, diphtheria/tetanus and hepatitis A.

Throughout 2008, a total of 199,471 travellers were attended in all the IVCs, 605,755 individualised preventive actions took place, 312,697 vaccines were administered and 193,659 immunisations were recommended.

For the prevention of malaria, the most relevant tropical pathology and for which there is no vaccine, a total of 99,596 indications of chemoprophylaxis against malaria (administration of drugs to prevent malaria) were prescribed in 2008.

The number of vaccines administered in 2008 increased by 10.6% with regard to 2007; the vaccines recommended throughout 2008 represent an increase of 27% with regard to 2007, and anti-malaria chemoprophylaxis under medical guidance increased by 5.9% as compared to the preceding year.

Figure 4.5. Number of actions in International Vaccination Centres. 2005-2008



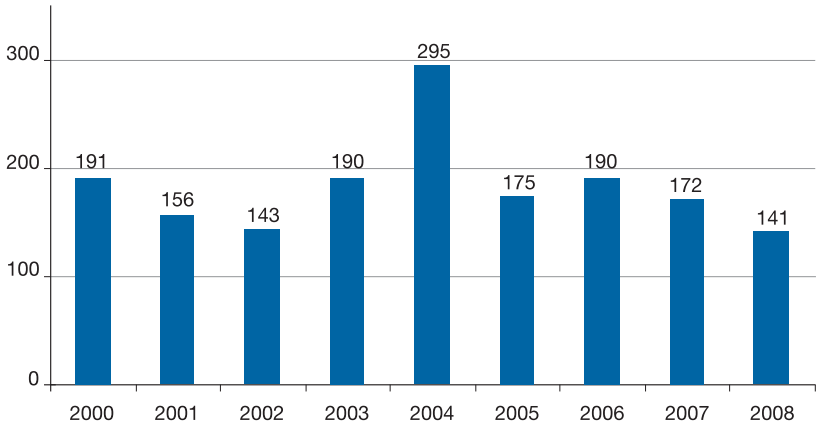
	2005	2006	2007	2008
Vaccines administered	261,090	266,272	242,600	312,697
Immunizations recommended	135,178	134,666	145,466	193,659
Chemoprophylaxis for malaria	101,166	89,205	93,665	99,596
Telephone calls taken	209,776	171,463	190,000	157,309
Number of travellers attended	188,445	204,985	238,600	199,471

Source: Sub-Directorate General of Border Health Control. DG of Public Health. Ministry of Health and Social Policy

Management of the International Alert Network

In relation to ***travellers***, in 2008 the Red de Alerta Sanitaria de Sanidad Exterior informed the International Vaccination Centres of a total of 141 international health alerts concerning situations that affected the preventive measures to be taken with travellers to the affected countries. The following graph shows the evolution of international health alerts between 2000 and 2008.

Figure 4.6. Number of International Health Alerts. 2000-2008



Source: Sub-Directorate General of Border Health Control. DG of Public Health. Ministry of Health and Social Policy

Fifty-four countries were affected and 36 different pathologies were documented. Some of the countries involved were the following: Argentina (5 alerts); Brazil (13 alerts); Burkina-Faso (3 alerts); Congo (3 alerts); China (11 alerts); Egypt (10 alerts); India (3 alerts); Indonesia (18 alerts); Nigeria (3 alerts); Paraguay (7 alerts); Russia (3 alerts); Turkey (3 alerts); Uganda (6 alerts); Vietnam (9 alerts) and Zambia (3 alerts).

As for the diseases involved, they include: 12 alerts for cholera, 6 for dengue fever, 22 for yellow fever, 3 for Marburg hemorrhagic fever, 2 for Rift Valley fever, 38 for avian flu, 5 for malaria, 4 for meningococcal meningitis, 4 for acute poliomyelitis, 3 for Ebola hemorrhagic fever, and 6 for Crimean-Congo hemorrhagic fever.

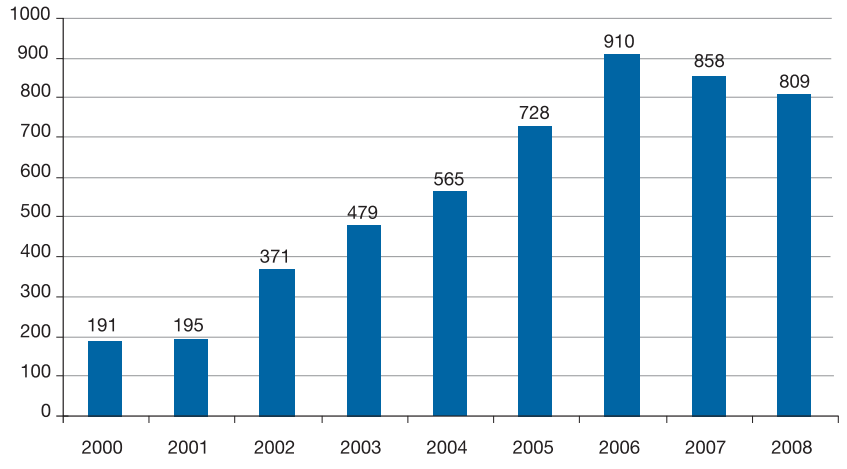
In relation to goods, in 2008 a total of 732 notifications were made through Red de Alerta Sanitaria de Sanidad Exterior (rejections at EU borders and internal market checks), and 417 alerts were put in place as a result of such notifications.

In addition, controls taking place at Spanish customs prompted the announcement of 19 border health alerts (4.3% of the total).

All together, 436 new alerts were put in place [100 involving products of animal origin (23%) and 336 involving products not of animal origin (67%)], 37 alerts were modified and 482 were ended. Thus, at the end of the year there were 809 alerts in effect, 5.5% fewer than in 2007.

The evolution of active alerts between 2000 and 2008 can be seen in the following graph:

Figure 4.7. Active health alerts. 2000-2008



Source: Sub-Directorate General of Border Health Control. DG of Public Health. Ministry of Health and Social Policy

The products included in the active alerts are submitted to an official inspection (consisting of document, identity and physical check) in 100% of the cases.

Sanitary control activities at border posts and in international means of transport

In 2007, routine inspections were performed on international means of transport and port and airport facilities.

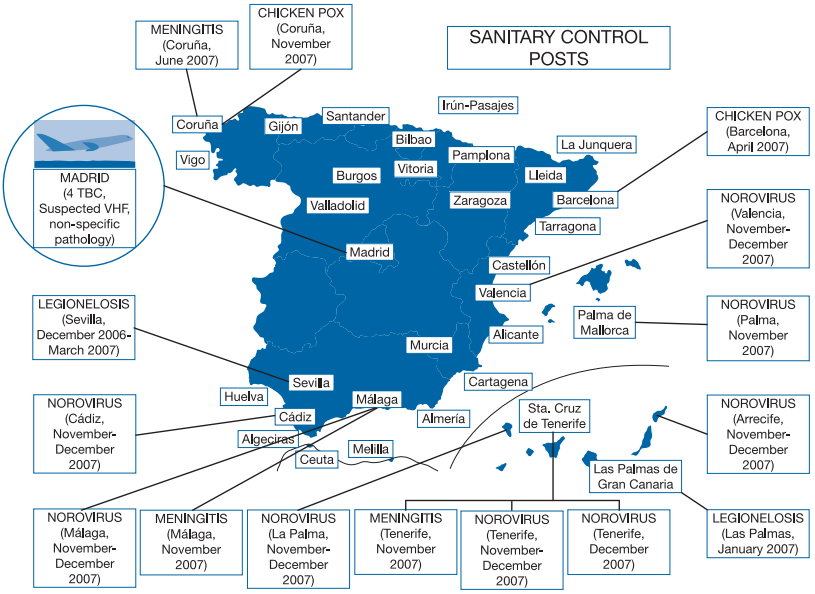
Table 4.7. Routine inspections in 2007	
Inspection of premises	730
Analysis of water	1,769
Inspection of international means of transport (ships)	6,486
Ship registration	630
Rodent control	284
Exemptions from rodent control	2,386
Insect fumigation	531
Inspections of first-aid kits	618
Maritime Declaration of Health	1,504
Disembarkation of ill people on board	96
Disembarkation of people who have died on board	19

Source: Sub-Directorate General of Border Health Control. DG of Public Health. Ministry of Health and Social Policy

Border health authorities also intervened in outbreaks of infectious diseases aboard ships and aircraft. Ships, as true floating hotels, can be host to different transmissible diseases and it is the duty of border health authorities to be prepared to conduct the necessary sanitary controls on the people and means of transport affected, to avoid the entry and spread of these illnesses in Spain. Throughout 2007, direct action was taken in 10 episodes of transmissible disease outbreaks aboard ships. In the case of aircraft, the length of intercontinental flights and the close contact between people, plus the possibility of infectious diseases being transmitted aboard aircraft but not showing manifestations until days later, mean that mechanisms for locating the passengers aboard must be established, so that they can be given the appropriate recommendations when necessary.

When the Sub-Directorate General of Border Health Control is informed of the detection of a case of a given transmissible disease who had travelled by airplane in the recent past, in collaboration with the Health Area of the town in which the airport of entry to Spain is located, the appropriate steps are taken to locate the possible contacts and inform them of the situation. The appropriate authorities in each case are also informed. When the case involves a traveller who was ill on board an aircraft prior to landing, then the necessary sanitary controls are also conducted, in coordination with the Health Area of the town involved. In such matters, in 2007, action was taken in a total of 6 episodes.

Figure 4.8. Outbreaks of infectious diseases on ships and aircraft in 2007



Source: Sub-Directorate General of Border Health Control. DG of Public Health. Ministry of Health and Social Policy

4.3 The National AIDS Plan

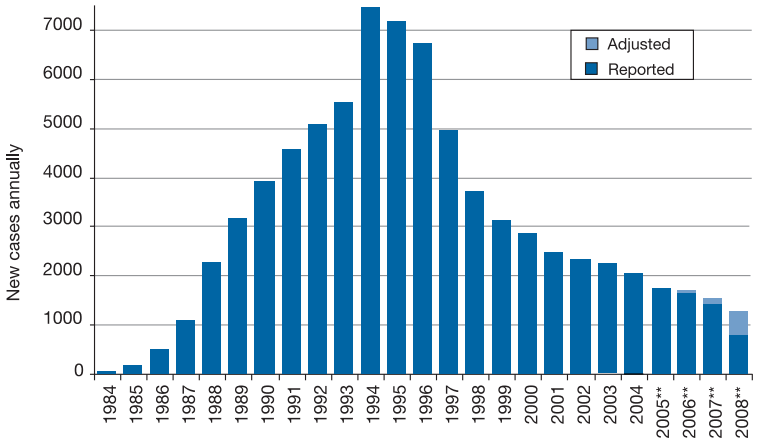
The ***III Multisectoral Plan against HIV-AIDS Infection-Spain 2008-2012*** was unanimously approved on 13 December 2007 by all sectors involved and its main principles are: to maintain leadership, well-coordinated commitment and the needed resources; to give renewed priority to prevention and the strategies that have proven effective, particularly harm reduction; to pay special attention to the quality of life of affected people and the struggle against stigmatisation and discrimination; to support international co-operation related to HIV-AIDS infection; and to encourage community participation.

The III Multisectoral Plan gives shape to these strategies within the Spanish social context, keeping in mind the role of the autonomous communities. Its intention is to promote, bring together and harmonise the sectoral activities of governmental and non-governmental organisations, working together in a co-ordinated fashion to stop the spread of HIV infection and to ensure the quality of the health and social services for people with HIV.

Epidemiological Surveillance and Co-ordination

Between 1981, the year the epidemic began, and 31 December 2008, a cumulative total of 77,231 AIDS cases had been reported, with incidence peaking in 1994, when there were 189.9 cases/million inhabitants. The introduction of Highly Active Antiretroviral Therapy (HAART) sharply reduced the number of cases and such reduction, although now slower, continues. In 2007 the rate of AIDS in Spain was 32.2 cases/million inhabitants.

Figura 4.9. Annual incidence of AIDS in Spain adjusted for delay in reporting National AIDS Register. Update of 31 December 2008



Note: **Adjusted figures

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

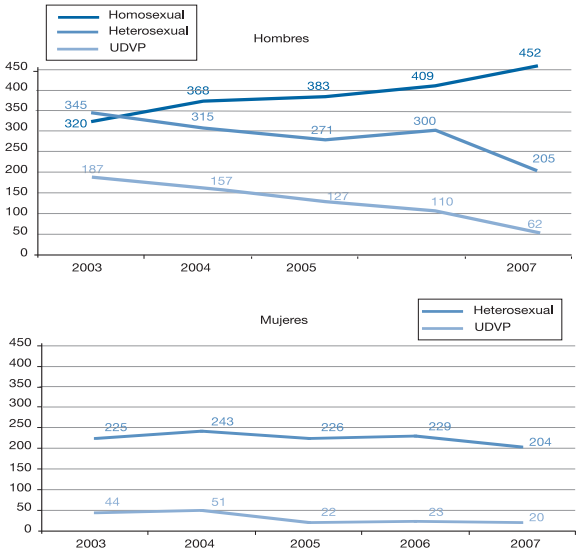
The best understanding of HIV incidence can be obtained from the data regarding new infections. The analysis of these data indicates that the incidence of new diagnoses peaked at the end of the 1980s, and that, starting in 1990, a descent began, due mostly to abandonment of injection as the means of consuming drugs, with the resulting decrease in cases of infections by this cause. Since 2003 information has been available from the autonomous communities of Baleares, Canarias, Cataluña, Extremadura, Rioja, Navarra, País Vasco and the autonomous city of Ceuta, which together represent 32% of Spain's population. The results show a stabilisation in recent years of the overall incidence rate which, during the 2003-2007 period,

was 86.14/million, similar to that of other Western European countries. As has been the case since the beginning of the epidemic, more men (75.9%) are infected than women. The average age at diagnosis was 37 years, the age in men being somewhat higher (37.8 years as compared to 34.8 in women).

The data concerning new diagnoses show two important changes in the epidemiological pattern of HIV in Spain. The first pertains to the main means of transmission, which is now sexual, and the second pertains to the impact of immigration patterns on the epidemic.

Among the 5785 new diagnoses of HIV infection that were documented between 2003 and 2007, the most frequent cause of infection was unprotected sex between heterosexuals (44.3%), followed by unprotected sex between men who have sex with men (MSM) (33.4%) and the sharing of injection material by intravenous drug users (IVDU) (13.9%). During this period, both the number of identified cases in IVDU and their proportion of the total have decreased, while infection through heterosexual contact seems to stabilise and the number and proportion of cases among MSM grow. By sex, in men transmission is most frequent among MSM (44.0%) while in women heterosexual transmission accounts for a higher number (80.7%).

Figure 4.10. New annual cases of HIV by transmission categories and sex. 2003-2007. Data from 8 autonomous communities



Note: IVDU: Intravenous Drug Users

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

As for the impact of immigration on the epidemic, it has been observed that 35% of the new diagnoses of HIV infection between 2003-2007 were in immigrants, most frequently from Latin America (14.4%), from Sub-Saharan Africa (11.5%) and from Western Europe (4.4%). Although the percentage of immigrants in the country's population increased from 29.4% in 2003 to 37% in 2007, this rise was not accompanied by a significant increase in the number of cases, which went from 357 to 390 in the 2003-2007 period. The distribution of cases by area of origin and means of transmission reveals that for Spaniards transmission among MSM has occupied the highest position since 2005; among foreigners heterosexual transmission predominates and is tending to stabilise, although cases in MSM were the only ones to increase between 2003 and 2007.

The administration of HAART starting in 1996 brought with it a pronounced descent in mortality associated with HIV, although in recent years the decrease has slowed. On the other hand, higher survival rates in people infected with HIV have meant an increase in mortality from other causes, in particular chronic liver diseases.

Table 4.8. Estimators of HIV and AIDS epidemic in Spain. 2007

New diagnoses of HIV (rate per million inhabitants)*	86/million
Probably means of infection in new diagnoses of HIV*	
Intravenous Drug Users	10% - 20%
Men with homosexual practices	30% - 40%
Heterosexual risk	45% - 55%
People living with HIV infection	120,000-150,000
Prevalence of HIV infection (rate per 1000 inhabitants)	2.4 – 3.6
Probably means of infection of people living with HIV	
Intravenous Drug Users	40% - 55%
Men with homosexual practices	15% - 25%
Heterosexual risk	25% - 35%
Characteristics of people with HIV	
Men	75% - 80%
Women	20% - 25%
Children (under the age of 13)	< 1%
People who have developed AIDS since the start of the epidemic**	77,000 – 93,000
Deaths from HIV/AIDS since the start of the epidemic**	50,000 – 60,000

Note: *Based on data from Canarias, Ceuta, Rioja, Navarra, País Vasco, Cataluña, Baleares and Extremadura.

**Estimates taking into account underreporting

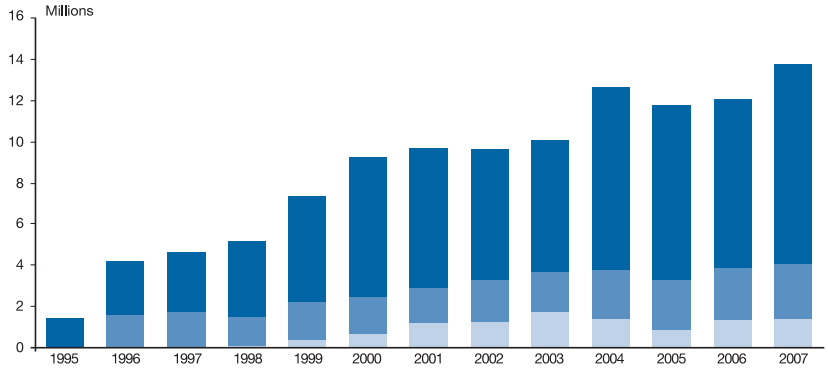
Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

Prevention activities

Since 1995, the National AIDS Plan Secretariat, through the Report on the Prevention Activities Questionnaire has, on an annual basis, gathered, analysed and published information about the main HIV prevention activities and programmes carried out by the autonomous communities, regardless of the institution or body that is responsible for their funding or administration.

According to this report, all the AIDS plans in the autonomous communities have funded and/or distributed condoms for free in 2007, mainly through non-governmental organisations. Since 2003, over 10 million condoms have been distributed annually. In recent years the number has grown considerably, surpassing 12 million, although this figure should be taken as a conservative estimate.

Figure 4.11. Number of condoms funded by autonomous community plans on AIDS, SGIP and CJE Spain in 1995-2007. National AIDS Register. Update of 31 December 2008



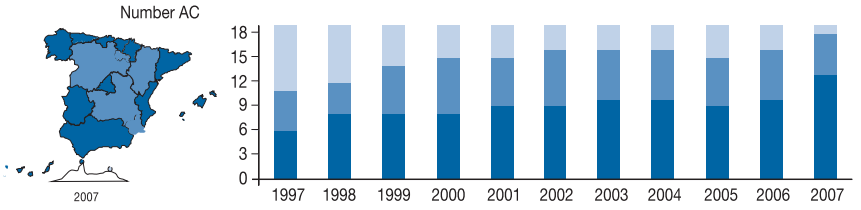
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AC	1,400.000	2,604,318	2,954,749	3,647,087	5,175,008	6,728,207	6,790,861	6,332,020	6,403,185	8,834,105	8,502,441	8,225,529	9,626,905
SGIP		1,576,544	1,700,000	1,410,000	1,800,00	1,776,000	1,700,000	2,000,000	1,950,000	2,350,000	2,375,000	2,510,000	2,655,000
CJE				100,000	400,000	700,000	1,170,000	1,291,972	1,711,644	1,440,046	864,339	1,339,219	1,450,570

Note: AC (Autonomous Comunity), SGIP (Sub-Directorate General of Penitentiary Institutions) and CJE (Youth Council of Spain)

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

Over the past few years, priority has been given to efforts aimed at promoting early detection of HIV in different contexts and populations, and in terms of programmes for HIV prevention in men who have sex with men (MSM), three new autonomous communities started up programmes in 2007.

Figure 4.12. Programmes for the prevention of HIV infection in men with homosexual practices. 1997-2007

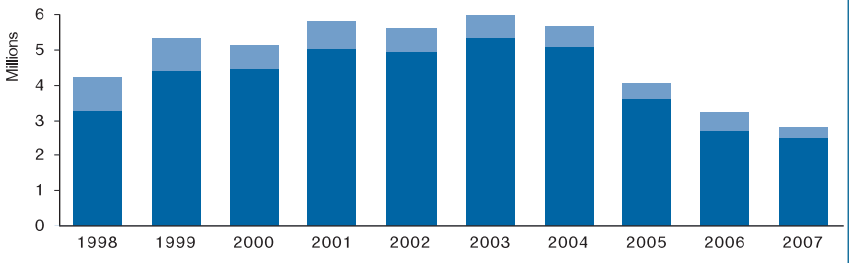


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Has none or has not informed	8	7	5	4	4	3	3	3	4	3	1
Occasional activities	5	4	6	7	6	7	6	6	6	6	5
Programme	6	8	8	8	9	9	10	10	9	10	13

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

In 2007, the total number of needle exchange programmes (NEPs) was 200, a figure similar to the preceding year but lower than the 261 of 2004. Also, the number of declared needle exchange sites was similar to that of the preceding year, with a total of 1458.

Figure 4.13. Sterile injection material distributed by NEPs and pharmacies. 1997-2007



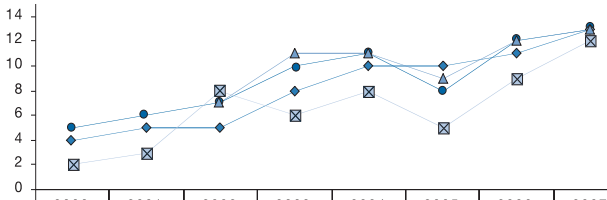
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
TOTAL	4.244.470	5.320.360	5.157.150	5.809.870	5.630.150	5.939.830	5.662.360	4.014.250	3.232.770	2.802.230
Kits subsid sale	976.214	891.252	675.572	761.651	705.741	625.965	584.496	437.978	535.860	294.959
Syringes /Kits	3.268.260	4.429.110	4.481.580	5.048.210	4.924.410	5.313.870	5.077.860	3.576.270	2.696.910	2.507.271

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

The quantity of syringes or kits distributed free of charge in 2007 decreased very slightly with respect to 2006 while distribution through subsidised sales has been reduced to almost half, representing a little more than 10% of the injection equipment distributed at the NEPs and in pharmacies, in that same year.

In 2007 the number of autonomous communities that conduct HIV prevention programmes targeting immigrants remained stable.

Figure 4.14. Number of autonomous communities with HIV prevention programmes for immigrants by geographic area of origin. 2000-2007.



	2000	2001	2002	2003	2004	2005	2006	2007
Sub-Saharan Africa	5	6	7	10	11	8	12	13
Latin America	4	5	5	8	10	10	11	13
North Africa			7	11	11	9	12	13
Others	2	3	8	6	8	5	9	12

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

As for funds provided by the autonomous communities, it is estimated that in 2007 the total budget devoted to HIV prevention, psychological and social support for affected people was slightly over €32 million (this figure does not take into account the health care expenses paid by the central government or by the autonomous communities).

Table 4.9. Total budget in Euros allocated to HIV prevention, psychological and social support of affected persons. 1999 - 2007

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Secretariat Plan AIDS Direct Activities	5,694,207	6,036,651	6,036,904	6,410,300	6,109,790	6,122, 030	6,121,240	6,126,000	6,226,000
Transfers Min Health- AC	4,627,793	4,720,349	4,808,096	4,808,100	4,808,099	4,808,100	4,808,100	4,808,100	4,808,100
Subsidies Min Health-NGOs	920,000	943,589	943,733	943,730	943,730	1,003,830	1,603,830	3,152,000	4,152,000
Subsidies Min Labour-NGOs	2,990,560	3,350,012	2,788,215	2,649,321	2,651,121	2,766,292	2,773,598	2,879,194	2,923,694
Subtotal Central. Government *	14,232,560	15,050,601	14,576,948	14,811,451	14,512,650	14,700,252	15,306,768 + 4.12%	16,965,294 +10.83%	18,109,794 +6.74%
AC AIDS Plans Direct Activities	3,699,017	3,607,697	5,650,507	5,139,702	5,014,636	6,251,638	6,160,249	5,153,502	5,656,629
AC AIDS Plans- NGOs	1,587,000	2,863,922	3,279,156	3,681,613	4,172,150	4,327,313	5,852,761	7,574,267	8,273,264
Subtotal Autonomous. Governments**	5,286,017	6,471,619	8,929,663	8,821,315	9,186,786	10,578,951	12,013,010 + 13.5%	12,817,769 + 6.7%	13,929,893 + 8.7%
TOTAL	**19,518,577**	**21,522,220**	**23,506,611**	**23,632,766**	**23,699,436**	**25,279,203**	**27,319,778 + 8.07%**	**29,783,063 + 9%**	**32,039,687 + 7.58%**

Note: *Does not include personnel costs

**Does not include personnel costs of 7 autonomous comunity (Asturias, Cantabria, Castilla-La Mancha, Castilla y León, Extremadura, Ceuta and Melilla)

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

Similarly, since 1994 the Ministry of Health and Social Policy has been funding, on an annual basis, HIV and AIDS prevention and control programmes, carried out by non-governmental organisations (NGOs) that operate on the state level. Ministerial Order SCO/4062/2007, of 21 December 2007, was published on 16 January 2008 to call for applications for financial grants to not-for-profit institutions of any type, for funding programmes aimed at AIDS prevention and control in 2008, with a budget of €4,152,000 available.

The distribution of the funds by type of priority is listed in Table 4.10.

Table 4.10. Projects and amount requested/granted, by type of priority. 2008

Type	Projects Requested	Amount Requested	%	Projects Budgeted	Amount Budgeted	%
Prevention	85	€12,581,142.39	76.3	53	€3,210,000.00	77.3
Research	10	€539,789.95	3.3	1	€24,000.00	0.6
Gathering	22	€1,148,725.17	7.0	10	€369,500.00	8.9
Co-ordination	4	€454,235.42	2.8	4	€250,000.00	6.0
Training	22	€1,315,460.27	8.0	9	€198,500.00	4.8
Reinforcement	11	€451,092.81	2.7	5	€100,000.00	2.4
Others	0	0 €	0.0	1	€0.00	0.0
Total	**154**	**€16,490,446.01**	**100**	**82**	**€4,152,000.00**	**100**

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

Ministerial Order TAS/592/2008, of 29 February 2008, called for applications for grants and subsidies for social co-operation and volunteer programmes to be funded by the fiscal allocation marked voluntarily by taxpayers on their Personal Income Tax Return. The budget available for HIV/AIDS as a result totalled €3,047,119. The types of programmes subsidised by these funds are: creation and maintenance of refuges for AIDS patients; creation and maintenance of housing for purposes of social insertion; and support programmes for patients and families affected by HIV.

Table 4.11. Social support programmes for people with HIV/AIDS funded by Personal Income Taxes. 2008

Type of programme	Amount	%	Number of Programmes	% Programmes	Number of Programme Sites
Support for patients and families affected by HIV/AIDS	1,421,454.00	46.65	29	55.77	79
Creation and maintenance of refuges	1,403,853.00	46.07	19	36.54	31
Creation and maintenance of housing for social insertion	221,812.00	7.28	4	7.69	8
Total	**3,047,119.00**	**100.00**	**52**	**100.00**	**118**

Source: National AIDS Plan Secretariat. DG of Public Health. Ministry of Health and Social Policy

Finally, also deserving of special mention are the measures adopted by the autonomous communities and INGESA (the institute in charge of health services in Ceuta and Melilla) for the prevention and control of HIV/AIDS. They are listed in Table 4.12.

Table 4.12. Actions and progress in the implementation of HIV/AIDS plans and programmes

	ACTIONS PERFORMED
Andalucía	Publication of AIDS prevention materials and rapid diagnostic kits
Aragón	Publication of Programme to Prevent Consumption "Retomemos… Una propuesta para tomar en serio". Evaluation of Needle Exchange Programme developed in 1990
Asturias	Evaluation begins on AIDS Prevention Programme of Asturias 2003-2007 for subsequent updating
Baleares	Evaluation of HIV/AIDS Strategy and development of new programmes for early detection of new infections and to avoid social stigmatisation
Canarias	Annual evaluation of Regional AIDS Plan
Castilla y León	Monitoring of Sectoral Plan on prevention and control of AIDS and HIV-related infections
Castilla-La Mancha	Monitoring of Multi-sectoral Plan to combat HIV/AIDS infection. Beginning of HIV registry
Cataluña	Strengthen efforts in the reduction of delay in diagnosis, stigmatisation and discrimination within Multisectoral Plan against HIV/AIDS
Extremadura	Analysis of current situation prior to creation of new HIV/AIDS Action Plan
Galicia	Monitoring of Action Plan against HIV/AIDS , begun in 1981
Madrid	Monitoring of Plan of Actions to combat HIV/AIDS. Creation of report on sexual behaviour related to HIV infection in homosexual and bisexual men
Murcia	Monitoring of Programme on Information and Health Education about AIDS, begun in 1988
Navarra	Monitoring of Prostitution and AIDS Plan
País Vasco	Within the AIDS Prevention and Control Plan a working group was created on HIV and Sexually Transmitted Infections (STIs) in the group of men who have sex with men and a campaign took place on the prevention of HIV/AIDS and other STIs. Start up of Sidamedia, an AIDS information system. Piloting of rapid HIV test in pharmacies
Rioja	Monitoring of Regional AIDS Programme
Ceuta	Monitoring of AIDS/HIV Prevention and Control Programme, included in the Infectious Diseases Programme

Note: Includes the information provided by the autonomous communities and INGESA before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

Activities to improve research and the quality of care provided

To enhance the quality of care provided, in 2008 work continued in the direction already taken and 10 documents of Clinical Recommendations for the handling of HIV patients were initiated, of which six were finished by December 2008. Approximately 150 professionals and nine scientific societies participated in this project.

Also, two additional documents were drawn up, one about pregnancy and the other about adolescence, and eight medical articles were published in national journals. All of the aforementioned documents were distributed at the national level and in some cases at the international level.

Research into HIV/AIDS continues to be promoted by the National AIDS Plan Secretariat, mainly in the form of support provided to the Foundation for AIDS Research and Prevention in Spain (FIPSE) and to the AIDS Studies Group (GESIDA) of the Spanish Society of Infectious Diseases and Clinical Microbiology. In 2008 FIPSE made its ninth call for applications for grants for research projects, and funding was given to 20 of the projects that applied for funds, in basic, clinical and epidemiological research and the prevention and social areas. The FIPSE study on liver transplants in HIV patients in Spain is worthy of special mention. This study is considered a pioneering work at the international level. In 2008 two publications came to life: "Living longer and better. 25 years of HIV/AIDS in society" and "Manual on Biosecurity for HIV laboratories", based on work supported by FIPSE. GESIDA, for its part, has continued its research work, conducting follow-up of cohort studies initiated previously (8), undertaking other observational studies with antiretroviral drugs (4) and clinical trials (8).

International Co-operation Activities

Spain has been participating since 2001 in the ESTHER Project (Ensemble pour une Solidarité Therapèutique Hospitalière En Réseau), working jointly with the Ministries of Health of six Latin American countries: Ecuador, Honduras, El Salvador, Guatemala, Nicaragua and Colombia. In 2008, besides continuing the training activities already in place in these countries, the first edition of an on-line course for doctors in these countries was begun. The course was accredited by the Ongoing Training Commission of the Ministry of Health and Social Policy and is structured into eight modules with a total of 511 class hours. The National AIDS Plan Secretariat attends and participates regularly in European meetings, working groups and conferences (organised by ECDC, WHO, DG SANCO, etc.) and international conferences (Annecy Group, UN General Assembly Special

Sessions, Global Fund to Fight AIDS, Tuberculosis and Malaria, CROI, etc.). Standing out among these activities in 2008 is the Secretariat's participation in the 17th International AIDS Conference held in Mexico.

4.4 Environmental Health

Biocidal and Chemical Products

In Spain the Ministry of Health and Social Policy, through its Sub-Directorate General of Environmental and Occupational Health, is the competent authority for the registration and authorisation of biocidal products, and also for the evaluation of the risks for human health of chemical and phytosanitary products, as provided for in Regulation (EC) No 1907/2006, of the European Parliament and of the Council, of 18 December 2006, concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (the REACH regulation).

Most of the processes governed by this Regulation came into effect in June of 2008. Likewise, during this same year the committees of the European Chemicals Agency (ECHA) began functioning, with the participation of representatives of the Sub-Directorate General of Environmental and Occupational Health (Member State Committee and the Forum). Spain has also participated in various working groups: Security Officers Network of REACH-IT, the Risk Communication Network, Trainers' Training.

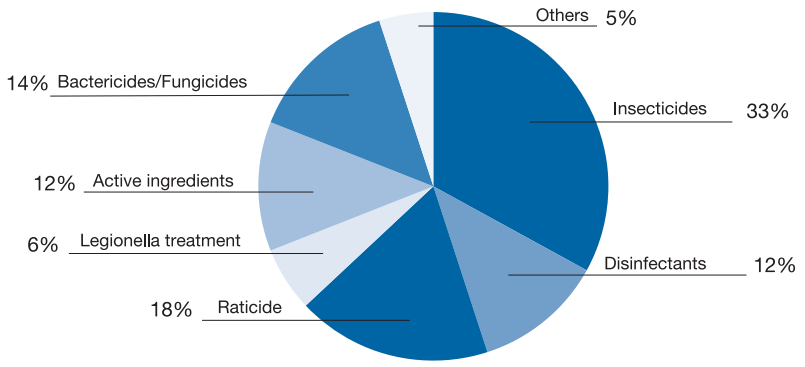
In 2008 the first steps were taken towards start-up of the REACH-IT information system; a database was created to manage information from the ECHA regarding the registered substances that are manufactured in or imported into Spain. Also, a bill was drafted to lay down provisions on the penalties for infringement, as called for in Regulation (EC) No 1907/2006.

In addition, information and training activities have been carried out for manufacturers, importers, social agents, the public bodies involved and users of chemical substances, about legislative and technical aspects of the REACH regulation, especially concerning the pre-registration process.

During 2008, a total of 2213 entries were made in the Register of Biocidal Products[14]. The number of products entered for the first time was 422 and there were 913 renewals, distributed as shown in the graph below. The other entries were modifications of previous entries (700) or the cancellation of registrations or the shelving of actions related to the application procedure (178).

14 Ministry of Health and Social Policy: Environmental and Occupational Health
http://www.msps.es/ciudadanos/saludAmbLaboral/home.htm

Figure 4.15. New entries or renewals in the Register of Biocidal Products



Source: Sub-Directorate General of Environmental and Occupational Health. DG of Public Health. Ministry of Health and Social Policy

In other areas, in 2008 an average of 65 consultations regarding biocidal products were addressed per week. These consultations were made in person, by telephone or in writing, by industry, autonomous communities and private individuals. Seventy-eight recognition reports have been issued, for subsequent registration at the Ministry of the Environment and Rural and Marine Environments. Fifty-nine of them were new recognitions and 19 were renewals of previous recognitions.

Throughout 2008 Spain, as rapporteur country, continued its task of evaluating the active biocidal substances adjudicated to it in the 2nd and 3rd lists of priority substances, in application of European biocide legislation, Commission Regulation (EC) No. 1451/2007 and Directive 98/8/EC (transposed by Royal Decree 1054/2002). In October of 2008, industry presented the dossiers corresponding to the 4th and final list of priority substances, a total of 24 biocide dossiers about different types of products, including disinfectants that work against Legionella in cooling towers.

Also in 2008 the Standing Committee on Biocidal Products voted on two of the substances adjudicated to Spain in the 1st List of Priority Substances. Both were included in Annex I of the European Biocidal Product Directive.

With regard to the ***notification of new chemical substances*** and in compliance with Royal Decree 363/1995, which regulates the registration of the said substances in order for them to be placed on the market in the European Union, in 2008 evaluations were made of 44 substances managed through the European Chemicals Agency.

Spain has received thirteen ***cover notes*** from the European Chemicals Agency, as part of the new chemical substance authorisation process. The cover notes include all of the documentation regarding notification in the European Union. This responsibility in the evaluation of chemical products has involved performing the following activities, as shown in Table 4.13.

Table 4.13. New chemical substances (European Union)

Evaluation of new substance notifications	815
Updates in notifications	1,057
Follow-up of notifications	288
Final proposals regarding classification and labelling	115
Total	2,275

Source: Sub-Directorate General of Environmental and Occupational Health. DG of Public Health. Ministry of Health and Social Policy

With regard to how the ***notifications*** are registered, according to Art. 24 of the REACH regulation, notification in accordance with Directive 67/548/EEC shall be considered a registration and the Agency shall assign it a registration number. For this purpose, the Agency has set up a REACH-IT application by which registrants can apply for such registration number. Up through 31 December 2008, a total of 32 registrants had requested and successfully obtained the registration number.

With regard to ***risk assessment and strategies for risk reduction in relation to existing substances***, in 2008 the EU published the results of the assessments of the two chemical substances [2-nitrotoluene (2-NT) and 2,4-dinitrotoluene (2,4-DNT)] adjudicated to Spain as rapporteur country, by Commission Regulation (EC) no. 2364/2000 concerning the fourth list of priority substances, and the recommendations regarding risk reduction (OJ C134, 31/05/2008, p. 4-9 and OJ L141, 31/05/2008, p. 20-21).[15]

With regard to ***biotechnology***, in 2008 Spain's National Biosafety Commission evaluated 100 dossiers of genetically modified organisms, of which 23 were for contained use facilities, 51 were for deliberate release, and 26 were for marketing.

15 European Chemical Substances Information System
http://ecb.jrc.ec.europa.eu/esis/index.php?PGM=ora

The Interministerial Commission on Genetically Modified Organisms voted on 3 marketing notifications, 27 deliberate release notifications and 4 notifications of facilities, using a written voting procedure.

Phytosanitary Products

In 2008, a total of 463 reports on the risk assessments of phytosanitary products were drawn up. Such reports are required in order to obtain national authorisation by the Official Register of Phytosanitary Products of the Ministry of the Environment and Rural and Marine Environments, as provided by current legislation. In fulfilment of Royal Decree 3349/83, a total of 316 assessments were conducted, as detailed in Table 4.14.

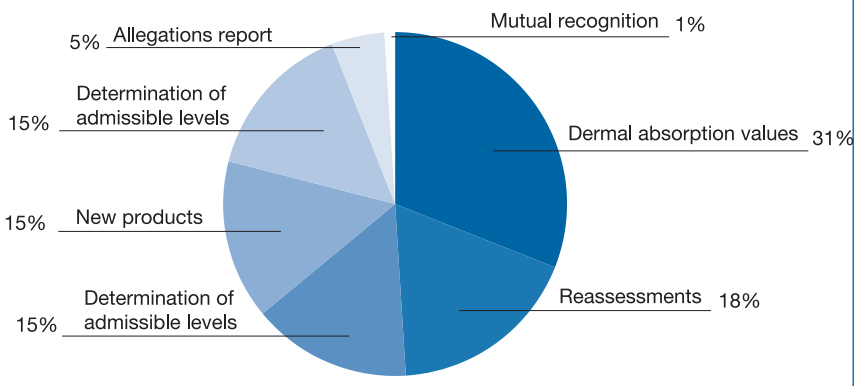
Table 4.14. Assessments made under Royal Decree 3349/83. 2008

Risk assessments for new products	236 (75%)
Assessment of products already on the market because of composition changes, modifications in authorisation conditions	57 (18%)
Risk assessments due to requests/allegations by holders or to receipt of new documentation	6 (2%)
Evaluation of applications for non-professional authorisation (household use)	17 (5%)
Total	**316**

Source: Sub-Directorate General of Environmental and Occupational Health. DG of Public Health. Ministry of Health and Social Policy

In relation to Royal Decree 2163/94, of 4 November 1994, which puts in place the harmonised European system for authorising the marketing and use of phytosanitary products (Directive 91/414/EEC), 147 assessment reports were written. This legislation requires, in addition to the risk assessment report, that the actions indicated in the following graph be performed.

Figure 4.16. Assessments conducted under Royal Decree 2163/94. 2008



Source: Sub-Directorate General of Environmental and Occupational Health. DG of Public Health. Ministry of Health and Social Policy

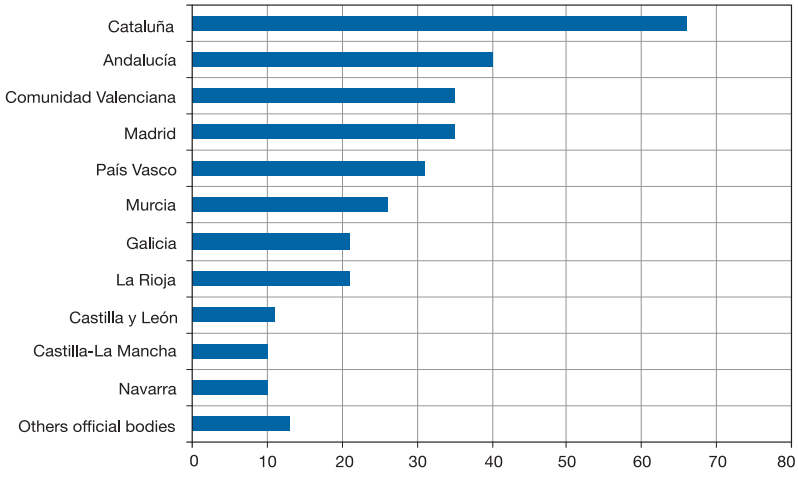
Activities of the National Network of Surveillance, Inspection and Control of Chemical Products

In relation to the ***Chemical Information Exchange Network***, in 2008 a total of 363 communications took place, involving 207 products. Of the total, there were 213 incidences (59%), 83 responses and resolutions (23%), 38 notifications (10%), 27 follow-up, information exchanges and referrals (7%) and 2 consultations (1%). The distribution of the communications by autonomous community is shown in Figure 4.18.

With regard to the ***toxicovigilance system***, in 2008 a total of 390 cases of poisoning or toxic accidents were attended by the urgent care services of 13 notifying hospitals, with an average age of 38 years and a standard deviation of ± 20 years. As to distribution by sex, 203 (52.05%) were men and 187 (47.95%) were women.

In addition, information sheets explaining the appropriate ***medical treatment*** in the case of intoxication by 2229 products have been compiled: 388 phytosanitary products and 1841 biocidal products. These sheets were sent to the National Toxicology Institute to be used to inform professionals about the treatment and care that should be given in cases of poisoning.

Figure 4.17. Distribution of communications through the Chemical Information Exchange Network, by autonomous community. 2008



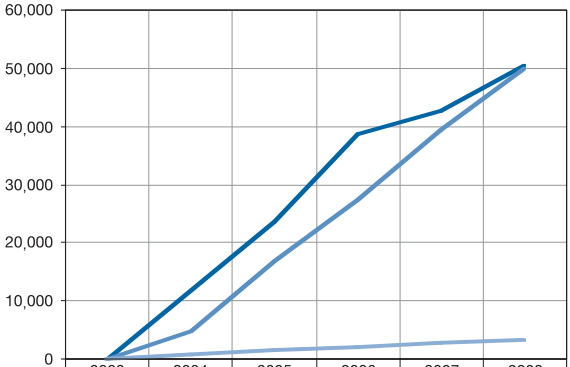
Source: Sub-Directorate General of Environmental and Occupational Health. DG of Public Health. Ministry of Health and Social Policy

Information Systems on Water Quality and Sanitation

The National Information System on Drinking Water (SINAC) gathers data about the characteristics of the supplies and quality of water for human consumption in all water supply zones of over 50 inhabitants. The users of this system are the Ministry of Health and Social Policy, the autonomous communities, municipalities, water supply companies and control laboratories. It is supported by a web application[16]. The progress of SINAC implementation since its launching five years ago has been constant and in some cases its growth has been exponential, as shown in Figure 4.19.

16 SINAC website http://sinacformacion.msc.es/

Figure 4.18. Evolution of the data of the National Information System on Drinking Water (SINAC). 2003-2008



	2003	2004	2005	2006	2007	2008
Infraestructures	0	11 910	23,538	38,778	42,590	50,406
Sampling points	0	4,754	16,786	27,286	39,364	49,849
Users	60	836	1,471	2,127	2,674	3,154

Source: Sub-Directorate General of Environmental and Occupational Health. DG of Public Health. Ministry of Health and Social Policy

The Water Sanitation and Quality Section of the Sub-Directorate General of Environmental and Occupational Health administers the application and also co-ordinates the Help Centre for Users. In 2008, there were ***789*** consultations made by telephone and ***265*** consultations made in writing.

The ***Executive Drinking Water Information System (ALDAGUA)*** is inside the data repository of the SNS. Its users are the Ministry, the autonomous communities and the large water supply companies. It is supported by a web application[17] and every month it incorporates the information documented in SINAC.

At the end of 2008 it had ***57*** registered users: 11 from the Ministry, 19 from the autonomous communities and 27 from water supply companies and city councils. The Water Sanitation and Quality Section administers the system's users and co-ordinates the Help Centre for Users. It received ***28*** consultations made by telephone and ***3*** consultations made in writing. The ALDAGUA tables are used to create the national reports on drinking water.

The National Information System on Water for Bathing (NAYADE) is a water sanitation information system containing data on the

17 ALDAGUA website https://repositorio.msc.es/risns

characteristics of beaches and the quality of water for bathing, both inland and maritime. Users of this system belong to the Ministry of Health and Social Policy and to the Ministry of the Environment, autonomous communities, hydrographic areas, control laboratories and local governments. It is based on the criteria set forth in Royal Decree 1341/2007, of 11 October 2007, on bathing water quality, and Directive 2006/7/EC on the management of bathing water quality (to see the NAYADE website, go to address specified in note below[18]). In 2008, 25 co-ordination meetings took place and ***425*** telephone consultations and ***100*** written consultations were received and answered.

Also in 2008, a total of ***210*** laboratories certified by UNE EN ISO 9001 and 93 laboratories accredited by UNE EN ISO 17.025 were managed.

Programmes concerning physical environmental risk

The aim of the National Plan for Prevention of the Effects of ***Excessive Temperatures*** on Health is to put in place the measures necessary to reduce the health impacts associated with extreme temperatures and to co-ordinate the relevant central government institutions. The Plan gathers predictive information regarding air temperature, variations in health care demand and daily information on the quantitative changes in mortality, and it makes proposals as to actions that can be undertaken by the autonomous communities and local governments.

One of the priority actions of the Plan is to alert health authorities and citizens about possible risk situations, with sufficient advance notice. For this purpose, the Ministry of Health and Social Policy informs the autonomous communities, on a daily basis, of the temperature predictions (highs and lows) made by the Spanish Meteorology Agency. The thermal thresholds that define the various levels of alert have been reviewed: level 0 or green (no risk), level 1 or yellow (low risk), level 2 or orange (medium risk) and level 3 or red (high risk). Likewise, a measure has been activated by which SMS messages are sent to the authorities of autonomous communities in the event of orange or red alerts.

The most representative data from the map of alert levels during the summer of 2008 is shown in Figure 4.20.

18 NAYADE website http://nayade.msc.es

Figure 4.19. Evolution of the map of alert levels. 2008

	LEVEL 0	LEVEL 1	LEVEL 2	LEVEL 3	TOTAL
TOTALS	6,291	50	3	0	6,344
	99.16%	0.78%	0.04%	0%	100%

Source: Sub-Directorate General of Environmental and Occupational Health. DG of Public Health. Ministry of Health and Social Policy

The health services of the autonomous communities informed the Ministry of Health and Social Policy of a total of three deaths (all men) attributable to heat stroke. This figure is lower than the number of deaths in the summer of 2007 (9). The deaths occurred in Cataluña (2) and Baleares (1).

5 Pharmaceuticals and health products

5.1 Pharmaceutical service

The General Social Security Act (consolidated text approved by virtue of Decree 2065/1974) includes pharmaceutical benefits as part of the health care protection provided by the Social Security system.

The Spanish Constitution of 1978 states in Art. 41 that public authorities will maintain the public system of Social Security for all citizens.

Spanish Law 16/2003, of 28 May 2003, on the Cohesion and Quality of the National Health System (hereinafter SNS, for its acronym in Spanish) establishes that the general catalogue of SNS services is intended to guarantee the basic and common conditions for an appropriate level of continuing, comprehensive care throughout Spain, and it indicates that these health care services will be provided through the common benefits package established at the state and autonomous community levels. Pharmaceutical benefits are among those specified in the catalogue.

Law 29/2006, of 26 July 2006, on Guarantees and Rational Use of Pharmaceuticals and Health Products, which replaces Law 25/1990 on Pharmaceuticals, strengthens the guarantees of pharmaceutical service quality and safety throughout the SNS and furthers the rational use of pharmaceuticals, modifying the reference price system and the selective financing principle for pharmaceuticals and health products and encouraging the use of generic medicines.

Royal Decree 1030/2006, of 15 September 2006, establishes the common benefits package of the SNS and the procedure for its revision. The services contained in this package are considered the basic and common services, which means they are the ones necessary to provide appropriate, comprehensive and continuing health care for all SNS users. Appendix V establishes the contents of the common benefits package for the pharmaceutical service.

According to the explanatory preamble of Law 29/2006 and as established in Appendix V of Royal Decree 1030/2006, the pharmaceutical service includes pharmaceuticals and health products and the group of actions designed to ensure that patients receive them according to their clinical needs, in the precise dosage for their individual requirements, for an appropriate time period and at the lowest cost possible to them and to the community.

Contents

Pharmaceutical benefit entitlements differ according to whether or not the patient is hospitalised.

In the case of ***non-hospitalised patients***, pharmaceutical benefits include medical indication, prescription and dispensation of the following products:

- Authorised ***pharmaceuticals***, whose financing and dispensing conditions in the SNS have been established in accordance with current laws and regulations.
- ***Health products*** whose financing and dispensing conditions in the SNS have been established in accordance with current laws and regulations.
- ***Pharmaceutical compounds and medicinal preparations*** prepared by dispensing pharmacies in accordance with the national formulary and which comply with the requisites of the Spanish Royal Pharmacopoeia, as well as current laws and regulations, under the terms specified in the corresponding agreements signed between the autonomous community health administrations and dispensing pharmacies.
- ***Personalised anti-allergy and bacterial vaccines*** which comply with current laws and regulations.

And the following are excluded from pharmaceutical benefits:

- Products for cosmetic or dietetic use, mineral water, mouthwash, toothpaste and other similar products.
- Over-the-counter medicines.
- Pharmaceuticals assigned to therapeutic groups or subgroups that are excluded from financing by current laws and regulations.[1]
- Homeopathic medicines.
- Health products advertised directly to the general public.

In the case of ***hospitalised patients***, pharmaceutical benefits include the pharmaceutical products that a patient needs, in accordance with Appendix III, on the common benefits package for specialised care, of Royal Decree 1030/2006, of 15 September 2006.

Medical indication, prescription and dispensing

Pharmaceutical benefits must be provided in accordance with criteria that promote the rational use of pharmaceuticals.

The prescription of medicines and other products included in pharmaceutical benefits, when they are dispensed through pharmacies, must be done with the official SNS medical prescription model, as laid down in current laws and regulations.

1 Royal Decree 1348/2003, of 31 October 2003, adapts the anatomical classification of pharmaceuticals to the ATC classification system and its Appendix II lists the therapeutic groups and subgroups excluded from public financing.

User contribution

User contribution to the payment of pharmaceuticals and health products provided by the SNS is regulated in accordance with the criteria set forth in Law 29/2006, of 26 July 2006, on Guarantees and Rational Use of Pharmaceuticals and Health Products.

- Regular co-payment: In general, the contribution that users must make at the time the medicine is dispensed in the pharmacy is 40% of the retail price.
- Reduced co-payment: 10% of the retail price, or a maximum co-payment of €2.64/pack, an amount which may be revised by the Ministry of Health and Consumer Affairs, according to current laws and regulations.

This type of co-payment must be paid in the following situations:

- Medicines for the treatment of chronic or serious illnesses in the therapeutic groups and subgroups included in current law and regulations and in accordance with the established conditions.[2]
- Health products belonging to the groups established by law.[3]
- Pharmaceuticals supplied to AIDS patients by the SNS using official prescriptions.[4]

Exempt from co-payment. In the following cases:

- Pension holders and similar groups, toxic syndrome sufferers and persons with disabilities, in the situations provided for in their specific regulations.
- Treatments due to workplace accidents and occupational diseases.
- Products that are dispensed to the user at health care facilities.

The agreements signed by the regional health administrations with the representatives of the professional associations of pharmacists regulate the conditions in which the SNS pharmaceutical service must be provided through legally authorised pharmacies.

2 Royal Decree 1348/2003, of 31 October 2003, adapts the anatomical classification of pharmaceuticals to the ATC classification system and its Appendix III lists the therapeutic groups and subgroups with reduced co-payments.

3 Royal Decree 9/1996, of 15 January 1996, which regulates the selection of patient care materials, their financing with Social Security funds or state funds allocated to health care and the guidelines for supplying and dispensing them to non-hospitalised patients, establishes the patient care materials with reduced co-payment: (inhalation devices, probes, urine collection bags, penis clamps and accessoriecolostomy bags, ileostomy bags, urostomy bags, ostomy accessories, ostomy dressings, ostomy irrigation systems and accessories, continent colostomy systems and laryngectomy and tracheotomy cannulas).

4 Royal Decree 1867/1995, of 17 November 1995, on pharmaceutical benefits for AIDS patients.

Article 96 of Law 29/2006, of 26 July 2006, on Guarantees and Rational Use of Pharmaceuticals and Health Products calls for "collaboration between dispensing pharmacies and the SNS."

5.2 Analysis of pharmaceutical consumption based on SNS prescriptions

The data on pharmaceutical service consumption for out-of-hospital care was obtained from the information contained in official SNS prescriptions invoiced in each autonomous community. This information was provided by the autonomous communities through the Alcántara computer application, as required by the national statistical programme.

Quantitative analysis

In most OECD countries, in recent years the relative importance of pharmaceutical expenditure (not including hospital expenditure) has grown with respect to total health expenditure. Table 5.1 shows the evolution in pharmaceutical expenditure as a percentage of total health expenditure from 1995 to 2008. Spain, along with Portugal and Italy, belongs to the group of countries in which pharmaceutical expenditure represents a high proportion of health expenditure. In Spain it increased from 19.2% in 1995 to 23.2% in 2003, to later decrease to 21% in 2007. Both Italy and Portugal show a similar tendency, with the percentage of pharmaceutical expenditure in Italy decreasing to 18.2% in 2008, after reaching 22.5% in 2002. Among the countries analysed, Spain had the highest relative level of pharmaceutical expenditure in 2007, although it is important to bear in mind that Portugal's data for 2007 is not yet available, and is likely to be similar to Spain's data. Other countries such as Canada, Finland, France and Germany show an intermediate proportion for pharmaceutical expenditure for that year, between 14% and 17% (18.1% in Canada in 2008), with moderate growth in the last decade and a stabilisation of this figure in recent years in Finland and France. Finally, another group of countries which includes Denmark, Norway, Iceland, Sweden, Switzerland and the United States has a considerably lower proportion of pharmaceutical expenditure, between 8% and 13%, with a trend towards growth in Iceland and the United States, while the other countries in this group are more stable. Therefore, although there are some differences among countries, pharmaceutical expenditure is a very significant part of total health expenditure. This justifies the intervention of regulators and public treasurers in pharmaceutical markets to achieve two goals: guarantee citizens' access to therapeutic advances that can help to improve their health and maintain the financial sustainability of the public health care system.

Table 5.1. Evolution of pharmaceutical expenditure as a percentage of total health expenditure. 1995-2008

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Canada	13.8	14.0	14.8	15.3	15.6	15.9	16.2	16.7	17.0	17.3	17.2	17.4	17.7	18.1
Denmark	9.1	8.9	9.0	9.0	8.7	8.8	9.2	9.8	9.1	8.7	8.6	8.5	8.6	
Finland	12.7	13.2	13.6	14.0	14.8	14.7	15.0	15.2	15.3	15.5	15.5	14.3	14.1	
France	15.0	14.8	15.0	15.5	16.0	16.5	16.9	16.8	16.7	16.8	16.7	16.3	16.3	
Germany	12.9	13.0	13.1	13.6	13.5	13.6	14.2	14.4	14.5	13.9	15.1	14.8	15.1	
Iceland	13.4	14.0	15.1	14.1	13.6	14.5	14.1	14.0	15.2	15.4	14.4	14.2	13.5	
Italy	20.7	21.1	21.2	21.5	22.1	22.0	22.5	22.5	21.8	21.2	20.2	19.9	19.3	18.2
Norway	9.0	9.1	9.1	8.9	8.9	9.5	9.3	9.4	9.2	9.4	9.1	8.7	8.0	7.6
Portugal	23.6	23.8	23.8	23.4		22.4	23.0	23.3	21.4	21.8	21.6	21.8		
Spain	19.2	19.8	20.8	21.0	21.5	21.3	21.1	21.8	23.2	22.7	22.4	21.7	21.0	
Sweden	12.3	13.6	12.4	13.6	13.9	13.8	13.9	14.0	13.8	13.9	13.7	13.7	13.4	
Switzerland	10.1	10.2	10.5	10.4	10.6	10.8	10.7	10.4	10.6	10.5	10.6	10.4	10.3	
United States	8.7	9.0	9.5	10.0	10.8	11.3	11.7	12.0	12.1	12.2	12.0	12.2	12.0	

Source: OECD Health Data 2009

Focusing the analysis on Spain, public pharmaceutical expenditure based on invoiced SNS prescriptions (which is the total amount spent in pharmacy (calculated at retail price with VAT), less user co-payments and less the co-payments from dispensing pharmacies in application of Royal Decree Law 5/2000 and Royal Decrees 2402/2004 and 823/2008), increased from €9,515.35 million in 2004 to €11,971.96 million in 2008, although its proportion with respect to total health expenditure in percentage terms decreased from 20.53% in 2004 to 18.59% in 2007 (Table 5.2). The percentages in this table do not coincide with the data in Table 5.1, because the OECD data take into account the costs of long-term care units and prescription expenditure for civil servants' mutual funds, which the data in Table 5.2 do not include.

Table 5.2. Total health expenditure and total pharmaceutical expenditure. 2004-2008

	2004	2005	2006	2007	2008
Total public health expenditure (millions of Euros)[1]	46,348.68	50,586.84	55,682.06*	60,189.07*	**
Pharmaceutical expenditure on SNS prescriptions (millions of Euros)[2]	9,515.35	10,051.33	10,636.06	11,191.13	11,970.96
% Pharmaceutical expenditure/ Total health expenditure	20.53	19.87	19.10	18.59	

Note: *Provisional data
**This figure was not available at time of report
Source: 1 Public expenditure on health statistical report (actual expenses)
2 Medical prescription invoicing statistics

Table 5.3 presents the evolution of the main SNS prescription invoicing data over the last 6 years, from 2003 to 2008, in the national total: number of prescriptions invoiced, pharmaceutical expenditure, total amount spent in pharmacy and user co-payments. During 2002 and 2003, strong growth occurred in pharmaceutical expenditure while since 2004, growth has been slower. Over the last year, pharmaceutical expenditure grew 6.97% with respect to 2007. The number of prescriptions invoiced confirms a slowdown in growth in 2008, in which growth was 5.53%. This behaviour is principally attributable to measures adopted in 2008, such as modifications in commercial margins related to distribution and dispensing pharmaceuticals (Royal Decree 823/2008, of 16 May 2008), the creation of new groups of medicines and their reference prices and the revision of those already in existence (Order/SCO/3803/2008, of 23 September 2008), as well as programmes for the rational use of pharmaceuticals put in place by the autonomous communities.

User co-payments for the period analysed decreased in terms of their percentage of the total amount spent in pharmacy. In 2008, user contribution in payments for pharmaceutical products was 5.89% of the total amount spent in pharmacy, while in 2003 it was 6.85% (Table 5.3).

Table 5.3. Evolution of the main data on SNS prescription invoicing

	PRESCRIPTIONS Millions of units		EXPENDITURE Millions of Euros		TOTAL RP* Millions of Euros		USER CO-PAYMENTS Millions of Euros		
YEAR		%Δ YoY		%Δ YoY		% Δ YoY		%Δ YoY	% CO-PAY/ TOTAL RP*
2003	706.22	6.82	8,941.12	12.14	9,927.33	12.58	679.73	11.86	6.85
2004	728.68	3.18	9,515.36	6.42	10,499.93	5.77	669.17	-1.55	6.37
2005	764.63	4.93	10,051.33	5.63	11,105.10	5.76	694.80	3.83	6.26
2006	796.02	4.10	10,636.06	5.82	11,757.73	5.88	720.42	3.69	6.13
2007	843.37	5.95	11,191.07	5.22	12,377.05	5.27	749.28	4.01	6.05
2008	890.04	5.53	11,970.96	6.97	13,241.82	6.99	780.28	4.14	5.89

Note: *TOTAL RP refers to the total amount spent in pharmacy calculated at retail price with VAT
Source: Medical prescription invoicing statistics

Table 5.4 provides the data broken down by autonomous community for 2008. As regards the number of prescriptions, the lowest percentage increases in 2008 were recorded in Extremadura (3.94%) and Aragón (4.47%), while Canarias and Andalucía had the largest increases (7.94% and 6.53% respectively). Regarding expenditure and the total amount spent in pharmacy, Madrid had the lowest year-on-year increases in 2008 (5.72% and 5.66% respectively), while Melilla recorded the highest increases (13.49% and 13.44%). With respect to user co-payments, Asturias and Castilla y León were the autonomous communities where user co-payments represent the smallest proportion of the total amount spent in pharmacy (4.57% and 5.12%) while Ceuta and Madrid recorded the highest (7.28% and 6.92%).

Table 5.4. Evolution of the main data on SNS prescriptions invoiced by autonomous community. 2008

	2008							
AUTONOMOUS COMMUNITY	PRESCRIPTIONS Millions of units	%Δ 08/07	EXPENDITURE Millions of Euros	%Δ 08/07	TOTAL RP* Millions of Euros	%Δ 08/07	CO-PAYMENT Millions of Euros	% CO-PAY./ TOTAL RP*
Andalucía	163.23	6.53	1,955.95	6.85	2,163.90	6.84	135.26	6.25
Aragón	27.20	4.47	391.32	8.05	430.17	7.80	23.79	5.53
Asturias	23.79	4.62	338.52	6.95	372.76	6.97	17.02	4.57
Baleares	15.30	4.91	211.41	6.97	235.62	7.08	15.60	6.62
Cantabria	11.20	5.42	153.84	7.86	169.6	7.91	9.32	5.50
Castilla-La Mancha	42.05	5.70	583.97	8.71	639.11	8.74	36.76	5.75
Castilla y León	49.41	5.02	704.48	7.14	764.46	7.13	39.15	5.12
Cataluña	143.06	5.20	1,841.17	6.00	2,030.37	5.92	109.48	5.39
Canarias	38.24	7.94	531.58	9.28	598.83	9.44	39.61	6.61
Extremadura	23.69	3.94	329.43	6.12	361.18	6.06	21.85	6.05
Galicia	60.12	5.19	869.44	6.87	969.51	7.01	53.67	5.54
Madrid	97.99	4.91	1,253.15	5.72	1,386.65	5.66	96.01	6.92
Murcia	28.25	5.71	416.09	7.97	467.80	8.05	29.56	6.32
Navarra	11.34	5.01	160.14	5.98	172.82	5.97	11.16	6.46
Comunidad Valenciana	106.97	5.82	1,557.28	7.71	1,731.44	7.85	99.90	5.77
País Vasco	40.35	4.81	563.04	6.00	625.54	6.04	34.35	5.49
Rioja	5.83	5.18	84.23	9.13	93.36	9.17	5.74	6.14
Ceuta	1.10	4.96	14.35	8.42	16.13	8.61	1.17	7.28
Melilla	0.93	6.24	11.59	13.49	12.82	13.44	0.88	6.90
NATIONAL TOTAL	**890.04**	**5.53**	**11,970.96**	**6.97**	**13,241.82**	**6.99**	**780.28**	**5.89**

Note: *TOTAL RP refers to the total amount spent in pharmacy calculated at retail price with VAT
Source: Medical prescription invoicing statistics

The indicators for average expenditure per prescription and prescriptions per person covered are shown in Table 5.5 for 2003 to 2008. During this six-year period, the increase in average expenditure per prescription was reduced as a consequence of - in addition to the measures cited above - the Ministry of Health and Social Policy's pricing policies and the system of reference prices. The average expenditure per prescription increased from €12.66 in 2003 to €13.45 in 2008.

Expenditure and prescriptions per person covered have experienced increases year after year; in 2008, annual expenditure per person covered was €272.52 and the number of prescriptions was 20.26 (Table 5.5).

Table 5.5. Average expenditure per prescription and expenditure and prescriptions per person covered. 2003-2008

	Average expenditure per prescription (Euros)		EXPENDITURE PER PERSON COVERED (Euros)		PRESCRIPTIONS PER PERSON COVERED (Units)	
YEAR		%Δ YoY		%Δ YoY		%Δ YoY
2003	12.66	5.01	222.25	9.69	17.55	4.48
2004	13.06	3.15	233.69	5.15	17.90	1.97
2005	13.15	0.67	241.23	3.22	18.35	2.54
2006	13.36	1.65	250.77	3.96	18.77	2.27
2007	13.27	-0.69	260.47	3.87	19.63	4.59
2008	13.45	1.36	272.52	4.63	20.26	3.22

Source: Medical prescription invoicing statistics. Population with pharmaceutical benefits (data prepared by the Bureau of Economic Analysis and the Cohesion Fund)

The data for the indicators analysed above corresponding to 2008 and broken down by autonomous community are shown in Table 5.6. Average expenditure per prescription ranges from €11.98 in Andalucía to €14.73 in Murcia. Andalucía has the lowest year-on-year increase for this expenditure (0.30%), while Melilla records the highest percentage increase (6.83%). In both expenditure and the number of prescriptions per person covered, Galicia, Asturias, Extremadura and Valencia have the highest numbers, while Melilla, Baleares and Madrid have the lowest.

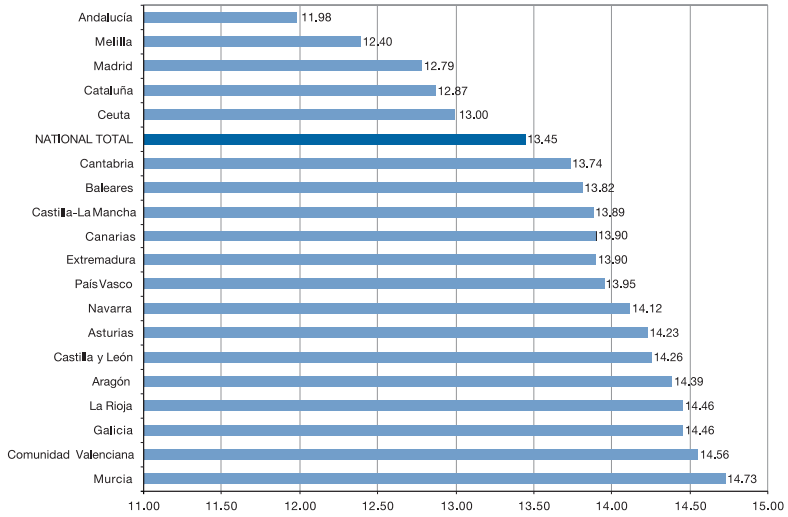
Table 5.6. Average expenditure per prescription and expenditure and prescriptions per person covered. 2008

AUTONOMOUS COMMUNITY	2008					
	Average expenditure per prescription (Euros)		PRESCRIPTIONS PER PERSON COVERED (units)		PRESCRIPTIONS PER PERSON COVERED (units)	
		%Δ YoY		%Δ YoY		%Δ YoY
Andalucía	11.98	0.30	252.87	4.86	21.10	4.54
Aragón	14.39	3.43	313.53	5.44	21.79	1.94
Asturias	14.23	2.23	328.47	6.40	23.08	4.08
Baleares	13.82	1.97	204.33	2.62	14.79	0.64
Cantabria	13.74	2.31	276.44	6.03	20.12	3.63
Castilla-La Mancha	13.89	2.85	300.73	5.03	21.65	2.12
Castilla y León	14.26	2.02	295.88	5.79	20.75	3.70
Cataluña	12.87	0.76	256.74	3.76	19.95	2.98
Canarias	13.90	1.24	268.72	6.45	19.33	5.15
Extremadura	13.90	2.10	321.07	5.19	23.09	3.02
Galicia	14.46	1.59	330.52	6.40	22.85	4.73
Madrid	12.79	0.77	212.90	2.18	16.65	1.39
Murcia	14.73	2.14	309.50	5.75	21.01	3.54
Navarra	14.12	0.93	267.33	3.42	18.93	2.47
Comunidad Valenciana	14.56	1.78	322.11	4.48	22.13	2.65
País Vasco	13.95	1.14	267.30	5.15	19.16	3.97
Rioja	14.46	3.75	279.11	5.98	19.30	2.15
Ceuta	13.00	3.29	228.29	7.32	17.56	3.90
Melilla	12.40	6.83	200.92	9.83	16.21	2.81
NATIONAL TOTAL	**13.45**	**1.36**	**272.52**	**4.63**	**20.26**	**3.22**

Source: Medical prescription invoicing statistics. SNS covered population (data prepared by the Bureau of Economic Analysis and the Cohesion Fund)

Figure 5.1 presents the data for average expenditure per prescription in the autonomous communities.

Figure 5.1. Average expenditure per prescription (Euros) by autonomous community. 2008



Source: Medical prescription invoicing statistics

Qualitative analysis

Pharmaceutical consumption

Pharmaceuticals form the group with the largest consumption within the pharmaceutical service, accounting for 97% of the prescriptions invoiced and more than 93% of the total amount spent in pharmacy.

Consumption of generic medicines

Generic medicines (GMs) have the same quality, safety and efficacy as brand name pharmaceuticals but at a substantially lower price and therefore they play a fundamental role in preserving the financial sustainability of the SNS.

Table 5.7 shows how generic medicine consumption has increased as a proportion of total pharmaceutical consumption. In 2008, generics had a market share 21.81% in terms of number of packs, more than two and a half times the 2003 consumption. With respect to the total amount spent in pharmacy, generic medicine consumption represented 9.20% in 2008.

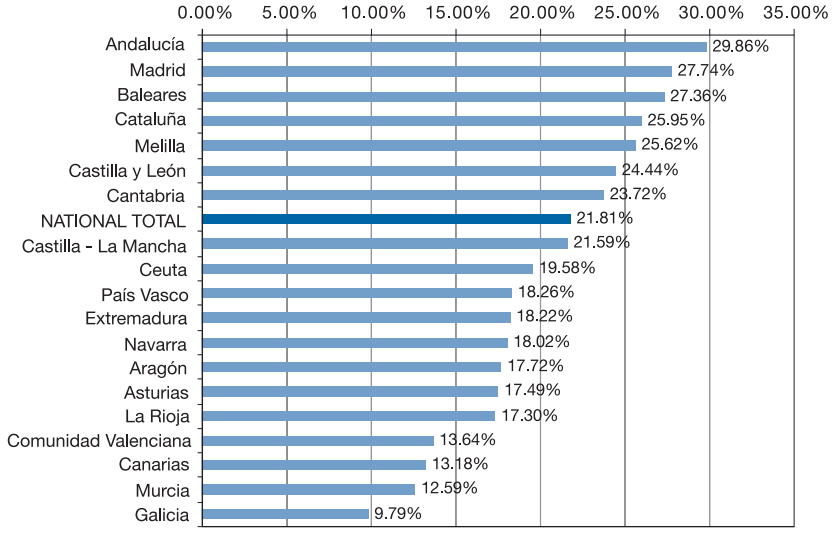
Table 5.7. Consumption of generic medicines based on SNS prescriptions. 2003-2008

Year	2003	2004	2005	2006	2007	2008
% GM packs/total pharmaceuticals	8.85	12.03	14.10	16.72	20.94	21.81
% GM amount/ total pharmaceuticals	6.03	6.58	7.35	8.54	9.23	9.20

Source: Alcántara Information System

Figure 5.2 shows the market share of consumption of packs of generic medicine in 2008, by autonomous community. Andalucía has the highest consumption (29.86%), followed by Madrid (27.74%) and Baleares (27.36%). The lowest consumption of generic packs is found in Galicia (9.79%) and Murcia (12.59%).

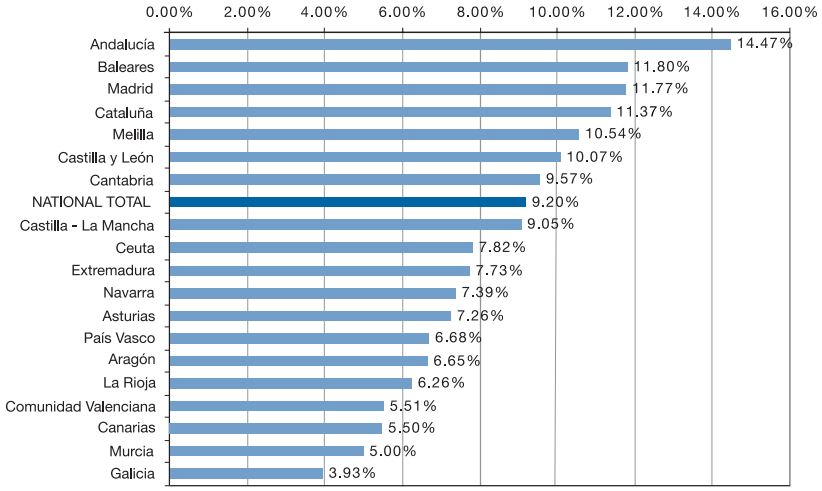
Figure 5.2. Percentage consumption of generic packs by autonomous community. 2008



Source: Alcántara Information System

As regards the consumption of generic medicines in terms of the amount spent on them, Figure 5.3 shows their percentages of consumption within total pharmaceutical consumption in 2008. Andalucía, at 14.47%, spent the most on generic medicines, followed by Baleares (11.80%) and Madrid (11.77%), while Galicia (3.93%) and Murcia (5%) spent the least.

Figure 5.3. Percentage consumption of generic medicines in total amount spent, by autonomous community. 2008



Source: Alcántara Information System

Consumption of pharmaceuticals by therapeutic subgroups

The five top pharmaceutical chemical/therapeutic subgroups with the highest consumption in packs based on SNS prescription invoicing for the national total in 2008 are presented in Table 5.8. The first subgroup is A02BC (Proton pump inhibitors), with the packs invoiced representing 6.81% of total pharmaceuticals, an increase of 13.88% with respect to the year before. These five top subgroups constitute 24.37% of the total invoiced pharmaceutical packs.

Table 5.8. Five top therapeutic subgroups with the highest consumption of packs. 2008

ATC 4	PACKS (million units)	% total	%Δ 08/07
A02BC (Proton pump inhibitors)	59.39	6.81	13.88
N05BA (Benzodiazepine derivatives)	45.86	5.26	4.26
C10AA (HMG CoA reductase inhibitors)	39. 19	4.49	12.31
N02BE (Anilides)	37.01	4.24	0.95
M01AE (Propionic acid derivatives)	31.14	3.57	5.74
TOTAL OF THE 5 SUBGROUPS	212.58	24.37	7.83

Source: Alcántara Information System

Table 5.9 presents the subgroups with the highest consumption in terms of total amount spent, for the national total in 2008. The C10AA subgroup (HMG CoA reductase inhibitors) has the highest consumption on a national level, with 6.89%, an increase of 8.80% with respect to the year before. These five top subgroups constitute 23.47% of the total amount spent on invoiced pharmaceuticals.

Table 5.9. Five top therapeutic subgroups with the highest consumption in total amount spent. 2008

ATC 4	TOTAL RP (million Euros)	% total	%Δ 08/07
C10AA (HMG CoA reductase inhibitors)	858.58	6.89	8.80
A02BC (Proton pump inhibitors)	647.11	5.19	2.55
R03AK (Adrenergics and other drugs for obstructive airway diseases)	517.43	4.15	8.78
C09CA (Angiotensin II antagonists, plain)	500.70	4.02	12.13
C09DA (Angiotensin II antagonists and diuretics)	401.90	3.22	16.28
TOTAL OF THE 5 SUBGROUPS	2925.72	23.47	8.84

Note: *TOTAL RP refers to the total amount spent calculated at retail price with VAT
Source: Alcántara Information System

The subgroups with the highest consumption by autonomous community, both in the number of packs and in the total amount spent are shown in Table 5.10. Most of the communities reflect the five top subgroups on a national level, although the order is different in some communities (Table 5.10).

Table 5.10. Five top therapeutic subgroups with the highest consumption in packs and in total amount spent, by autonomous community. 2008

	ATC4 SUBGROUPS HIGHEST CONSUMPTION IN PACKS (% TOTAL)					ATC4 SUBGROUPS HIGHEST CONSUMPTION IN TOTAL RP (% TOTAL)				
Andalucía	A02BC	N05BA	N02BE	M01AE	C10AA	C10AA	A02BC	R03AK	C09CA	C09DA
	7.79	5.47	4.28	4.19	3.90	6.03	5.56	4.49	3.74	3.14
Aragón	A02BC	N05BA	C10AA	N02BE	M01AE	C10AA	A02BC	C09CA	R03AK	C09DA
	6.91	4.19	4.02	3.95	3.53	5.93	5.86	4.26	3.64	3.28
Asturias	N05BA	A02BC	C10AA	B01AC	M01AE	C10AA	R03AK	A02BC	C09CA	B01AC
	7.69	6.92	4.11	3.79	3.45	5.90	5.18	4.99	3.82	3.72
Baleares	A02BC	N05BA	C10AA	N02BE	M01AE	C10AA	A02BC	R03AK	N06AB	C09CA
	6.53	5.84	4.45	4.12	3.38	6.39	5.04	4.49	4.06	3.88
Canarias	A02BC	N05BA	C10AA	N02BE	B01AC	C10AA	A02BC	C09CA	C09DA	R03AK
	6.23	6.13	4.33	4.16	3.30	7.22	5.78	4.69	3.82	3.62
Cantabria	A02BC	N05BA	C10AA	N02BE	M01AE	C10AA	R03AK	A02BC	C09CA	C09DA
	6.51	5.39	5.16	4.25	3.79	8.10	5.09	4.39	3.30	3.13
Castilla-La Mancha	A02BC	N05BA	C10AA	N02BE	M01AE	C10AA	A02BC	C09CA	R03AK	C09DA
	7.15	4.39	4.29	4.22	3.79	6.90	5.52	4.20	4.05	3.64
Castilla y León	A02BC	N05BA	C10AA	N02BE	B01AC	C10AA	A02BC	C09CA	R03AK	C09DA
	6.65	4.99	4.75	4.27	3.44	7.12	5.16	4.11	4.03	3.57
Cataluña	A02BC	N05BA	C10AA	N02BE	B01AC	C10AA	A02BC	R03AK	N06AB	C09CA
	6.62	5.17	4.76	4.71	3.56	6.37	4.48	3.77	3.62	3.54
Comunidad Valenciana	A02BC	N05BA	C10AA	N02BE	M01AE	C10AA	A02BC	C09CA	C09DA	R03AK
	6.31	4.98	4.40	4.09	3.31	7.61	5.25	4.43	3.55	3.51
Extremadura	A02BC	N05BA	C10AA	M01AE	N02BE	C10AA	A02BC	R03AK	C09CA	C09DA
	6.37	4.96	4.64	4.02	3.92	7.54	4.87	4.36	4.25	3.57
Galicia	N05BA	A02BC	C10AA	B01AC	M01AE	C10AA	A02BC	R03AK	C09CA	C09DA
	5.94	5.74	5.12	3.29	2.99	8.11	5.72	4.85	4.81	3.90
Madrid	A02BC	C10AA	N02BE	N05BA	M01AE	C10AA	A02BC	R03AK	C09CA	N03AX
	7.22	5.05	5.02	5.01	3.60	7.27	4.74	4.22	3.48	3.14
Murcia	A02BC	N05BA	M01AE	C10AA	N02BE	C10AA	A02BC	C09CA	R03AK	N05AX
	6.86	5.05	4.11	3.86	3.43	6.93	6.15	4.86	3.43	3.30

	ATC4 SUBGROUPS HIGHEST CONSUMPTION IN PACKS (% TOTAL)					ATC4 SUBGROUPS HIGHEST CONSUMPTION IN TOTAL RP (% TOTAL)				
Navarra	A02BC	N05BA	C10AA	N02BE	M01AE	C10AA	A02BC	R03AK	C09CA	N06AB
	6.95	4.78	4.58	4.47	3.28	7.09	5.50	4.28	3.63	3.18
País Vasco	A02BC	N05BA	C10AA	N02BE	B01AC	C10AA	R03AK	A02BC	C09CA	C09DA
	6.11	5.11	4.72	4.42	3.29	6.76	5.19	4.68	3.82	3.33
Rioja	A02BC	N02BE	C10AA	N05BA	M01AE	C10AA	A02BC	C09CA	R03AK	N06AB
	6.32	4.70	4.46	4.18	3.40	7.36	4.78	4.57	3.63	3.00
Ceuta	A02BC	N05BA	M01AE	N02BE	C10AA	A02BC	C10AA	R03AK	C09CA	C09DA
	7.47	4.85	4.37	4.02	3.22	6.20	5.36	4.88	3.15	2.75
Melilla	A02BC	N02BE	M01AE	N05BA	B01AC	R03AK	L04AA	C10AA	A02BC	N03AX
	6.67	5.15	4.59	3.71	2.91	4.98	4.91	4.78	4.37	3.43
NATIONAL TOTAL	**A02BC**	**N05BA**	**C10AA**	**N02BE**	**M01AE**	**C10AA**	**A02BC**	**R03AK**	**C09CA**	**C09DA**
	6.81	**5.26**	**4.49**	**4.24**	**3.57**	**6.89**	**5.19**	**4.15**	**4.02**	**3.22**

Notes:
A02BC Proton pump inhibitors
B01AC Platelet aggregation inhibitors excl. heparin
C09CA Angiotensin II antagonists, plain
C09DA Angiotensin II antagonists and diuretics
C10AA HMG CoA reductase inhibitors
L04AA Selective immunosuppressive agents
M01AE Propionic acid derivatives
N02BE Anilides
N03AX Other antiepileptics
N05AX Other antipsychotics
N05BA Benzodiazepine derivatives
N06AB Selective serotonin reuptake inhibitors
R03AK Adrenergics and other drugs for obstructive airway diseases

*TOTAL RP refers to the total amount spent calculated at retail price with VAT

Source: Alcántara Information System

Consumption of pharmaceuticals by active ingredient

Table 5.11 presents the data for the 10 active ingredients with the highest consumption in packs based on SNS prescription invoicing in 2008. Omeprazole is the active ingredient with the highest consumption in packs in 2008 (45.31 million units), representing 5.22% of the total of pharmaceuticals, with an increase of 14.11% with respect to the year before. All together, packs of these top 10 active ingredients constitute 24% of the total pharmaceutical packs.

Table 5.11. Ten top active ingredients with highest consumption in packs. 2008

	Position in rank		2008		
	2008	2007	PACKS (million units)	% total	% 08/07
Omeprazole	1	1	45.31	5.22	14.11
Paracetamol	2	2	33.37	3.85	1.38
Ibuprofen	3	3	23.76	2.74	3.20
Acetylsalicylic acid	4	4	22.25	2.56	8.87
Simvastatin	5	5	16.52	1.90	17.59
Metformin	6	8	14.45	1.67	18.94
Lorazepam	7	6	13.77	1.59	5.90
Atorvastatin	8	9	13.74	1.58	14.12
Metamizole sodium	9	7	13.60	1.57	7.49
Enalapril	10	10	12.61	1.45	5.75
TOTAL 10 ACTIVE INGREDIENTS			**209.38**	**24.14**	**7.85**

Source: Alcántara Information System

Regarding consumption in terms of total amount spent in 2008, Atorvastatin is the active ingredient with the highest total invoiced (€561.55 million), 4.52% of the total amount spent in pharmacy, with an increase of 17.14% with respect to the year before. The 10 top active ingredients with the highest consumption in terms of amount spent represent 19.22% of the total of pharmaceuticals invoiced through SNS prescriptions (Table 5.12).

Table 5.12. Ten top active ingredients with highest consumption in terms of total amount spent. 2008

	Position in rank		2008		
	2008	2007	TOTAL RP (million Euros)	% total	% 08/07
Atorvastatin	1	1	561.55	4.52	17.14
Salmeterol and other drugs for obstructive airway diseases	2	2	348.48	2.80	5.64
Clopidogrel	3	3	265.39	2.13	9.20
Omeprazole	4	4	229.47	1.85	-1.56
Risperidone	5	5	192.48	1.55	3.71
Tiotropium bromide	6	8	169.93	1.37	13.53
Formoterol and other drugs for obstructive airway diseases	7	9	168.03	1.35	19.37
Olanzapine	8	7	162.67	1.31	4.58
Valsartan and diuretics	9	12	146.20	1.18	12.05
Venlafaxine	10	10	146.01	1.17	6.88
TOTAL 10 ACTIVE INGREDIENTS			2,390.20	19.22	8.21

Note: *TOTAL RP refers to the total amount spent calculated at retail price with VAT
Source: Alcántara Information System

Consumption of health products

In the consumption of pharmaceutical benefits, health products represent 2% of the total number of prescriptions and almost 4% of the total amount spent.

Table 5.13 presents the health products with the highest consumption in packs with respect to the national total in 2008. Urinary incontinence pads is the group with the highest number of packs invoiced, 33.23% of the total health products, with an increase of 8.93% from the year before. The five top groups account for 77.62% of all health products invoiced.

Table 5.13. Consumption of health product packs. 2008

Group	Packs (Million units)	% total	% 08/07
Urinary incontinence pads	5.89	33.23	8.93
Dressings	3.43	19.36	6.37
Gauzes	2.25	12.71	0.52
Elastic bandages for injuries or malformations	1.41	7.95	3.02
Plasters	0.77	4.37	-2.63
TOTAL 5 GROUPS	13.77	77.62	5.53

Source: Alcántara Information System

With regard to the total amount invoiced, urinary incontinence pads rank first, with a market share of 57.62%, an increase of 7.73% with respect to the year before. The five top groups represent 86.51% of all health products (Table 5.14).

Table 5.14. Health product consumption in terms of total amount spent. 2008

Group	Total RP (million Euros)	% total	% 08/07
Urinary incontinence pads	277.03	57.62	7.73
Dressings	63.85	13.28	5.29
Colostomy bags	48.49	10.09	3.78
Ileostomy bags	13.85	2.88	17.07
Elastic bandages for injuries or malformations	12.70	2.64	1.66
TOTAL 5 GROUPS	415.92	86.51	6.96

Note: *TOTAL RP refers to the total amount spent calculated at retail price with VAT
Source: Alcántara Information System

5.3 Pharmaceuticals and health products financed by the National Health System

The pharmaceuticals and health products included within the pharmaceutical benefits must be explicitly included in SNS public financing system, since not all pharmaceuticals are financed.

The procedure for public financing is regulated by Article 89 of Law 29/2006 on Guarantees and Rational Use of Pharmaceuticals and Health Products. A pharmaceutical is included in public financing once it has been authorised by the Spanish Agency of Medicines and Health Products or the European Agency of Medicines. The Ministry of Health and Social Policy, through the Directorate General for Pharmaceuticals and Health Products, decides whether or not to include a pharmaceutical in the SNS pharmaceutical service, bearing in mind a series of established criteria (seriousness, length and consequences of the different pathologies for which they are prescribed, specific needs of certain groups, therapeutic and social utility of the medicine, rationalisation of the public expenditure for the pharmaceutical service, existence of other medicines or alternatives for the same afflictions and the pharmaceutical's degree of innovation).

As a complementary public financing measure, the prices of the pharmaceuticals and health products are subject to government intervention. According to Article 90 of Law 29/2006, the maximum industrial price for pharmaceuticals and health products to be included in the SNS pharmaceutical service is set by the Interministerial Committee on Pharmaceutical Prices, part of the Ministry of Health and Social Policy.

Pharmaceuticals

Situation as of 31 December 2008

The total number of pharmaceuticals included in SNS public financing on 31 December 2008 was 18,976. Of these, 15,841 correspond to pharmaceuticals in prescription packs and 3135 to pharmaceuticals in pharmacy packs, which have a larger number of units (Table 5.15).

Of the pharmaceuticals in prescription packs, 14,367 are included on the positive list of services (which can be provided by and invoiced to the SNS) and 1474 correspond to pharmaceuticals for hospital use (these are not invoiced using prescriptions and can only be dispensed through hospital pharmacy services).

By therapeutic group, group N (nervous system) has the highest number of pharmaceuticals financed (3953), followed by group J (anti-infectives for systemic use) (3548) and group C (cardiovascular system) (2888). On the

other hand, group P (anti-parasitic products, insecticides and repellents) has the lowest number of pharmaceuticals financed (49).

Table 5.15. Pharmaceuticals financed by the SNS as of 31/12/2008

ATC GROUP	PRESCRIPTION PACK		PHARMACY PACK	TOTAL
	PHARMACEUTICALS INCLUDED ON THE POSITIVE LIST	PHARMACEUTICALS FOR HOSPITAL USE		
A	1,554	96	246	1,896
B	1,167	438	562	2,167
C	2,305	52	531	2,888
D	579	6	24	609
G	439	12	11	462
H	222	46	46	314
J	2,355	339	854	3,548
L	433	184	48	665
M	738	63	121	922
N	3,250	132	571	3,953
P	40	7	2	49
R	664	6	48	718
S	224	5	1	230
V	397	88	70	555
SUBTOTAL	**14,367**	**1,474**	**3,135**	**18,976**
TOTAL	**15,841**			

Note:
A ALIMENTARY TRACT AND METABOLISM
B BLOOD AND BLOOD FORMING ORGANS
C CARDIOVASCULAR SYSTEM
D DERMATOLOGICAL
G GENITO-URINARY SYSTEM AND SEX HORMONES
H SYSTEMIC HORMONAL PREPARATIONS, EXCLUDING SEX HORMONES AND INSULINS
J ANTI-INFECTIVES FOR SYSTEMIC USE
L ANTI-NEOPLASTIC AND IMMUNOMODULATING AGENTS
M MUSCULO-SKELETAL SYSTEM
N NERVOUS SYSTEM
P ANTI-PARASITIC PRODUCTS, INSECTICIDES AND REPELLENTS
R RESPIRATORY SYSTEM
S SENSORY ORGANS
V VARIOUS

Source: Alcántara Information Syste

Of the total pharmaceuticals financed by the SNS, 7023 correspond to generic medicines, constituting 37.01% of the total. The proportion of generics is somewhat higher in pharmacy pack medicines than in prescription packs, 41.69% as opposed to 36.08% (Table 5.16).

Table 5.16. Pharmaceuticals (generic and non-generic) financed by the SNS as of 31/12/2008

	GENERIC PHARMACEUTICALS	NON-GENERIC PHARMACEUTICALS	TOTAL	% GENERIC/ TOTAL
PRESCRIPTION PACK	5,716	10,125	15,841	36.08
PHARMACY PACK	1,307	1,828	3,135	41.69
TOTAL	**7,023**	**11,953**	**18,976**	**37.01**

Source: Alcántara Information System

The Directorate General for Pharmaceuticals and Health Products, the centre responsible for processing the financing procedure and setting prices for pharmaceuticals and health products, creates a file with information on the financed pharmaceuticals and health products that form part of the pharmaceutical service and can be prescribed using SNS prescriptions. This file, which is revised monthly, is called the positive list of services and is distributed to the autonomous communities and the general council of the professional association of pharmacists for use in the monthly invoicing of SNS prescriptions presented by the professional association of pharmacists.

The number of pharmaceuticals financed by the SNS and included on the list as of 31 December 2008 is 14,367 (Table 5.17). Depending on the type of co-payment that users must make for these pharmaceuticals, there are regular co-payments and reduced co-payments (as explained in the section on Pharmaceutical Services). Thus, of these pharmaceuticals, 8941 fall into the category of regular co-payment and 5246 into the category of reduced co-payment. All the pharmaceuticals in group L (anti-neoplastic and immunomodulating agents) are included among reduced co-payment pharmaceuticals. Group N pharmaceuticals (nervous system) include the highest number of pharmaceuticals financed with reduced co-payments. Likewise, the average retail price with VAT of the pharmaceuticals in each therapeutic group is indicated, as is the overall total. The average price for the pharmaceuticals included on the positive list of services is €26.97. Groups L (anti-neoplastic and immunomodulating agents) and H (systemic hormonal preparations, excluding sex hormones and insulins) pharmaceuticals have

the highest average prices (€260.24 and €109.38 respectively) while pharmaceuticals in groups S (sensory organs) and M (musculo-skeletal system) have the lowest (€4.57 and €8.83).

Table 5.17. Pharmaceuticals included on the positive list as of 31/12/2008

ATC GROUP	PHARMACEUTICALS WITH REGULAR CO-PAYMENT	PHARMACEUTICALS WITH REDUCED CO-PAYMENT	TOTAL PHARMACEUTICALS	AVERAGE PRICE (€)
A	1,134	420	1,554	14.76
B	1,009	158	1,167	16.69
C	815	1,490	2,305	12.17
D	551	28	579	11.25
G	254	185	439	37.66
H	111	111	222	109.38
J	2,321	34	2,355	11.66
L		433	433	260.24
M	715	23	738	8.83
N	956	2,294	3,250	27.13
P	33	7	40	18.40
R	476	188	664	12.93
S	224		224	4.57
V	342	55	397	61.47
TOTAL	**8,941**	**5,426**	**14,367**	**26.97**

Note: The ATC Groups are the same as those referenced in Table 5.15
Source: Alcántara Information Systems

Pharmaceuticals included in SNS financing in 2008

In 2008, a total of 1371 pharmaceutical presentations were included in SNS public financing, of which 184 correspond to pharmacy packs and 1187 to prescription packs. Of these, 153 were approved for hospital use and 1034 were included on the positive list of services. The therapeutic groups with the highest number of presentations included are group N (nervous system) with 499, group C (cardiovascular system) with 239 and group A (alimentary tract and metabolism) with 153 presentations (Table 5.18).

Table 5.18. Pharmaceuticals included in SNS public financing in 2008

ATC GROUP	PRESCRIPTION PACK		PHARMACY PACK	TOTAL
	PHARMACEUTICALS INCLUDED ON THE POSITIVE LIST OF SERVICES	HOSPITAL USE PHARMACEUTICALS		
A	113	16	24	153
B	14	36	5	55
C	189	1	49	239
D	15			15
G	34	3	3	40
H	17	9	4	30
J	42	23	29	94
L	50	41	4	95
M	69	3	9	81
N	448	7	44	499
P	1			1
R	21		1	22
S	4	1		5
V	17	13	12	42
SUBTOTAL	1,034	153	27,743	1,371
TOTAL	1,187			

Note: The ATC Groups are the same as those referenced in Table 5.15
Source: Alcántara Information Systems

Generic pharmaceuticals included in financing are playing an increasingly important role in the pharmaceutical market each year. While generic medicines constitute 37.01% of total financed pharmaceuticals (Table 5.16), when it comes to the pharmaceuticals included on the positive list in 2008, this proportion increases to 70.90% (972 of the newly included pharmaceuticals are classified as generic) (Table 5.19).

Table 5.19. Pharmaceuticals (generic and non-generic) included in SNS public financing in 2008

	Generic pharmaceuticals	Non-generic pharmaceuticals	TOTAL	% GENERIC/ TOTAL
Prescription pack	835	352	1,187	70.35
Pharmacy pack	137	47	184	74.46
TOTAL	**972**	**399**	**1,371**	**70.90**

Source: Alcántara Information Systems

The number of pharmaceutical presentations included on the positive list of services in 2008 is 1034, of which 599 are pharmaceuticals with reduced co-payments. The average retail price with VAT of the group of pharmaceuticals included in 2008 is €44.66, with great variability in prices depending on the therapeutic group. Thus, pharmaceuticals included in group L (anti-neoplastic and immunomodulating agents) have an average price of €240.37 and all have a reduced co-payment, while group S (sensory organs) has the lowest average price at €8.39 (Table 5.20).

Table 5.20. Pharmaceuticals included on the positive list of services in 2008

ATC GROUP	PHARMACEUTICALS WITH REGULAR CO-PAYMENT	PHARMACEUTICALS WITH REDUCED CO-PAYMENT	TOTAL PHARMA-CEUTICALS	AVERAGE PRICE (€)
A	84	29	113	23.37
B	5	9	14	102.63
C	105	84	189	16.92
D	15		15	18.12
G	26	8	34	26.76
H	9	8	17	26.74
J	41	1	42	25.11
L		50	50	240.37
M	69		69	9.49
N	55	393	448	47.30
P		1	1	44.10
R	15	6	21	14.65
S	4		4	8.39
V	7	10	17	115.56
TOTAL	**435**	**599**	**1.034**	**44.66**

Note: The ATC Groups are the same as those referenced in Table 5.15
Source: Alcántara Information System

Active ingredients included for the first time in SNS financing in 2008

In 2008, a total of 23 new active ingredients with 56 pharmaceutical presentations were included for the first time in the SNS service. Some of these had already been authorised for marketing in 2007, but the authorised inclusion of some of their forms for SNS financing was not formalised until 2008. According to the dispensing conditions, 36 of the 56 pharmaceutical presentations are subject to restricted medical prescription (31 qualify for hospital use-they can only be used in a hospital or authorised care centre- and 5 for hospital diagnosis - for prescription by specific medical specialists). The therapeutic groups with the highest number of new active ingredients are groups L (anti-neoplastic and immunomodulating agents) and J (anti-infectives for systemic use), both with 5 active ingredients (Table 5.21).

Table 5.21. Active ingredients included for the first time in SNS financing in 2008

ATC GROUP	ACTIVE INGREDIENT	NUMBER OF PRESENTATIONS	ACTIVITY/ EFFECT	DISPENSING CONDITIONS
A	Exenatide	2	Hypoglycaemic agent	Medical prescription
	Vildagliptin	2	DPP-4 inhibitor (Antidiabetic agent)	Medical prescription
B	Dabigatran	6	Antithrombotic agent	Medical prescription
	Epoetin zeta	9	Antianemia agent	Hospital use
C	Aliskiren	4	Antihypertensive agent	Medical prescription
D	Retapamulin	1	Topical antibiotic	Medical prescription
G	Fesoterodine	2	Antispasmodic	Medical prescription
H	Mecasermin	1	Somatropin agonist	Hospital use
J	Anidulafungin	1	Antimicótico	Hospital use
	Maraviroc	2	HIV-1 antiviral agent	Hospital use
	Micafungin	2	Antimycotic agent	Hospital use
	Raltegravir	1	Antiretroviral agent	Hospital use
	Telbivudine	1	Antiretroviral agent (Reverse transcriptase inhibitor)	Hospital use

ATC GROUP	ACTIVE INGREDIENT	NUMBER OF PRESENTATIONS	ACTIVITY/ EFFECT	DISPENSING CONDITIONS
L	Eculizumab	1	Immunosuppressive agent	Hospital use
	Lapatinib	1	Directed protein kinase inhibitor	Hospital diagnosis
	Nilotinib	1	Directed protein kinase inhibitor	Hospital diagnosis
	Panitumumab	3	Monoclonal antibody	Hospital use
	Temsirolimus	1	Immunosuppressive agent	Hospital use
N	Dimercaptosuccinic acid	1	Radiopharmaceutical	Hospital use
	Paliperidone	3	Antipsychotic	Medical prescription
	Rufinamide	3	Antiepileptic agent	Hospital diagnosis
V	Gadoversetamide	7	Contrast agent	Hospital use
	Iodine-123 sodium hippurate	1	Radiopharmaceutical (renal diagnosis)	Hospital use
Total	**23**	**56**		

Note: The ATC Groups are the same as those referenced in Table 5.15
Source: Alcántara Information Systems

Health products

Situation as of 31 December 2008

A total of 5205 health products were financed by the SNS as of 31 December 2008. According to the groups established by Royal Decree 9/1996, which regulates the selection of patient care materials, their financing and the guidelines for supplying and dispensing them, the highest number of products is found in the group of elastic bandages for the protection or reduction of injuries and internal malformations, with a total of 1589, followed by colostomy bags (491) and urinary incontinence pads (465). By type of co-payment, 3228 fall into the category of products with regular co-payment and 1977 have reduced co-payment. The average retail price with VAT of all the health products included in the financing is €27.02. The highest average prices correspond to urostomy, ileostomy and colostomy bags (€80.35, €80.06 and €61.10 respectively), and the lowest prices are those paid for bandages (€1.45) and cotton wool items (€2.37) (Table 5.22).

Table 5.22. Health products financed by the SNS as of 31/12/2008

GROUPS	CO-PAYMENTS		TOTAL	AVERAGE PRICE (€)
	REGULAR	REDUCED		
Cotton wool items	183		183	2.37
Dressings	283		283	15.70
Gauze	114		114	2.64
Bandages	308		308	1.45
Plasters	125		125	2.49
Cannulas		124	124	50.00
Probes		375	375	32.68
Vaginal douches, irrigators and accessories	7		7	3.16
Eye patches	19		19	3.96
Elastic bandages for injuries or malformations	1,589		1,589	7.62
Trusses and suspensory bandages	129		129	10.84
Inhalation devices		8	8	6.20
Urine collection bags		103	103	10.60
Penis clamps and accessories		121	121	46.30
Urinary incontinence pads	465		465	38.29
Other systems for incontinence	6		6	18.41
Colostomy bags		491	491	61.10
Ileostomy bags		409	409	80.06
Urostomy bags		134	134	80.35
Ostomy accessories		17	17	5.16
Ostomy dressings		173	173	20.84
Ostomy irrigation systems and accessories		14	14	32.98
Continent colostomy systems		8	8	37.65
Total	**3,228**	**1,977**	**5,205**	**27.02**

Source: Alcántara Information Systems

Health products included in SNS public financing in 2008

In 2008, 6 new health products were included in SNS financing: 3 urine collection bags and 3 multi-layer compression system bandages.

5.4 Policies and measures for the rational use of pharmaceuticals

In 2008, the main policies for the rational use of pharmaceuticals cited in the SNS reports from earlier years were continued, and advances were made with some proposals that require an important effort in resources and time, such as those related to improving information systems (especially the cases of computer assisted prescribing and e-prescription) and measures focusing on health care co-ordination.

The main initiatives put in place in the different autonomous communities are discussed below. The information was supplied by the regional health care services and, therefore, reflects what each relevant authority deems most important. The fact that an autonomous community is not mentioned in reference to a specific pharmaceutical policy measure should be interpreted with some caution, since it does not mean that the measure does not exist there. The measure may have been in place for some time and not thought of as a novel aspect, but rather as something already well established in the region's culture of pharmaceutical management. In another autonomous community, on the other hand, the measure may have only recently been implemented and its importance is therefore highlighted.

The main groups of measures implemented by the autonomous communities concerning pharmacy are summarised in the SNS reports for 2004-2007. These groups can be divided into the following subgroups:

- ***Policies for prescribing by active ingredient and the promotion of generic drugs***
- ***Improvements in information systems***
  - Computer assisted prescribing
  - E-prescription
  - Creation or dissemination of pharmacological and pharmaco-therapeutic guides
  - Training and information programmes aimed at prescribers
  - Informative programmes aimed at users/citizens
- ***Improvements in health care co-ordination***
  - Co-ordination programmes between primary and specialised care in general
  - Care programmes for the chronically ill and multi-morbidity/polymedicated patients
  - Pharmaceutical care programmes for social health care centres
- ***Individual incentive programmes aimed at prescribers***
- ***Improvements in purchasing management***

This classification is proposed for reasons of practicality; clearly no classification will ever be free of problems, given the complementary nature of the different actions listed. For example, without a good information system, the appropriate incentive programme for prescribers cannot be implemented. Likewise, one of the quality indicators that enables prescribers to receive an incentive reward may be to fulfil the criteria of a pharmacological guide or to prescribe a certain quota of generic medicines. In other words, strategies for the rational use of pharmaceuticals combine the tools cited in this classification in order to obtain quality care at an affordable cost for the system. The classification is presented only to facilitate a more orderly description of the alternatives put in place by the governments of each autonomous community.

In compliance with Article 85 of Law 29/2006, which instructs health authorities to encourage the prescription of medicines by active ingredient, a significant majority of autonomous communities express a clear interest in ***promoting prescriptions by active ingredient and prescribing generic medicines*** as a priority in the rational use of pharmaceuticals. In this respect, the consumption of generic medicines as a percentage of the total packs prescribed has grown notably in recent years, reaching a national average of 21.81%, as shown in Figure 5.2

When the analysis is extended to prescriptions made by active ingredient, the results become more confusing. There is the case of Andalucía, for example, where 77.12% of the total prescriptions invoiced are prescribed by active ingredient and such prescriptions account for 76.37% of the total amount spent, but there are many other autonomous communities in which these percentages are around 5%, even in some of the communities that share Andalucía's top position in the consumption of generic medicines as a percentage of the total.

The methods used to promote generic medicines differ among the different autonomous communities. Some have opted to include indicators related to prescribing by active ingredient or to reaching a certain quota of prescribed GM packs as a quality criterion in their contract programmes. Others, as an alternative or even complementary method, include these indicators in individual incentive programmes for prescribers. Likewise, the creation or adoption of pharmacotherapeutic guides and their dissemination among prescribers, along with training and information programmes on generic medicines and prescribing by active ingredient, and the work of primary care and hospital pharmacists all influence a prescriber's willingness to fulfil these objectives.

Also important are the agreements signed by health authorities in several autonomous communities and the professional associations of pharmacists regarding the maximum prices for public financing for

prescriptions by active ingredient in a medical prescription, which encourage prescribing by active ingredient and the prescription of generic drugs.

Secondly, the efforts being made to ***improve information systems*** are also fundamental in optimising the management of resources. All of the autonomous communities that provided information cited the improvement of information systems as an essential aspect of their pharmaceutical policies.

Computer-assisted prescribing was cited as important by several autonomous communities (Aragón, Baleares, Cantabria, Castilla-La Mancha, Cataluña, Extremadura, Galicia, Madrid, País Vasco, Rioja and the autonomous cities of Ceuta and Melilla). These systems can help to meet the objectives of other measures, such as promoting prescribing by active ingredient and generic medicines. They can also alert prescribers to possible interactions between prescribed medicines. In a similar vein, a considerable number of autonomous communities cited the efforts made towards the establishment of e-prescription (Andalucía, Aragón, Baleares, Castilla-La Mancha, Cataluña, Galicia, Murcia, País Vasco and Rioja), although in some cases, this is still in the pilot phase or even in the prior design stage.

Most autonomous communities, whether they use a computer-assisted prescribing system or the traditional format, cite the importance of the incorporation of ***pharmacological and pharmacotherapeutic guides*** as a support for prescribing. Ten of them, plus Ceuta and Melilla, report this as one of the key activities among their measures for the rational use of pharmaceuticals. The actions listed coincide with those from earlier years: both concrete training actions with a specific audience (for example, pharmacotherapeutic sessions with primary care teams) and broader ongoing training programmes. As a complement to these actions, it has become common to inform physicians about their prescribing profiles, comparing their figures with those of other physicians in their area and centre. In some cases, this action is merely informative and can serve as a self-evaluation tool for professionals, while in other cases, measures to monitor prescribing behaviour are adopted for those doctors with significant deviations with respect to the average in each area, using personal interviews with them to discover the reasons for their excessive prescriptions. Similarly, personalised incentives linked to prescribing behaviour may exist, with this type of information used to motivate physicians to adjust their prescribing profile.

In addition to the support and information provided to prescribers, ***informative actions aimed at users/citizens*** are also cited. In some autonomous communities, rational use campaigns for antibiotics and informative campaigns on generic medicines promoted by the Ministry of Health and Social Policy have been complemented by community-level campaigns, where primary care doctors and dispensing pharmacies are chosen to familiarise citizens with these campaigns. In Baleares, for example,

a programme of educational activities regarding the rational use of pharmaceuticals in chronic patients was put in place (as part of the programme, 'Salut per a tothom'-'Health for Everyone') combined with the use of new technologies to remind certain patients to take their medicine. However, although a growing interest in these types of measures can be detected, actions relating to user information and elements that lead to a more responsible demand for pharmaceuticals are not as frequently cited by autonomous communities as key measures in the rational use of pharmaceuticals, as compared to the actions discussed above.

Among the measures described for 2008, one group that received special attention is that related to the implementation of specific ***health care co-ordination*** actions.

Aragón, Baleares, Castilla-La Mancha, Cataluña, País Vasco, Rioja, Ceuta and Melilla cited general co-ordination actions or programmes between primary and specialised care. Two examples are the development of a single electronic health record to be shared by the primary and specialised care levels and the inclusion in it of a prescription report with recommendations from a common therapeutic guide. Along the same lines, the joint development of common action protocols for primary and specialised care is a measure reported by several autonomous communities. Also, the allocation for capitation in the pharmaceutical benefits budget, with adjustments according to the population treated and the consideration of a single management system, encourage the establishment of corporate quality standards and indicators common to primary and specialised care, as well as the creation of commissions for the rational use of pharmaceuticals and pharmacy comprised of experts and professionals from both care levels.

The growing interest in promoting quality pharmaceutical service to social health care centres through primary care pharmacy services or hospital pharmacy dispensing services is notable. In this respect, Baleares, Castilla y León, Castilla-La Mancha, Extremadura, Galicia, Murcia, Navarra, País Vasco and Rioja all expressed their interest in encouraging this type of action, while Cataluña cited the upcoming enactment of a decree regulating this type of service. As the system for the personal autonomy and care of dependent people develops, this type of co-ordination measure will make important advances, and the co-ordination of the pharmaceutical service aimed at people with limited autonomy who live at home and receive formal and/or informal care can also be expected.

Several autonomous communities have developed specific actions geared towards improving the quality of pharmaceutical care to specific types of patients, usually polymedicated and chronic patients (actions to optimise programmes for the chronically ill). The clinical management of these people

is complex, and any actions taken would serve users of both specialised and primary care services. The interrelationship between care levels, then, takes on special importance if these people are to receive appropriate pharmacotherapeutic treatment. Hence several autonomous communities have developed special actions in this field.

Another important measure implemented in recent years is the establishment ***of individual incentive systems*** linking health care professionals with the efficient use of pharmaceuticals, which were cited by several autonomous communities as still underway in 2008. Physicians can regularly evaluate themselves by accessing their prescribing profile through the corresponding health service intranet and the electronic prescription report. These reports periodically show the prescriber's evolution according to different indicators and also compare them with their health care facility and area; some autonomous communities even specify avoidable expenditures by active ingredient, based on the physician's actions. Other autonomous communities, such as País Vasco, do not use individual direct incentives, opting instead for clinical management contracts aimed at the primary care team. In general, the autonomous communities that have developed individual incentive programmes for prescribers express satisfaction with the results. Galicia was the only exception, saying that the results obtained from their economic incentive plan for efficient prescribing were not as good as they had expected.

Finally, another action which has become significantly more common in recent years is the advance made in ***rational purchasing management*** (centralised purchasing policies and pharmaceutical purchasing competitions), especially in the sphere of hospital pharmacy. Thus, while only five autonomous communities cited this type of action in 2004, nine autonomous communities expressly mentioned it in 2008 as a very important part of their policies for controlling pharmaceutical expenditure, and Cataluña noted the importance of its purchasing management measures, including its incentive programme in provider contracts.

5.5 Monitoring the safety of pharmaceuticals and health products

The mission of the Spanish Agency of Medicines and Health Products (hereinafter AEMPS, for its acronym in Spanish) is to "guarantee the society, from the perspective of public service, that the medicines and health products available are high quality, safe and effective, and the information concerning them is correct, conceiving of such medicines and health products in the broadest sense, from research about them to their use, in the interest of protecting and promoting the health of people and animals."

Pharmaceuticals for human use

As for AEMPS activity in the area of pharmacoepidemiology and pharmacovigilance in pharmaceuticals for human use, in 2008 the provisions of Royal Decree 1344/2007 (which transposed EU Directive 2004/27/EC) on pharmacovigilance began to be applied. More specifically, the FEDRA (Spanish pharmacovigilance database on adverse reactions) was completely adapted to allow for the electronic transmission of notifications of suspected adverse reactions, and electronic dispatches began to be made to EudraVigilance (European database of suspected adverse reactions); notifications from outside the European Economic Area began to be sent directly to EudraVigilance by authorised marketing agents; support was given for new sources of information to complement spontaneous notification and to new pharmacoepidemiological studies sponsored both by authorised marketing agents and by research groups; a committee to coordinate post-authorisation studies was established, making it possible to clarify and homogenise procedures from different health administrations; proactive pharmacovigilance was begun, through the use of risk management plans; and finally, greater emphasis was placed on risk prevention and communication.

Table 5.23. Notifications received on adverse reactions to pharmaceuticals for human use

Source		2006	2007	2008
Spanish pharmacovigilance system		10,034	8,875	10,030
Pharmaceutical industry	National	2,595	1,831	2,314
	Foreign	98,368	112,560	*

Note: *Reported directly to EudraVigilance
Source: AEMPS 2008 Annual Report

Table 5.24. Notification of suspected adverse reactions to pharmaceuticals reported to international organisations and the pharmaceutical industry

Reported to international organisations	2007	2008
EMEA on an expedited basis (serious; maximum 15 days)	2,372	5,366
WHO (International pharmacovigilance programme)	3,946	7,000
Reported to the pharmaceutical industry	**2007**	**2008**
On an expedited basis (maximum 15 days)	1,711	3,060

Source: AEMPS 2008 Annual Report

Table 5.25. Periodic reports on pharmaceutical safety			
	2006	2007	2008
Registered	1,800	2,250	3,800
Exemption procedures (generic medicines)	292	380	397
Source: AEMPS 2008 Annual Report			

Table 5.26. Post-authorisation pharmaceutical studies			
	2006	2007	2008
Protocols received	90	104	109
Monitoring reports	25	24	54
Final reports	30	28	41
Source: AEMPS 2008 Annual Report			

Table 5.27. Pharmaceutical safety modifications		
Modifications requested	2007	2008
National	829	388
Mutual recognition	543	718
Total	1,372	1,106
Modifications evaluated and processed	2007	2008
National	928	603
Mutual recognition	884	534
Urgent safety restrictions	2	--
Total	1,712	1,137
Source: AEMPS 2008 Annual Report		

Table 5.28. Management of pharmaceutical risk

	2007	2008
Information notes	18	19
European alerts processed	58	60
Review and management of DHPC*	36	32
Review and evaluation of educational materials related to risk management plans	7	13
Reports on complaints	191	33

Note: *DHPC: Direct Healthcare Professional Communications
Source: AEMPS 2008 Annual Report

Table 5.29. Pharmacovigilance of authorised pharmaceuticals by centralised procedure or by mutual recognition/decentralised procedure performed by Spain for the entire European Union

	Evaluation reports		
	2006	2007	2008
Variations	17	44	33
PSURs*	28	37	30
Revalidations	5	20	9
Risk management plans	4	6	19
Monitoring measures stipulated in authorisation	14	23	25
Evaluation of pharmacovigilance of authorisation holders	-	-	11
TOTAL	68	130	127

Note: *PSUR: Periodic Safety Update Report
Source: AEMPS 2008 Annual Report

The BIFAP project and other pharmacoepidemiological projects

The new legislation has paved the way for the BIFAP project (database for pharmacoepidemiological research in primary care), a strategic project operated by the AEMPS in collaboration with 10 autonomous communities in order to provide a database with anonymous clinical information coming from patients treated in primary care facilities (family medicine and paediatrics). This large database allows the AEMPS, pharmacovigilance centres and SNS researchers to do pharmacoepidemiological studies more efficiently than with traditional methods (field studies).

In addition to the economic support that the BIFAP receives from the AEMPS, funds were received from Spain's Health Research Fund, following a competitive selection process, to carry validation studies on upper digestive haemorrhage and atherothrombotic disease.

Table 5.30. Activity of the BIFAP project (database for pharmacoepidemiological research in primary care)

BIFAP activities	2007	2008
Collaborating doctors	1,001	1,236
Patients with information	2,208,652	2,390,376
Health problem records	16,029,405	33,046,590
Medication records	59,540,878	126,091,704

Source: AEMPS 2008 Annual Report

The AEMPS also participates in the European projects ESAC (European Surveillance of Antimicrobial Consumption) and TEDDY (Task Force in Europe for Drug Development for the Young), and contributes to the following national projects: registry of hepatopathies associated with pharmaceuticals (University of Malaga); registry of blood dyscrasias associated with pharmaceuticals (Catalan Pharmacology Institute-Autonomous University of Barcelona); Spanish Registry of Adverse Events of Biological Therapies in Rheumatic Diseases or BIOBADASER (Spanish Rheumatology Society), all aimed at gaining better knowledge of pharmaceutical safety.

Health products

Notifications on incidents that occur within the framework of the health product monitoring system have increased, particularly notably in 2008, when more than 400 additional notifications were received compared to the year before. Non-implantable products and active implants saw the highest increase, and actions related to these notifications almost doubled with respect to the year before, ranging from actions with the companies to requests for reports from health professionals.

Beginning in 2005, a breakdown of incidents with products for in vitro diagnosis was done, given their importance in the group of notifications. Previously, these data were added to those for non-implantable products.

Additionally, the AEMPS electronic alert system for health authorities in the autonomous communities, which facilitates the exchange of information and makes it possible to maintain access to all the documents

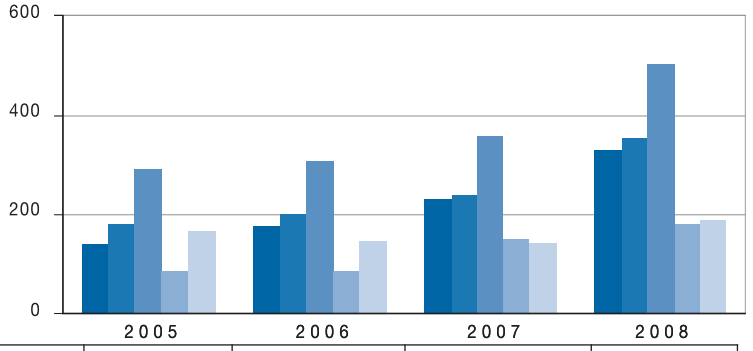
transmitted, functioned in a completely satisfactory fashion during 2008, with an increase in the number of alerts transmitted by this system.

Table 5.31. Health product monitoring system

	2005	2006	2007	2008
Adverse incidents notified	852	907	1,109	1,546
Actions	2,172	2,135	2,530	4,992
Administrative resolutions	-	-	-	-
Safety notes	2	6	12	2
Alerts transmitted to monitoring points in the autonomous communities				335

Source: AEMPS 2008 Annual Report

Figure 5.4. Notifications of adverse events to the health product monitoring system



	2005	2006	2007	2008
ACTIVE IMPLANTS	138	176	231	328
NON-ACTIVE IMPLANTS	179	200	236	352
NON-IMPLANTABLE PRODUCTS	291	305	353	498
ELECTRO-MEDICAL/ MECHANICAL PRODUCTS	83	82	148	181
IN VITRO DIAGNOSTIC PRODUCTS	161	144	141	187

Source: AEMPS 2008 Annual Report

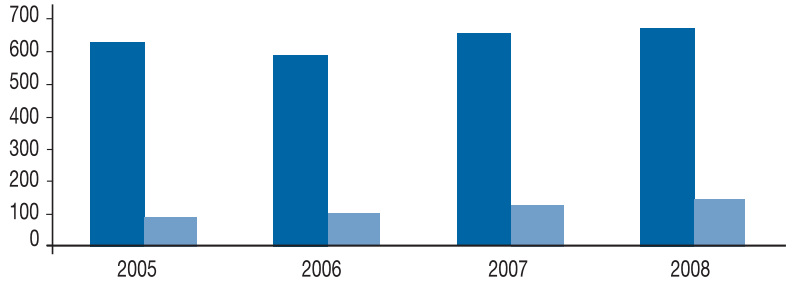
5.6 Clinical trials with pharmaceuticals

Authorisation of clinical trials

The AEMPS, in collaboration with the Coordinating Centre of the Ethics Committees for Clinical Research (CC-CEIC), which is an administrative unit of the Directorate General for Pharmaceuticals and Health Products, developed a computer application that makes it possible to send electronic requests to authorise clinical trials and to subsequently process them. The application is useful both for the initial request for authorisation of a clinical trial and for requests to modify a trial. During 2008, the tool for sending request forms to the AEMPS began operating, and a total of 278 requests were received.

During 2008, 675 clinical trials were authorised, of which 42.8% corresponded to Phases I and II. In 24.8% of the Phase I clinical trials, the objective was to demonstrate bioequivalence.

Figure 5.5. Evolution in the number of clinical trials (CT) and investigational medicinal products (IMP) authorised by the AEMPS



	2005	2006	2007	2008
No. of CT	636	588	655	675
No. of IMP	97	99	124	149

Source: AEMPS 2008 Annual Report

Table 5.32. Percentage distribution of clinical trials by phase	
Trial phases	%
Phase I. Pharmacokinetics and safety	15.5
Phase II. Exploratory	27.3
Phase III. Confirmatory	40.0
Phase IV. Post-authorisation studies and other	17.2
Source: AEMPS 2008 Annual Report	

Most of the clinical trials were sponsored by a pharmaceutical company, while 22.5% were sponsored by a scientific society or researcher.

Table 5.33. Percentage distribution of clinical trials by type of sponsor	
Type of sponsor	%
Pharmaceutical laboratory	77.5
Researcher / Scientific group	22.5
Source: AEMPS 2008 Annual Report	

Table 5.34. Percentage distribution of clinical trials by type of centre	
Centre	%
International multicentre	66.0
National multicentre	14.5
Single-centre	19.5
Source: AEMPS 2008 Annual Report	

With respect to the number and location of the participating centres, a large majority of the trials are multicentre trials with the participation, in most cases, of centres from more than one autonomous community.

In the case of single-centre trials, 59% were sponsored by a researcher or scientific society.

Regarding the age and sex of the selected population, in 95.7% of the clinical trials, the target population included adults, in 74% of the cases, people 65 and older and only 9.6% targeted children. In 90.6% of these trials, the participants included both men and women.

Table 5.35. Number of clinical trials with advanced therapies authorised by the AEMPS

	2005	2006	2007	2008
Authorised	4	7	10	17

Source: AEMPS 2008 Annual Report

The AEMPS has evaluated more than 70 requests for clinical trials with advanced therapies and the corresponding Investigational Medicinal Products (IMP), with a trend towards growth being observed in this field in recent years.

Activities related to the Ethics Committees for Clinical Research (CEIC)

The Coordinating Centre of the Ethics Committees for Clinical Research (CC-CEIC) was created by Royal Decree 223/2004, of 6 February 2004, regulating the procedures for clinical trials in Spain. Likewise, Royal Decree 590/2005, of 20 May 2005, in the first of its final provisions, amends the above regulation, establishing that the CC-CEIC is attached to the Ministry of Health and Consumer Affairs through the Directorate General for Pharmaceuticals and Health Products.

Royal Decree 223/2004, of 6 February 2004, transposed European Directive 2001/20/EC of the European Parliament and the Council into Spanish law. This Directive adopted in 2001 harmonises the legislation of the European Union member states on clinical trials with pharmaceuticals in human beings, expressly excluding observational studies. The abovementioned Royal Decree is the third piece of regulatory legislation that regulates clinical trials in Spain, following the Royal Decrees issued in 1978 and 1993.

Article 9 of Royal Decree 223/2004 lists the activities to be undertaken by the CC-CEIC:

- To facilitate single opinion in multicentre clinical trials
- To coordinate with the autonomous communities the development of a computer system for communication between the CEICs
- To manage the database of the national network of clinical trials
- To promote common criteria for evaluating ethics committees
- To promote training of ethics committee members
- To promote forums for debate among ethics committees
- To act as a contact point
- To advise ethics committees
- To create an annual report

The CC-CEIC acts as a unit within the Directorate General for Pharmaceuticals and Health Products. It has no employment positions of its own nor does it have a budget. All of its activities are authorised by the Directorate General for Pharmaceuticals and Health Products.

Summary of activities in 2008

During 2008, the CC-CEIC worked in its usual areas, i.e., resolving enquiries and maintaining the computer system used by the ethics committees for their own activities, as well as coordinating, with the autonomous communities, the development of new tools to achieve the same ends.

Additionally, Law 14/2007, of 3 July 2007, on biomedical research was analysed with regard to ethics committees, since this legal text establishes that the committees be superseded by clinical research committees (CEI), multi-party administrative bodies in charge of ensuring that the ethical postulates of biomedical research are respected. The restructuring of ministerial departments, called for by Royal Decree 438/2008, of 14 April 2008, modifies the distribution and powers of the Ministries of Health and Consumer Affairs (now the Ministry of Health and Social Policy) and Science and Innovation. This section on regulatory analysis pays special attention to the European Union's legislative initiatives and in particular to the Commission's working group on clinical trial directives.

Furthermore, 2008 was the year in which the final touches were put to the SIC-CEIC v.2 application for the electronic processing of clinical trial files. The CC-CEIC has been working on this project since 2006 and, despite the fact that the application was ready to enter the pilot phase prior to actual implementation, the decision was made to wait for the AEMPS to move forward with its management module. Finally, in 2008, plans were made to train the CEIC staff on the new application and the necessary service contract regarding training courses for committee members was signed. The courses were given in February of 2009. Thanks to this activity, the Spanish ethics committees have, starting in 2009, a computer tool that represents a great advance, since it allows sponsors to present their requests for clinical trials electronically and at the same time enables the CEIC and AEMPS to evaluate those files using the corresponding modules.

Table 5.36. Activity of the coordinating centre of the ethics committees for clinical research (CC-CEIC), 2008

Number of clinical trials requested	583
Number of modifications	1,926
Number of clarifications	531
Number of enquiries resolved	81

Source: CC-CEIC

6 Quality

The Quality Plan for the National Health System (hereinafter the SNS) has been in effect for three years, which means professionals now have a consolidated platform available to them for the promotion of quality health care from different perspectives. To disseminate the Plan, electronic information tools and on-line consultation mechanisms have been developed, such as newsletters, websites with specific content and blogs.

Especially important among the actions undertaken in 2008 as part of the Quality Plan are the extension of initiatives to improve patient safety, the creation of tools to promote clinical excellence and the implementation of strategies on pathologies with high prevalence and high social and economic cost. The enthusiastic participation of the Regional Health Services as well as that of professional societies and patient associations indicates the usefulness of these initiatives and suggests that they are favourably received.

Likewise, efforts towards the accreditation of health care facilities and services and the continuation of annual teaching audit programmes are strengthening the credibility of a health system that offers high quality care for patients as well as high level post-graduate training. To further these objectives, specific plans and auditor training programmes have been developed.

To step up the implementation of these measures throughout the SNS, in 2008 the Ministry of Health and Social Policy made additional funds available for initiatives aimed at putting these measures in place in all the autonomous communities, and also for research in areas of special interest.

6.1 Quality Plan

The ongoing review of the techniques and procedures used in the health care sector, in the light of the best scientific knowledge, requires instruments capable of assessing the validity of such techniques and procedures from the vantage point of effectiveness and efficiency in health care delivery.

It is for this reason that the Ministry of Health and Social Policy has developed a Quality Plan for the SNS. The initiative began at the II Conference of Presidents of the Autonomous Communities held in 2005, where an initial budget of €50 million was established for 2006. In the two subsequent years, the financial commitment has continued, with the allocation of €50.5 million in 2007 and €51.5 million in 2008.

The mission of the Quality Plan is to improve the quality of the health care delivered to citizens, by developing the actions and instruments that are proposed in the Plan and put at the disposal of the health professionals and

directors of the Regional Health Services operated by each autonomous community. This objective is in keeping with the role of the central government as the general co-ordinator of health care and as the means to ensure cohesion throughout the system, guaranteeing the principle of equal access to its services.

The Plan covers six large action areas that are divided into 12 strategies, each of which is subdivided into objectives and action projects. They are all carried out with the collaboration of scientific societies and patient associations and with the active participation of the Regional Health Services of the Autonomous Communities and the institutions that depend on them.

Adhesion to the activities set forth in the Plan is voluntary and freely undertaken by the participating agents, who understand that the Plan does not intend to substitute or duplicate the numerous actions that have already been put in place in this field by the autonomous communities in the exercise of their powers. The Plan's purpose is rather to complement and reinforce them.

To make certain that the contents of the Quality Plan are well known, in 2008 electronic information tools and on-line consultation mechanisms were developed for use by professionals and they are constantly updated. These tools include electronic news bulletins from the Quality Agency[1] supplements on patient safety[2] and a supplement entitled Impacto.[3] Thus far, 11 editions of the electronic news bulletins have been published, together with 4 patient safety supplements and 10 supplements on impact. They all contain information that is relevant in improving clinical practice. There is also a blog [4] offering news, information about events and relevant documents.

1 News Bulletin of the Quality Agency of the SNS [electronic resource]. Madrid: Directorate General of the Quality Agency of the SNS: 2008. Available at: http://www.msc.es/organizacion/sns/planCalidadSNS/boletinAgencia/boletines-agenciacalidad.html

2 Patient Safety Supplement [electronic resource]. Madrid: General Directorate of the Quality Agency of the SNS: 2008. Available at: http://www.msc.es/organizacion/sns/planCalidadSNS/boletinAgencia/suplementoSeguridadPaciente/index.html

3 Impact Supplement [electronic resource]. Madrid: General Directorate of the Quality Agency of the SNS: 2008. Available at: http://www.msc.es/organizacion/sns/planCalidadSNS/boletinAgencia/suplementoImpacto/index.html

4 Blog. Quality Plan for the SNS [website]. Madrid: General Directorate of the Quality Agency of the SNS: 2007. Available at: http://blog.plandecalidadsns.es/

6.2 Quality Awards

To motivate professionals and health organisations who are working on continuous quality improvement, Quality Awards are given every year. These prizes are designed to be a means to stimulate best practices and to further their dissemination.

With this initiative, the Ministry of Health and Social Policy intends, on the one hand, to reward the health institutions, facilities, teams, groups and services that have stood out above the rest in their endeavours to improve the quality of the care services and, on the other hand, to publicly acknowledge initiatives undertaken to improve the quality of health care through innovative projects.

Prizes are awarded in five categories: Innovation in Overall Care Quality Improvement, Best Clinical Practices, Quality and Equality, Transparency and, finally, Outstanding Achievement in Care Quality Improvement, at either the individual or the institutional level. The last category is the only one not accompanied by prize money.

The rules for participating appear in Ministerial Order SCO/982/2007, of 2 April 2007, and the call to participate in the second edition of the awards was made in Ministerial Order SCO/677/2008, of 27 February 2008. From among the almost one hundred projects submitted, ten were selected and awarded a total of €458,480 in prize money additional information is available at http://www.msc.es/organizacion/sns/planCalidadSNS/premiosCalidad2007/ home.htm.

In 2008, two institutions were awarded the ***Prize for Innovation in Overall Care Quality*** Improvement: the Foundation for the training and research of health professionals in Extremadura (FUNDESALUD), for the project "Regional Observatory of Palliative Care of Extremadura" and also to the Balearic Health Service, for the project "Medical history and the registry of acute coronary syndrome."

The ***Prize for Best Clinical Practices*** was awarded to the Vall d'Hebron University Hospital for its project "Application of information technology to the health care sector: the Teleictus Project," to the San Carlos Clinical Hospital transplant co-ordination unit for its project "Organ donation and transplant" and also to the Northern Almería Health Management Area-La Inmaculada Hospital, for the project put in place by its gynaecological service "Perinatal medicine: universalising humanitarian delivery in Spain."

The ***Prize for Quality and Equality*** went to the Public Health Institute of Navarra, for its project "Health promotion in the gypsy community of Navarra 1987-2007" and to the Primary Care Management Unit of Albacete (Castilla-La Mancha Health Service), for the project "Dental and oral health care for the disabled."

The ***Prize for Transparency*** was awarded to the projects: "Variability and safety in the use of medicines" by the Pharmacoepidemiological Group of the Spanish Society of Hospital Pharmacology and the Gaspar Casal Foundation; and the project "Electronic Medical Records" of the Zaldívar Hospital.

Finally, the ***Prize for Outstanding Achievement***, which pays tribute to an entire career devoted to care quality improvement, was given to Dr. Pedro J. Saturno Hernández, for his years of work in teaching, research and consultancy in quality management in health care at the national and international levels.

6.3 Patient Safety

Continuing the efforts made in relation to the ***Patient Safety Strategy*** initiated by the SNS in 2005, in 2008 the Quality and Innovation Agency of the SNS promoted activities to improve patient safety information and the culture of safety at the professional level and also among citizens, the development of information systems on adverse events and the introduction of safe practices in care facilities.

Promoting patient safety knowledge and culture is the vital first step that allows further initiatives to be taken. To increase awareness regarding this issue, a specific website[5] has been created, with documents, news, information about events, links to on-line tutorials and to other interesting websites. There is now also a patient safety library[6], organised by subject matter, to which 570 new documents were added in 2008.

In addition, more information was made available with the publication of relevant studies and articles from scientific journals, and also through participation in national and international events. All of this is available at http://www.msc.es/organizacion/sns/planCalidadSNS/ec03_doc.htm.

Participation in meetings and forums in Spain and in other countries is essential because it promotes the exchange of information and experiences. In 2008 Spain took part in various national and international meetings and events organised by the European Commission, the European Network for Patient Safety, the European Presidency, the Product Safety Working Group, WHO and OECD, among others.

5 Patient Safety [website]. Madrid: Ministry of Health and Social Policy; 2008. Available at: http://www.seguridaddelpaciente.es

6 Patient Safety [website]. Madrid: Ministry of Health and Social Policy; 2008. Library. Available at: http://www.seguridaddelpaciente.es/index.php/lang-es/biblioteca.html

Deserving of special mention is the 4th International Conference on Patient Safety, organised in Madrid by the Quality and Innovation Agency of the SNS. It was attended by over 900 professionals and patients from over 20 countries[7].

Patient safety training is undergoing considerable expansion throughout the SNS. The most important educational efforts in 2008 included:

- The first Interuniversity Masters course in Quality Care and Patient Safety, with the participation of 30 students from several autonomous communities.
- Four editions of the On-line Course on Patient Safety[8] with the participation of 205 professionals from Spain, Portugal and Latin America.
- The on-line course on the prevention of adverse events[9]. This course is a multimedia training module for undergraduates and postgraduates, with didactic material for the instructors.

In addition, the Ministry of Health and Social Policy has provided funding to the autonomous communities for basic courses on patient safety aimed at medical, nursing and pharmacy personnel.

Another line of work undertaken as part of the Patient Safety Strategy is the ***design and development of information systems*** for reporting incidents related to patient safety. The purpose of such reporting systems is to understand, from a systemic perspective, how and why adverse events occur, so that they can be avoided in the future. To achieve this, international legislation was analysed and professionals from 60 scientific societies were asked to complete a questionnaire. Two focus groups were created with representatives of patient and consumer associations, two consensus meetings were held with experts in the field to find out their opinions and suggestions and, finally, a prototype reporting system was developed for pilot testing in two SNS hospitals.

To support the autonomous communities in their efforts to ***implement the measures proposed in the Patient Safety Strategy***, the Ministry of Health

7 The presentations are available at:
http://www.seguridaddelpaciente.es/index.php/component/content/article/75.html

8 Risk management and improving patient safety: tutorial and support tools. Madrid: Ministry of Health and Consumer Affairs; 2006. Available at:
http://www.seguridaddelpaciente.es/formacion/tutoriales/MSC-CD2/entrada.swf

9 Patient safety and the prevention of adverse events in health care. Madrid: Ministry of Health and Consumer Affairs; 2007. Available at:
http://www.seguridaddelpaciente.es/formacion/tutoriales/MSC-CD1/

and Social Policy made credit available specifically for this purpose and agreements have been signed for the development of safe clinical practices.

Agreements were signed with the Spanish Society of Critical Care Medicine and Coronary Units for the promotion of safe practices in critical care units and with the Spanish Association of Surgeons for the implementation of safe surgical practices in the treatment of colon cancer. Agreements were also reached with the Spanish Society of Family and Community Medicine, for the promotion of safe practice recommendations to primary care health professionals.

To promote ***research in patient safety***, this subject matter was included in the 2008 call for applications for Strategic Action in Health grants, in the framework of the National Plan for Scientific Research, Development and Innovation 2008-2011. It was also included in the call for applications for grants in Health Technology Assessment at the Carlos III Health Institute.

The Ibero-American patient safety systematic review group has registered and is co-ordinating six Cochrane reviews. It has also developed a specialised register of relevant studies on patient safety to aid in the identification of studies on systematic reviews, articles and documents in this field. A total of 571 documents have been identified thus far.

Also, a study was conducted on Care Quality Standards for Patient Safety in SNS hospitals, an initiative known as the SENECA project.[10]

Finally, a questionnaire with which to analyse patient perception of safety in SNS health care services was designed and validated. The results will be presented at the end of 2009.

It must be highlighted that progress in the matter of patient safety requires patient ***engagement.*** Of special relevance in this regard is the promotion of the "Patients for Patient Safety Statement" and its signing by 25 associations and federations, which represents the majority of such bodies in Spain. Also, a Citizen Network of Trainers in Patient Safety[11] along with a virtual classroom offering training and information resources.

6.4 Clinical excellence

In the area of clinical excellence, in 2008 special emphasis was given to the task of documenting unjustified variations in clinical practice and in reducing such variations. The following can be considered the most relevant actions:

10 Care quality standards for patient safety in SNS hospitals. SENECA project: technical report 2008. Madrid: Ministry of Health and Social Policy; 2009. Library. Available at: http://www.msc.es/organizacion/sns/planCalidadSNS/docs/SENECA.pdf

11 Citizen Network of Trainers in Patient Safety. Madrid: Ministry of Health and Social Policy; 2009. Available at: [http://formacion.seguridaddelpaciente.es/]

- Validation studies of international quality indicators in patient safety and avoidable hospitalisation, using data from the Minimum Basic Data Set used in Spanish health care.
- Financing of research projects in Health Technology Assessment at the Carlos III Health Institute.
- Continued financing of access in Spanish to the Cochrane Library[12], which received approximately 4500 visits in 2008, and the Joanna Briggs Institute Library[13], which received 21,381 visits in 2008. Access is universal and free of charge, from any computer located in Spanish territory, for health professionals, consumers, care-givers or any other interested person.
- The introduction in December 2008 of the Clinical Excellence metasearcher[14] which allows users to perform a single search on clinical evidence in various databases in English and Spanish. It also has built-in access to the Cochrane Library Plus, important secondary journals, health alerts, repositories of Clinical Practice Guides and technical reports, enabling consultations to be made from one point, with links to the best resources available.
- Preparation and use of Clinical Practice Guides associated with the Health Strategies, reinforcing and extending the Guía Salud Project and training professionals in these methodologies. Clinical Practice Guides have been published on eating disorders, schizophrenia and incipient psychosis, depression, stroke, anxiety disorders in primary care, type 2 diabetes, palliative care and prostate cancer.
- There is also a methodological guide for the design and preparation of Clinical Practice Guides, in paper and digital format, which can be accessed at http://www.guiasalud.es/egpc/index.html. In addition, work has begun on methodological manuals with which to update and implement the Clinical Practice Guides, through projects funded by the Carlos III Health Institute. Also specific lines of research were funded on the Clinical Practice Guides, their introduction and their evaluation.

Finally, the website GuíaSalud[15] broadened its scope, intentions and contents in 2008, with the project Guía Salud-Library of Clinical Practice Guides in the SNS.

12 The Cochrane Library Plus [Internet database]. Oxford: Update Software Ltd; 1998. Available at: http://www.update-software.com/Clibplus/ClibPlus.asp

13 JBI CONnECT Spain [Internet database]. Adelaide, South Australia: The Joanna Briggs Institute; 2008-[updated 4 November 2008]. Available at: http://www.joannabriggs.edu.au/

14 Clinical Excellence [website]. Madrid: Ministry of Health and Social Policy; 2008. Available at: http://www.excelenciaclinica.net/

6.5 Standards, accreditation and audits

In 2008 the Quality Agency of the SNS prepared five documents on quality and safety standards and recommendations[16] with the participation of groups of experts and representatives from the professional associations most closely related to the different units discussed, and also of other health professionals who have outstanding experience and knowledge in the field. These recommendations are not normative. Instead, their purpose is to put all the elements that contribute to improving the safety and quality conditions of the different units and services at the disposal of health care authorities, public and private managers of health services and health professionals. The documents pay special attention to vital issues such as safety and patient rights, organisation, unit management and physical structure, and the human and material resources that should be available. The topics of the documents are: Childbirth: Standards and Recommendations for Hospital Maternity Units; Standards and Recommendations for Surgery Units; Standards and Recommendations for Multiple Pathology Units; Standards and Recommendations for Major Outpatient Surgery Units and Standards and Recommendations for Day Hospital Units.

As part of the quality improvement endeavour and within the Ministry of Health and Social Policy's sphere of responsibility, great importance is given to the processes for accrediting and auditing health care facilities and services. These processes are deemed very useful in ensuring fulfilment by the facilities and services of their duty to provide specialised training in the health sciences, and also in the accreditation of SNS Reference Facilities, Services and Units (CSUR-SNS), as provided by Royal Decree 1302/2006. Specific auditing plans and auditor training programmes have been developed for both.

In 2008 ***CSUR-SNS accreditation*** was given to a total of 39 ophthalmology units in 17 hospitals. Accreditation in the speciality of oncology was given to a total of 4 units located in 4 hospitals. As for transplants, a total of 30 units located in 13 hospitals became accredited reference facilities and in plastic surgery accreditation was given to a total of 10 units located in 9 hospitals.

During this year, the Quality Agency of the SNS also performed the auditing procedure for the future accreditation of centres and drew up the

15 Guía Salud. Zaragoza: Published by Instituto Aragónés de Ciencias de la Salud; Madrid: Ministry of Health and Social Policy; 2004-[updated 2 July 2009]. Available at: http://www.guiasalud.es/

16 Quality and Safety Standards and Recommendations.

Auditing Plan for the proposed CSUR-SNS[17]. Thus far, 54 audits have taken place.

As for the ***audits of teaching centres and units***, every year the Ministry of Health and Social Policy draws up an Auditing Plan to support the process by which centres and units that provide post-graduate training are accredited. In the SNS, such training takes place in teaching centres and units that have been accredited specifically for such purpose and are audited regularly.

There are currently 2954 accredited teaching units, of which 2610 are hospital units located in 260 hospitals. There are also 157 family medicine units, 19 preventive medicine and public health units, 102 clinical psychiatry and psychology units and 52 units for training in various nursing specialties.

As part of the Auditing Plan for teaching units, in 2008 a total of 229 audits of teaching centres or units were conducted. These audits are performed in co-ordination with the autonomous communities, through a representative designated by them for this purpose.

17 Auditing Plan for the CSUR-SNS http://www.msps.es/organizacion/sns/planCalidadSNS/ec02.htm

Table 6.1. Teaching audits. 2008

	HOSPITALS	UNITS	TOTAL
Andalucía	6	25	31
Aragón	1	11	12
Asturias	1	7	8
Baleares	0	3	3
Canarias	1	9	10
Cantabria	1	3	4
Castilla y León	6	13	19
Castilla-La Mancha	2	12	14
Cataluña	6	22	28
Comunidad Valenciana	7	12	19
Extremadura	0	3	3
Galicia	3	15	18
Madrid	3	30	33
Murcia	2	7	9
Navarra	0	7	7
País Vasco	2	7	9
Rioja	0	2	2
Ceuta	0	0	0
Melilla	0	0	0
TOTAL	41	188	229

Source: Office of Health Care Planning and Quality. Quality Agency of the SNS. Ministry of Health and Social Policy

6.6 Health strategies in care processes

From the very beginning, one of the tasks called for by the Quality Plan for the SNS has been the preparation of Health Strategies aimed at improving the health services provided by the SNS in cases of pathologies of high prevalence and high social and economic cost. The purpose of these Strategies is to improve the quality of the care provided, in co-ordination with all the Regional Health Services, reinforcing the principles of equity and cohesion that underlie the constitutional right of all citizens to receive health care.

The preparation of the strategies for highly prevalent diseases follows a procedure that has been well-defined and consolidated over the past two years. It is the responsibility of the Interterritorial Council of the SNS, at the proposal of the Ministry of Health and Social Policy, to decide which specific pathologies will be addressed in the strategies. This decision leads to various actions in the areas of awareness, training and research, which are agreed upon and approved by the Interterritorial Council and then implemented by the autonomous communities.

Once each strategy has been adopted, its objectives and recommendations serve as guidelines for the 17 Regional Health Services, and also for INGESA, the body in charge of health services in Ceuta and Melilla. It is the duty of the regional governments to incorporate into their respective health plans and specific programmes the means and resources necessary to fulfil the objectives set forth in the strategies. With this methodology the autonomous communities will progressively converge, each according to its abilities, characteristics and criteria, towards common quality standards, thus fulfilling the principles of cohesion and equal access to health care.

In 2008 the Interterritorial Council approved the Stroke Strategy and the first evaluation reports on the Cancer Strategy and the Ischaemic Heart Disease Strategy. Work was begun on the COPD Strategy, the Rare Disease Strategy. Also, initial evaluations were begun on the Diabetes, Mental Health and Palliative Care Strategies.

In addition, Britain's National Patient Safety Agency's report on the safety of mentally-ill patients ("With Safety in Mind") was translated into Spanish ("Seguridad en Mente"[18]).

Also within the context of the Mental Health Strategy, a "Youth and Children Report" was prepared, for presentation in 2009 to the Interterritorial Council, and work began at the University of Granada on a project to develop a best practices protocol for non-voluntary treatment. Other relevant events in relation to the Mental Health Strategy were: the signing of an agreement by the Ministry of Health and Social Policy and the Spanish Society of Psychiatry for the creation of a Mental Health Observatory and the funding, preparation and translation of the "Human Rights in Mental Health Report."

With the aim of financing certain actions undertaken within the context of the Health Strategies in 2008, the Interterritorial Council approved the lines of funding and the criteria for the distribution of funds to the autonomous communities and INGESA for implementation of the Health

18 With Safety in Mind: Mental health and patient safety services
http://www.msc.es/organizacion/sns/planCalidadSNS/docs/seguridad_en_mente.pdf

Strategies. Specifically, funds were provided for projects related to the Ischaemic Heart Disease, Cancer, Diabetes, Mental Health, Palliative Care and Stroke Strategies. The criterion used for distribution of the credit was population.

In 2008 the autonomous communities and INGESA presented 87 funding requests for projects related to the implementation of the Health Strategies. They were distributed as follows: 14 involved cancer, 17 ischaemic heart disease, 12 diabetes, 15 mental health, 15 palliative care, 7 stroke and 7 were projects involving more than one Strategy.

Through the resolution adopted by the Interterritorial Council at its meeting on 18 June 2008, specific additional funding was approved for the Mental Health Strategy and was used to finance 70 projects.

Ministerial Order SCO/1166/2008, of 9 April 2008, provides that economic assistance will be given to not-for-profit national bodies that collaborate in activities favouring cohesion, equity and quality in health care and in the correction of inequalities, all in the framework of the Health Strategies and the Quality Plan for the SNS. This Ministerial Order allowed 36 projects related to the Health Strategies to be funded.

Finally, Royal Decree 2064/2008, of 12 December 2008, includes a provision on direct subsidies for the autonomous communities and Ceuta and Melilla, for the implementation of the Palliative Care Strategy. The reason for such subsidies was to strengthen implementation of this Strategy, and thus improve the information, training, research and awareness of this matter. Other achievements to be highlighted are the collaboration agreement made with "La Caixa Foundation" regarding the introduction of the Palliative Care Strategy, a one-day conference on techniques for Strategy implementation and the designation of the Catalan Institute of Oncology as a WHO Collaborating Centre.

Among the steps taken by the autonomous communities and INGESA with regard to the introduction and development of Cancer, Ischaemic Heart Disease, Diabetes, Mental Health and Palliative Care Strategies, the ones shown in Table 6.2 deserve to be mentioned.

Table 6.2. Actions and progress in the introduction of plans and programmes on cancer, ischaemic heart disease, diabetes, mental health and palliative care

Andalucía	
Cancer	Introduction of the 2nd Comprehensive Oncology Plan 2007-2012 and of quality indicators related to the SNS Cancer Strategy
Ischaemic Heart Disease	Update of the integrated care process in cases of cardiovascular risk set forth in the Comprehensive Heart Disease Plan 2005-2009 and extension of the plan to 2011
Diabetes	Evaluation of the 1st Comprehensive Diabetes Plan and preparation of II Comprehensive Diabetes Plan 2009-2013
Mental Health	Evaluation of the 1st Comprehensive Mental Health Plan and publication of the 2nd Comprehensive Mental Health Plan 2008-2012
Palliative Care	Preparation and dissemination of the Palliative Care Plan 2008-2012
Aragón	
Cancer	Presentation in all health care sectors of care processes for breast cancer and colon cancer
Diabetes	Presentation of the care process for type 2 Diabetes in the sector Zaragoza III, for purposes of evaluating it and expanding it to the other health care sectors in 2009
Mental Health	Initial evaluation/update of the Strategic Plan on Mental Health 2002-2010
Palliative Care	Presentation of the Aragón Programme on Palliative Care
Asturias	
Cancer	Preparation of the Programme for the Early Detection of Cervical Cancer and yearly evaluation of the Programme for the Early Detection of Breast Cancer
Baleares	
Cancer	Continuation of Cancer Strategy 2007, population-based cancer registry in Mallorca
Ischaemic Heart Disease	Beginning of the regional registry of Acute Coronary Syndrome with ST segment elevation
Diabetes	Introduction of Diabetes Strategy
Mental Health	Continuation of the Strategy and Action Plan in Mental Health 2006-2008
Palliative Care	Introduction of the Palliative Care Strategy
Canarias	
Cancer	Publication of Programme on Care for Colorectal Cancer. Creation of the CPC for colon cancer and design of specific software
Ischaemic Heart Disease	The Ischaemic Heart Disease and the Diabetes Programmes have been fused into one: Cardiovascular Disease Programme for the entire health care network (primary and hospital care)
Diabetes	
Mental Health	Introduction of a project for a better quality approach to common mental health disorders in Primary Care

Cantabria	
Cancer	Evaluation of the Programme for the Early Detection of Breast Cancer. Pilot testing of the Programme for Population Screening for colorectal cancer in four health centres and one reference hospital
Palliative Care	Phase 2 of Introduction of the Palliative Care Programme. Design and definition of the minimum basic data set to be used in the palliative care registry
Castilla-La Mancha	
Cancer	Monitoring of the Oncology Plan 2007-2010
Ischaemic Heart Disease	Coronary reperfusion procedure in mobile medical units
Diabetes	Monitoring of Comprehensive Plan on Diabetes Mellitus 2007-2010
Mental Health	Monitoring of Mental Health Plan 2005-2010
Palliative Care	Monitoring of the Oncology Plan 2007-2010
Castilla y León	
Cancer	Monitoring of the Programmes for the Early Detection of Breast Cancer, Prevention of Cervical Cancer, Genetic Counselling in Hereditary Cancer
Ischaemic Heart Disease	Monitoring of the Regional Strategy on Ischaemic Heart Disease and Cerebrovascular disease
Diabetes	Preparatory phase
Mental Health	Preparation of 2nd Regional Strategy on Mental Health and Psychiatric Care
Palliative Care	Preparatory phase
Cataluña	
Cancer	Monitoring of Master Plan on Oncology 2005-2007
Ischaemic Heart Disease	Monitoring of the Master Plan on Circulatory System Diseases, which includes "Código Infarto" for the introduction of the SNS Strategy on Ischaemic Heart Disease
Mental Health	Monitoring of Master Plan on Mental Health and Addictions 2005-2007
Palliative Care	Monitoring of Master Plan on Social health care 2005-2007
Extremadura	
Cancer	Monitoring of Comprehensive Plan against Cancer 2007-2011
Ischaemic Heart Disease	Monitoring of Comprehensive Plan on Diseases of the Circulatory System 2007-2010
Diabetes	Monitoring of Comprehensive Plan on Diabetes 2007-2012
Mental Health	Monitoring of Comprehensive Plan on Mental Health 2007-2012
Palliative Care	Monitoring of Palliative Care Programme

Galicia	
Cancer	Monitoring of Comprehensive Strategy for the Care of Cancer begun in 2007. Inclusion of women aged 50-68 years in population screening for breast cancer programme
Ischaemic Heart Disease	Monitoring of the integrated programme to diminish mortality caused by myocardial infarction (PROGALIAM), begun in 2006
Diabetes	Monitoring of Diabetic Retinopathy Care Programme begun in 2007
Mental Health	Monitoring of Strategic Plan on Mental Health 2006-2012
Palliative Care	Monitoring of Palliative Care Plan begun in 2007
Madrid	
Cancer	Monitoring of Comprehensive Plan to Control Cancer and programmes for the early detection of breast cancer, detection and counselling in hereditary cancer and population screening for cervical cancer
Ischaemic Heart Disease	Monitoring of Cardiovascular Health Plan begun in 2007
Diabetes	Monitoring of Programme to Prevent and Control Diabetes Mellitus 2007-2011. Preparation of report on the prevalence of Diabetes Mellitus and cardiovascular risk factors (PREDIMERC)
Mental Health	Evaluation of Psychiatric Care and Mental Health Plan 2003-2008. Preparation of Plan 2009-2011
Palliative Care	Monitoring of Comprehensive Plan on Palliative Care 2005-2008
Murcia	
Cancer	Evaluation of Breast Cancer Prevention Programme 2007-2008. Evaluation of pilot testing in 2006-2007 of the Colorectal Cancer Prevention Programme, and the plan to extend the programme throughout Murcia
Palliative Care	Monitoring of Comprehensive Palliative Care Plan begun in 2007
Navarra	
Cancer	Evaluation of the programme for population screening for breast cancer and psychological support following diagnosis and treatment. Monitoring of programme for population screening for cervical cancer and colorectal cancer
Diabetes	Monitoring of Cardiovascular Risk Programme
Mental Health	Introduction of Mental Health Plan for Children and Youth. Monitoring of Psychiatrist- Intermediary programme and the programme on severe mental illness
Palliative Care	Monitoring of Palliative Care Plan begun in 2000
País Vasco	
Cancer	Evaluation of Plan on Breast and Cervical Cancer. Beginning of programme for the early detection of colorectal cancer
Ischaemic Heart Disease	Yearly evaluation of Plan for Cardiac Rehabilitation
Diabetes	Evaluation of the priority service package in terms of diabetes prevention and control
Mental Health	Monitoring of Strategic Plan on Mental Health
Palliative Care	Yearly evaluation of Palliative Care Plan

Rioja	
Cancer	Monitoring of programme for population screening for breast cancer, included within the Breast Pathology Care Unit since 2004, and for cervical cancer, begun in 2005. Programme for psychological support following breast cancer diagnosis and during treatment
Ischaemic Heart Disease	Monitoring of Plan on Cardiovascular Health 2008
Mental Health	Monitoring of Plan on Mental Health and Psychostimulant Programme
Ceuta	
Cancer	Introduction of Cancer Mortality Programme included in the Health Plan and monitoring of the Programme on Care in Oncological Processes, related to the SNS Cancer Strategy
Ischaemic Heart Disease	Introduction of Cardiovascular Mortality and Morbidity Programme included in the Health Plan and monitoring of the programme on cardiovascular disease care, related to the SNS Ischaemic Heart Disease Strategy
Diabetes	Introduction of Diabetes Mellitus Mortality and Morbidity Programme included in the Health Plan and monitoring of the measures taken in relation to the SNS Diabetes Strategy
Mental Health	Monitoring of some of the objectives of the SNS Mental Health Strategy
Palliative Care	Introduction and monitoring of Triennial Plan on Palliative Care begun in 2007 and related to the SNS Palliative Care Strategy
Melilla	
Cancer	Monitoring of certain objectives of the SNS Cancer Strategy
Ischaemic Heart Disease	Monitoring of certain objectives of the SNS Ischaemic Heart Disease Strategy
Diabetes	Evaluation and monitoring of the introduction of steps related to the SNS Diabetes Strategy
Mental Health	Monitoring of some of the objectives of the SNS Mental Health Strategy
Palliative Care	Introduction of Triennial Plan on Palliative Care related to the SNS Palliative Care Strategy

Notes: Includes the information provided by the autonomous communities and INGESA before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

6.7 Quality in the SNS

To obtain an overview of quality management in the SNS, the autonomous communities were asked to describe the most important aspects of this subject in their region, with special emphasis on the actions carried out in

2008. Their responses can be found in the annexes to this report. A summary of the information they provided appears below.

Andalucía

In 2008 the Quality Plan brought the consolidation of a system of guarantees for citizens, with special attention paid to what are sometimes known as the new rights, such as maximum waiting times. Also important is the development of clinical management frameworks that make use of process management and competency-based management. Furthermore, the building of a knowledge-based culture has begun, as evidenced by the implementation of the plan for health research, development and innovation.

In Andalucía, 300 accreditation processes for health centres and facilities were begun and 143 were concluded; over 1500 professionals are in the process of accrediting their competencies; 4219 on-going training activities have been accredited; and, finally, 8 web pages have been accredited and 27 are in the process of being accredited.

In terms of the Patient Safety Strategy, the Patient Safety Observatory plays an important role. The Observatory has set up a website about safe practices and also makes available the Safe Hands Distinction tool, to be used for self-assessment and recognition of improvements made in the area of hand hygiene. It should be noted that 12 hospital centres, 2 specialised centres with high resolution capacity, 23 health centres and 4 primary care districts have self-assessed their fulfilment of the recommendations.

Aragón

In Aragón the quality management system used in the hospital sterilisation centres has been ISO 9001 certified and the hospital laboratories and specialised care centres have been ISO 15189 certified. A project was also begun to introduce a quality management system in some primary care teams. In addition, regular self-assessment on the organisation of each sector is performed, following the EFQM Excellence Model.

Among other activities, the Functional Patient Safety Unit advised the Aragón Health Service and various general management structures on the subject of safety management; compiled and disseminated initiatives taken in risk management; created an alert system on incidents involving health products; worked to build a culture of safety and safe practices in health care facilities; reinforced systems for the surveillance, prevention and monitoring of adverse events. Furthermore, the hand hygiene project in health care personnel has been expanded to the first level of care and a system ensuring positive patient identification in instances of planned hospitalisation has been introduced in all the region's facilities. Also deserving of mention is the survey conducted on the attitudes and opinions of professionals regarding

patient safety. In addition, an event was organised for shared reflection among patients, researchers and professionals on the subject of patient safety and a brochure was published with fifteen recommendations for patients.

In Aragón basic and advanced training activities have taken place, as well as activities to improve clinical practice, through the use of scientific evidence. In addition to the foregoing, the yearly conference on quality was held and the 26th Convention of the Spanish Society of Quality Care took place.

Baleares

This autonomous community created the Quality Committee, which is chaired by the Regional Minister of Health, and also the Baleares Technical Committee on Quality. The various general management structures and also the specific management structures of primary care, specialised care, the 061 emergency response system and the Single Health Areas are in the process of publishing Service Charters, implementing the EFQM Excellence Model or introducing and developing process maps.

In the area of patient safety, the following projects are in the consolidation phase: protocol on integrated, multidisciplinary handling of sepsis and a project on the safety of high-risk pharmaceuticals and clinical toxicology. There are also projects underway on the conciliation of medication in critical care units and on ways to better determine when emergency and planned caesarean deliveries are necessary.

A surgical safety plan has been introduced in two hospitals. Five critical care units (CCUs) in public hospitals have joined the Zero Bacteraemia Project, which has two lines of action: specific measures to reduce CCU rates of bacteraemia associated with central vein catheters and general measures on patient safety in CCUs.

In all the acute care hospitals the following measures have been put in place: the promotion of hand washing with hydroalcoholic solution for the prevention of nosocomial infection, positive patient identification, fall prevention, the creation of risk management groups and activities to train and increase awareness among professionals.

This region has also participated in the SENECA study and in the measurement of the levels of non-ionising radiation exposure in the personnel who work in public hospitals.

Cantabria

Cantabria has worked towards the introduction of quality management tools, for example, by training professionals in the EFQM Excellence Model and by organising, for the first time, awards for care quality improvement.

In this region Functional Patient Safety Units have been consolidated in health care facilities and patient safety projects have been carried out in

the areas of pharmaceuticals, reduction of catheter-related bacteraemia and the prevention of pressure ulcers.

Castilla y León

In Castilla y León a Regional Centre for Health Accreditation and Quality has been put into operation.

This region has also continued evaluating user satisfaction by means of surveys conducted in various spheres of the health care system. In addition, a procedure has been developed by which patients can exercise their right to receive a second medical opinion with regard to certain diseases.

The EFQM Excellence Model was applied in the health areas and primary care teams, as a tool for self-assessment and improvement.

In the area of pharmaceuticals, accessibility for patients has been increased, in order to improve the information regarding medicines and their safe use. In some hospitals a website containing information on medicines has been created to support the units devoted to patient safety and risk management and, finally, efforts have been made to improve and maintain the system for reporting and learning in the case of incidents caused by medicines.

Other actions include participation in the project to reduce bacteraemia in CCUs and the new line of work that aims to provide safe care for patients allergic to latex.

Castilla-La Mancha

In Castilla-La Mancha, the right to a second medical opinion has been expanded to cardiac surgery and to the surgical treatment of severe scoliosis in youth.

In the area of patient safety, of great importance are the awareness and information campaigns aimed at professionals and patients about safe practices, the building of a culture of safety and the creation of specific working groups in all the spheres of health care. Satisfaction surveys have incorporated questions related to patient perception of and knowledge about safety in care processes.

The following actions are also worth mentioning in the area of patient safety: the commencement of positive patient identification by means of radio frequency and bracelets, the prevention of infection related to hand washing procedures, the prevention of infection due to surgical wounds and the prevention of medicine-related problems arising in the preparation, dispensation or administration stage.

Cataluña

Cataluña has begun a review of the regulations on the authorisation of health care facilities and the first accreditation process has been completed,

involving 83 acute care hospitals. Work has begun on the design of the accreditation model for primary care and social health care.

The study on patient satisfaction with the urgent care services of acute care hospitals has been re-evaluated, as has the study on satisfaction with ambulatory specialised care services.

In the area of patient safety, more than 700 professionals, from more than 100 health care facilities, have participated in various projects, including: positive identification of hospitalised patients, the promotion of hand hygiene, improved safety in critical care units (Zero Bacteraemia Project), the impact of measures aimed at preventing the infection of surgery facilities in cases of elective surgery for colorectal cancer, safe pharmaceutical prescribing in primary care and the prevention of falls.

Extremadura

In 2006 the Framework Plan for Quality Improvement in the Public Health Care System of Extremadura was published. As a result of this plan a Quality Model for Health Centres, Services and Facilities, inspired by the EFQM Excellence Model, was put in place. This model has served as a guide to the standards used for the accreditation of all public facilities and the private facilities with which the government has long-term contracts. Currently over 20 health care facilities and services are included in the aforementioned model.

Also, Extremadura has worked to ensure the protection of the so-called third-generation rights, by creating a Living Will Registry, increasing technology-based channels that improve citizen access to health care and constituting the Bioethics Committees, as well as the Central Commission on Patient Safety within the Extremadura Health Service.

Hospital food services were also among the priorities set by the Regional Ministry of Health and Dependence. For this reason, efforts have been made to obtain ISO 9000, 9001, 14001 and 22000 certification in all the hospital kitchens of the Extremadura Health Service, and some of them have already received such certification. The central laundry services of the Extremadura Health Service have also been ISO certified.

All of this has been made possible by the progressive incorporation of quality objectives and indicators in the management contracts, which has enabled the culture of ongoing quality improvement to reach all professionals and directors. To monitor all of these elements, several methods have been used, including service evaluation reports, quality model audits, self-assessment by the health facilities themselves and also satisfaction surveys, as part of the attempt to measure all the dimensions of overall quality.

Galicia

The advances made in 2008 relate mainly to the plan to improve primary care, which has led to the creation of 1601 jobs (309 of them are for family doctors and 65 for paediatricians). The following ratios have been established: one family doctor for each 1250 IHC (persons with the individual health card), one paediatrician for each 800 IHC, one nurse for each 1250 IHC, one odontologist and hygienist for each 20-25000 IHC, one physical therapist for each 10-15000 IHC, plus one midwife and one social worker for each primary care facility.

Also in the sphere of primary care, efforts are being made to improve the resolution capacity of the services, broadening access to diagnostic tests with and without protocol, and simplifying all necessary procedures through the use of the IHC. For example: electronic medical records, electronic prescription and dispensation, the temporary incapacity form with digital signature, the expansion of the digital signature and the creation of a call centre.

In addition, tools have been developed for self-training: access to electronic publications for all primary care professionals, access to document databases on therapeutics and prescription writing through the web-based service i-Medicinas, and access to statistical analysis programmes.

In the area of patient safety, work is underway on identifying the medication-related adverse events and on ways to improve in this area, and also on the voluntary programme to treat and prevent medication-related errors. In primary care the adverse events related to health care received in paediatric offices were identified. There is also a programme to prevent pressure ulcers in chronic patients recruited at nursing stations and a programme to reduce the catheter-related bacteraemia in CCUs. Training activities took place in patient safety and safe practices, at both the basic and the advanced level.

Madrid

In the Community of Madrid two lines of action deserve to be highlighted: the development of the EFQM Excellence Model and the efforts made in the area of patient safety.

With respect to the EFQM Excellence Model, 300 action plans have been put into effect in 34 management structures and the services have received 124 notifications or accreditations thus far. Also, a survey has been conducted in all the hospitals for determining the improvements that need to be made in environmental management.

In other respects, a centralised study was conducted on the satisfaction of users of primary care, specialised care and SUMMA 112 (the emergency medical response system of the Community of Madrid). Also, a plan specifying

the actions to be taken upon the arrival of new admissions was drawn up and is applied in 90% of the hospitals. All of the primary care management structures have taken action to improve the care given to immigrants.

The Office for Attention to Patients was created and given specific functions in patient safety. Plus, all the health care management structures in Madrid have Functional Risk Management Units. Advances have been made in positive patient identification, in hand washing with alcohol solutions, in the updated protocol for the prevention of falls and pressure ulcers. Also, Madrid is participating in the Zero Bacteraemia Project to reduce catheter-related bacteraemia in CCUs. The units have carried out over 554 training activities. The intranet of the Regional Ministry of Health also has a new site specifically devoted to health care risks and patient safety.

In the area of pharmaceuticals, work has focused on comprehensive real-time reporting of incidents related to health products, on the medicines portal for patients. Also, tools have been developed for the surveillance and control of nosocomial infection. A computer application has also been put into operation for the alert and epidemic outbreak tracking system of the epidemiological surveillance network, with real time information.

Murcia

In Murcia the EFQM Excellence Model is being introduced in all management bodies. They all have internal improvement plans and nine have received the European Committed to Excellence award. Evaluations have been conducted on the quality of nursing care, discharge reports and informed consent documents. Two questionnaires on satisfaction with external consultations and urgent care services in hospitals were added to the survey on perceived quality and user satisfaction. In addition, 237 professionals participated in 12 courses on care quality and funding was given to research projects on quality management in health care.

With regard to patient safety, the system for positive patient identification in the areas of urgent care, day hospital and major outpatient surgery was expanded. A plan for the surveillance of nosocomial infection was drawn up. As part of this plan, surveillance and control teams were created and team members received specific training. Also, actions to mark International Hand Washing Day were organised in all the health management bodies in Murcia. Furthermore, training in risk management and the culture of safety was given to the functional units and an on-line course was prepared for elementary training in patient safety.

Navarra

The Health Service of Navarra has participated in the validation study of the OECD quality indicators related to adverse events.

In the Virgen del Camino Hospital a new system for the identification of mothers and newborns has been introduced, as a method of improving the childbirth process.

A Patient Safety Observatory has been created. Methodological training in quality and safety has been provided to directors, middle management and specific professional groups, and research in patient safety has been promoted.

Actions were also taken to reduce the incidence of catheter-related bacteraemia in critical care units. Safe practices were introduced in surgery and anaesthesia; in the prevention of falls; in the prevention of deep vein thrombosis and pulmonary thromboembolism in operated patients; in the prevention of infection in surgical wounds. Additional actions were aimed at preventing errors in medication through single dose dispensing in hospitals, e-prescription, evaluating the pharmacosurveillance programme and also through reducing incidences in the issue of computerised prescriptions, by means of a real-time alert system in primary care.

Transfusion safety and traceability were improved by establishing a standardised protocol. In the area of palliative care, training activities were organised for doctors and nursing staff. In primary care, training activities were provided to guarantee concordance and quality in non-mydriatic retinography testing in diabetic patients, in spirometry and in the control of oral anticoagulant therapy.

País Vasco

The organisations comprising Osakidetza requested an external evaluation with the EFQM Excellence Model and recognition was awarded to the Bilbao primary care area, the Cruces Hospital and the School of Nursing.

Process management has been introduced and primary and specialised care have been ISO certified; 87% of the organisations use a certified quality management system.

Throughout 2008 patient satisfaction surveys were conducted among patients in the following settings: acute care hospitals, urgent care services at hospitals, medium- and long-stay hospitals, primary care consultations with doctors and nurses, psychiatric hospitals, patients receiving home hospital care and also among parents of hospitalised children.

In the nursing care process, after six external evaluations performed in acute care hospitals and medium- and long-stay hospitals, in 2008 self-assessments of the process took place. The overall rating of the Nursing Care Process was 85.56% and the nurses expressed a satisfaction rating of 81.97%.

In the area of patient safety, a total of 10 best practices were adopted, 8 of them received awards at the European Quality Week.

Studies on the prevalence and incidence of nosocomial infection have been performed in acute care hospitals and in medium- and long-stay hospitals. The improvement areas identified following the external evaluation mainly involve the evaluation of the dissemination of and adherence to the care protocols used for procedures such as the insertion of endovascular catheters, urinary catheters, hand hygiene and the isolation policy.

All of the primary care areas and all of the three out-of-hospital mental health care organisations participated in the project, which includes safety training and awareness, training in the use of risk management tools and proactive-reactive analysis of safety incidents. This activity has reached over 600 professionals. Throughout the year, the protocol used in the prevention of pressure ulcers and in the care provided to affected patients has been introduced or updated, and the protocol for the prevention of falls is in the process of being updated.

Rioja

In Rioja a quality management system has been introduced, using the ISO methodology, in the food safety service, in medical diagnosis areas, in clinical and administrative areas, in the central services in hospitals (specialised services that support other clinical activities) and in the office of the patient ombudsman. Also, the home hospital unit and the food services at San Pedro hospital have been ISO certified for a second time.

The EFQM Excellence Model was introduced in the Occupational Health Unit, in the Office of Human Resources and in certain services of the Office of Insurance, Accreditation and Benefits.

As part of the patient safety agenda, a Functional Patient Safety Unit was created in San Pedro hospital and a system for positive patient identification, a programme for the prevention of nosocomial infection through hand washing with hydroalcoholic solution and the protocol used in the administration of blood and blood derivatives were all put in place. In addition, the registry of falls was updated, the guide to the prevention of pressure ulcers was published, a procedure for anti-coagulant treatment was created and the processes of ten specialties were monitored.

Comunidad Valenciana

This autonomous community passed a law on the right to health of children and adolescents (Ley/2008, de 20 de junio 2008), to better protect the population under the age of 18 years. This legislation addresses, among other issues, the rights related to birth and breastfeeding, early detection and screening programmes, genetic counselling, early diagnosis of metabolic and endocrine disorders, the right of children to take part in the decisions

regarding their health and in informed consent. It also regulates the rights of children and adolescents with disability and chronic illness, and the no-cost pharmaceutical benefits to which minors with a disability are entitled. In cases of unprotected minors, the law provides that they will stay in the hospital until their custody situation has been resolved and, finally, it regulates the prevention and detection of child abuse and the procedures to be followed when cases are identified.

The patient safety management plan calls for the following actions: the definition of the quality functions of all departments, the evaluation and comparison of quality improvement results, the introduction of innovative programmes for training in safe practices and the deployment of a plan to disseminate the results of the initiatives and programmes promoted by the Office of Quality and Patient Attention.

INGESA

The most important aspects of the quality improvement efforts made in the cities of Ceuta and Melilla (the two health areas managed by INGESA) are the following: improving the programme of care provided after discharge from the hospital and, in primary care, making it easier to access health care by offering telephone appointment services, shortening waiting times at appointments and increasing the overall satisfaction rating given by users. Another objective is to improve the quality of pharmaceutical prescription at primary and specialised care levels.

Positive patient identification was introduced in high-risk hospital patients, using an orange bracelet for adults and a blue bracelet for children, different from the usual white ones. In Ceuta the percentage of persons who wore such bracelets was 80.43% overall, while in Melilla it was 74% overall, and almost 100% in the CCU. To evaluate the plan to prevent health care associated infection (by promoting hand washing with hydroalcoholic solution), the consumption of hydroalcoholic consumption in primary care and in the two INGESA hospitals was measured. A sustained increased was observed in all cases.

In Ceuta the plan to promote and raise awareness about patient safety, in both patients and professionals, was published and disseminated among all the professionals in the area. In Melilla courses, workshops and the first one-day conference on patient safety and risk management took place. In Ceuta quality care awards were given and the second one-day conference on patient safety and risk management took place.

Conclusions

It can be concluded that all of the autonomous communities are using continuous improvement models, either the family of ISO standards or the

European Framework for Quality Management (EFQM). Some of the autonomous communities are in the process of accrediting or reaccrediting centres, processes, services, professional areas or complete organisations, while others are defining process maps or beginning to introduce them.

All of the autonomous communities have engaged in activities to instil the culture of safety and provide training in this area, and such activities have targeted all levels of personnel, from the highest-ranking directors through the whole range of professionals. Many have set up quality awards and most have also worked towards creating systems, or improving existing systems, to provide information about medicines, their safety and correct use, to both professionals and patients. Quality Units or Functional Patient Safety Units, as appropriate, have been created and consolidated in the different health areas or management structures.

Actions aimed at the promotion of hand washing with hydroalcoholic solution to prevent nosocomial infection, the reduction of catheter-related bacteraemia in CCUs (Zero Bacteraemia Project), positive patient identification, the prevention of falls and of pressure ulcers are also present in most autonomous communities.

7 Equity

7.1 Reducing health inequalities in Spain

Worldwide report on social inequalities in health

On 28 August 2008, the WHO Commission on Social Determinants of Health presented its final report about social inequalities in health, entitled "Closing the gap in a generation: health equity through action on the social determinants of health." The report lays out the scientific rationale for strategic interventions aimed at reducing health inequalities.

Health inequalities arise because of the circumstances in which people live, work and grow old, and from the type of systems put in place to deal with ill health. At the same time, the conditions in which people live and die are shaped by political, social and economic forces (socio-economic conditions, cultural factors, education, gender, employment, housing, etc.), which means that these inequalities are, for the most part, avoidable and unfair.

The Commission on Social Determinants of Health states that achieving health equity is possible with the right measures and policies and that the knowledge required to achieve it is now available. One of the most important actions is to apply an intersectoral approach, making health equity a part of all policies.

Given the relevance of the report, in 2009 the Ministry of Health and Social Policy invited Professor Sir Michael Marmot, the Commission's Chair, to take part in its presentation in Spain. The aim was to make the results of the Report[1] known, encourage social debate about the consequences of these findings at the national level and raise awareness among professionals, decision-makers and society as a whole about the importance of equity in health.

National group of experts on social inequalities in health

In November 2008 Spain created its own national group of experts on social inequalities in health. Its principal purpose was to formulate proposals for interventions aimed at reducing social inequalities in health in the short, medium and long term in Spain. This interdisciplinary group has been working since 2008 and will continue through 2010. Its work agenda is based upon:

- Understanding and presenting the conceptual framework of inequality.
- Reviewing existing policies about social inequalities in health, at both the European and the national level.

1 Commission on Social Determinants of Health – Final Report.
http://www.who.int/social_determinants/thecommission/finalreport/es/index.html

– Developing a Proposal for Interventions to reduce social inequalities in health.
– Identifying suitable areas for specific Action Plans that will contribute to the reduction of inequalities.

Health equity in cities

In 2008, as part of the agreement by the Ministry of Health and the Spanish Federation of Municipalities and Provinces to strengthen the ***Spanish Network of Healthy Cities,*** special attention was paid to many of the network's strategic activities related to equity and, specifically, the introduction of health plans in which equity is an overarching theme.

The ongoing collaboration between the Ministry and the Federation has brought about the adhesion of 143 cities to the Spanish Network of Healthy Cities, when the figure in 2002 was just 36 cities. Currently, over 100 cities in the Network have put into effect their own health plan and 43 cities are in the processing of creating such a plan.

Likewise, to promote greater health equity between rural and urban settings, actions have been taken to introduce the project in municipalities with fewer than 20,000 inhabitants.

Furthermore, the Action Plan agreed upon by the partnership described above calls for encouraging all local governments in the country, regardless of whether or not they belong to the Network, to implement programmes targeting the most disadvantaged social sectors in terms of equality, health and economic situation.

The aforementioned municipal health plans, as well as other innovative programmes, use the main lines of strategy set by the Healthy Cities Project, such as community participation, health impact assessment to evaluate all kinds of policies, the reduction of poverty, action on the social determinants of health (including gender) to guarantee equity in health, environmental policies and health, sustainable development, transport and health, good governance, healthy urban planning and life-long health, with special emphasis on the beginning of life, childhood, youth and active and healthy ageing in cities.

The Healthy Cities Project has made it possible for local governments to take action in this area, by virtue of the guidelines set by the Ministry in the areas of health and equity. The Spanish Network of Healthy Cities has become a vital instrument in putting national strategies on equity in health into effect at the municipal level.

National strategy on health equity in the Roma community

Belonging to a minority ethnic or cultural group has an influence on the emergence of specific inequalities in health. Such inequalities are the result not just of socio-economic variables but also of barriers that hinder access to

health care services. Inequalities can also arise as a result of ineffective use of such services, resulting from their unsuitableness or even from discrimination.

Although access to Spain's health system is universal, in 2003 it was demonstrated that, with respect to the Roma community, the SNS was having difficulties in two areas: first, in access to health care services and programmes on health promotion and disease prevention, and second, in the health outcomes observed in this community.

A National Strategy for Health Equity in the Roma community has been in place since 2003, thanks to a collaboration agreement (2003-2008) with the Roma Secretariat Foundation. In 2006, a health focus group was created within the State Council of the Roma Community and this body has guided the implementation of the Strategy since that time. This group is comprised of Roma experts and community members who participate actively and decide which lines of actions should be followed as part of the National Strategy for Health Equity, basing decisions upon a situation analysis, planning the main activities and providing technical and financial support for the implementation and evaluation of the actions agreed and carried out through the Strategy.

The most relevant activities include the following: advising, accompanying and building specific capacities related to health intervention in the Roma community, aimed at health professionals, administrations and civil society; training and raising awareness among health professionals throughout Spain and also, to facilitate this process, various publications such as "Health and the Roma Community, "which discusses the foundations of the Strategy and the "Guide to Health Service Interventions in the Roma Community."[2]

Furthermore, debates have been organised on the topic of health and the Roma community, intended for decision-makers, professionals and Roma associations.

National Health Survey conducted in the Roma community

In 2006, the first National Health Survey of the Roma community was conducted. This was a highly significant event because the health of the Roma community in Spain had never been assessed with a specific study using representative samples. In fact, before that time, interventions had been based on local needs and no objective data was available to support, guide or evaluate the interventions necessary to achieve health equity in this population.

2 Health Equity and the Roma Community
http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/desigualdadSalud/comuGitana.htm

The Survey was designed with the following objectives:

- To make a diagnosis of the health of the Roma population in Spain, with special attention to the social determinants of health and the use of health care services.
- To ascertain the Roma community's health status, lifestyles and access to health services and to determine whether a situation of equity exists with respect to the Spanish population as a whole.
- To determine if there are social inequalities in health affecting this community and, if this is the case, to give priority to certain areas of intervention.

The Survey was designed following the same methodological principles as the general National Health Survey and the same or similar variables were selected so that comparative studies can be performed.

The first exploitation of the survey data produced extensive information about the health status of the Roma community, which was analysed by the Group of Professionals with Expertise in Health and the Roma Community, and by the State Council of the Roma Community. A specific forum for the direct participation of the concerned population was also planned: the first national Health Conference of Roma Associations: "Sastipen Va" (Yes to Health), in which over twenty Roma organisations took part. At the conference, the results were analysed and consensus was reached regarding the main strategies to be used to address the inequalities and necessities detected. After the event, a document entitled "Comunidad Gitana y Salud: Conclusiones, Recomendaciones y Propuestas"[3] was published.

Following this initial analysis, the health focus group of the State Council of the Roma Community decided to perform a second statistical exploitation of the survey data, to gain a better understanding of the most significant issues, by comparing the results of the National Health Survey carried out on the Roma population with those of the general National Health Survey. Special attention was paid to variables such as socio-economic status, education, type of housing, and other factors relevant in determining whether the Roma community is in a situation of equity as compared to the general population.[4]

In addition, in 2008 a qualitative research project was performed on lifestyles in the Roma community ("Estilos de vida en la Comunidad

3 Roma Community and Health: Conclusions, Recommendations and Proposals. http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/desigualdadSalud/comuGitana.htm#recomendaciones

4 Equity in Health Conference. http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/desigualdadSalud/jornadaEquidadSalud.htm

Gitana"[5]) with a view to optimising and adapting the interventions in health promotion and disease prevention, bearing in mind the values and beliefs that often underlie the adoption of a given lifestyle. This qualitative research is a vital instrument in reinforcing healthy lifestyles and modifying unhealthy ones.

International co-operation

Spain's experience with the issue of health development in the Roma community has made the Spanish model a point of reference for other European countries.

In 2008, the Ministry of Health and Social Policy participated in a bilateral co-operation project related to the reform of the Bulgarian health care and emergency response systems. The purpose of the reform was to bring about the inclusion of the Roma community in conditions of equity. It also participated in the EU project funded by the European Commission's Directorate General for Health and Consumers (DG SANCO): Health and the Roma Community, analysis of the situation in Europe. This project uses a model similar to the Spanish one in Romania, Bulgaria, Greece, Portugal, Czech Republic and Slovakia, and is directed by the Roma Secretariat Foundation, with the said Ministry acting in a support and advisory capacity.

The Ministry also organised an informative field visit to Spain for the head of WHO offices in Serbia, the purpose of which was to provide advisory assistance for a Serbian pilot programme on development and health in that country's Roma community.

In addition, in 2008 the WHO selected for publication as a case study the work carried out in Spain on health and the Roma community on the national level and, more specifically, the programme put in place in Navarra. "Spain: Health Promotion among Navarre Ethnic Minorities programme"[6] is the name of the publication.

Addressing social inequalities in health in the immigrant population

Over the past two decades Spain has gone from being a country of emigrants to being a land of immigration, and in the past five years the number of foreigners living in this country has been among the highest levels in the European Union. According to the World Population Report published by the United Nations, Spain ranks tenth in the world in number of immigrants.

5 "Lifestyles in the Roma Community".
http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/desigualdadSalud/comuGitana.htm#estilosVida

6 "Spain: Health Promotion among Navarre Ethnic Minorities programme".
http://www.euro.who.int/socialdeterminants/socmarketing/20081022_4

The challenges and opportunities faced by Spain in relation to immigration are no doubt very similar to the ones encountered by nearby European countries, but here the phenomenon has occurred very quickly and there have been some adaptation problems in the basic welfare systems, such as health care and education.

The Health Area of the Strategic Plan for Citizens and Integration (2007-2010), in which the Ministry of Health and Social Policy participates, formulates the strategies necessary to ensure that access to the public sector health care system and to health services takes place in conditions of equality and that it contributes to achieving the integration and full participation of immigrants in the host society.

Furthermore, our society is becoming more and more global, people travel more often and greater distances, and the diseases and conditions that determine health and ill health are no longer local.

In 2008, two publications were presented. The first was a guide to imported infectious diseases[7] and the other was a report on infectious diseases imported by international travellers to the tropics.[8]

The reports analyse these new phenomena, assess their repercussion on public health and propose guidelines for adapting to the world's new forms of life and work. They are intended for institutions, professionals and society as a whole, and they serve to reinforce the second and third objectives of the Plan: to better identify the social care and health care needs of the immigrant population and improve the training of health care personnel in health management techniques for the immigrant population.

Also in 2008, three studies were conducted, with publication set for 2009: "Report on infectious diseases imported by immigrants residing in Spain who travel for a short time to their countries of origin," "Report on Chagas disease in Latin Americans residing in Spain," and "Report on basic strategies for addressing infectious diseases in immigrants, travellers and travelling immigrants."

At the international level, during the Portuguese Presidency of the European Union in 2007, Spain contributed in a direct manner to the priority theme "Migration and Health," and the Ministry of Health and Social Policy has continued to participate in all the European Union and international forums about health and immigration. In 2008 it participated in the following events:

7 Guide to Imported Infectious Diseases and the Report on Infectious Diseases imported by International Travellers to the Tropics.
http://www.msc.es/profesionales/saludPublica/prevPromocion/promocion/migracion/migracion.htm#viajeros

8 See Footnote 7.

- The AMAC Project (Assessing Migrants and Communities: Analysis of Social Determinants of Health and Health Inequalities); a project cofinanced by the European Commission's Directorate General for Health and Consumers and the International Organisation for Migration to assess the relationships and common features among various projects in the area of migration and health that are underway in the different member states. Publication of the results is set for September 2009 in Lisbon.
- The round table "The State, Religious Diversity and Health Care in Europe", organised by the Equal Rights Trust and held in London.
- The first conference of the European Scientific Network on Health, Migrants and Poverty. The Ministry of Health belongs to the network, the purpose of which is to act in an advisory capacity regarding European Commission policies in the areas of Immigration and Health, in support of the priorities set by the Portuguese EU Presidency. Following the Portuguese Presidency, the National Institute for Health, Migration and Poverty in Rome, Italy, called for the founding of the group, so as to be able to continue guiding the European agenda in this new phase.

Support for action taken by the autonomous communities

Throughout 2008, the proposal on criteria for fund distribution to the autonomous communities in support of health promotion and disease prevention programmes, especially in the area of emerging, re-emerging and especially relevant diseases and problems, made a priority of comprehensive projects designed to improve the health of the population, chiefly through interventions to reduce social inequalities in health. Of particular importance was the targeting of vulnerable groups and the most disadvantaged settings. The table below details the measures adopted by the autonomous communities and INGESA (the institute in charge of health services in Ceuta and Melilla) to diminish the health inequalities detected in the population.

Table 7.1. Measures adopted by the autonomous communities and Ceuta and Melilla to reduce inequalities in the population's health

	MEASURES
ANDALUCÍA	SOCIAL HEALTH CARE Intervention Plans in districts in need of social transformation Drafting of the Law on Social Inclusion Reinforcing the health services: personnel, financial incentives for professionals, among others Training and skill-building courses for disadvantaged groups in terms of socio-economic, cultural and health situation IMMIGRATION Recognition of the right to health care for migrants who are in an irregular situation Charter of Rights and Duties translated to various languages (English, Russian and Arabic) Written material in pictogram format and translated to other languages, for programmes on vaccination, prenatal care, childbirth, puerperium and family planning Guide to Providing Care to the Immigrant Population, intended for use by health professionals and which discusses different issues related not only to diseases and ill health but also to interculturality, as well as social, epidemiological and demographic issues Interpretation programmes broadened to all Health Centres, through the "Salud Responde" platform PROSTITUTION Plans for treating the health problems of people who work in prostitution MENTAL HEALTH Social insertion of mentally-ill patients – FAISEM Transversal planning in health policies Methadone treatment programmes Social participation projects in the form of Mutual Help Groups for Better Health Assistance for social participation projects targeting people affected by HIV/AIDS
ARAGÓN	Interdepartmental Commission on Female Genital Mutilation Comprehensive Plan on Intercultural Co-existence
BALEARES	SOCIAL HEALTH CARE Plan for Actions within the social health care sphere Framework Agreement between the Regional Ministries of Health and of Social Affairs Commission on Early Childhood Care (Regional Ministries of Health, Education and Social Affairs) IMMIGRATION Promotion of activities focused on improving health care for the immigrant population Telephone interpretation services (through the company DUALIA) for all public hospitals and also the private hospitals contracted by the Balearic Regional Health Service, with 72 sites where telephone interpretation takes place Promote mediation activities at the community level ACCESS TO CARE Improvements made in the Health Centres and basic health facilities offering primary care Progress for the construction of the new hospital complex in Eivissa Consolidation of the opening of hospitals in Inca, Menorca and Formentera Improvements made in the conditions of transport for health reasons between islands and between the archipelago and the peninsula, to be culminated in 2009
CANARIAS	DISABILITY Recognition of dependence and entitlement to benefits from the system to enhance autonomy and provide care for dependent people. Decree 54/2008, of 25 March 2008 Screening for hypoacusia in newborns Working group created and hypoacusia programme preparation begun IMMIGRATION Telephone interpretation system Health care protocol drawn up

	MEASURES
CANTABRIA	Cantabria Health Survey 2006 (National Health Survey conducted in Cantabria with larger sample) with focus on identification of health inequalities DISABILITY Application of the Law on Dependence, with assessment, care and subsequent reassessment of dependent people included in the benefits package Publication of guidebook on "Care for people who need care and those who care for them" IMMIGRATION Analysis of the social determinants of health and access to health services by the immigrant population in Cantabria
CASTILLA Y LEÓN	Integration of immigrant population Training health personnel in care provision for people of different cultures and origins, and in intercultural mediation Interpretation in all hospitals and in 20 Health Centres Publication of medical history and primary care treatment sheet in five languages Informative pictograms, with text in four languages, to aid in communication with gynaecologists and midwives ACCESS TO CARE Monthly study of number of incidents attended in over 30 minutes by emergency response services in rural areas, to determine the needs of the Basic Health Zones and draw up a plan for the introduction of new resources Creation of 581 routes of on-demand public transport Control of anti-clotting therapy in Health Centres: in 2008 anticoagulant therapy using reflectometers was introduced in 92% of the Basic Health Zones. In 2009, 100% introduction is expected DISABILITY Care for mental health patients Dual Pathology Unit now in operation in Santa Isabel de León Hospital Mini-residence now in operation in Zamora Integrated Process to provide social health care for people with mental health disorders Support programme for families of people with mental health disorders Promotion of social and occupational integration of mental health patients Regional Sectoral Plan on Caring for Disabled People II Social Health Care Plan of Castilla y León 2004-2007 Determine dental/oral health benefits in the Castilla y León Health System Protocol for dental/oral health care for the disabled
CASTILLA-LA MANCHA	ACCESS TO CARE Guarantee maximum response times, services, prices and reimbursement of travel expenses related to Specialised Care Presence of volunteers in health facilities Dental/oral health care for young people aged 6 to 15 years IMMIGRATION Social health care mediation, especially with regard to perinatal health and women's health (agreement with Doctors of the World organisation) Sociocultural care skill-building project, for health professionals and administrators Guidebooks on providing care to the immigrant population Translation of documents to various languages Creation of multi-lingual dictionaries Telephone interpretation services
CATALUÑA	DISABILITY Dental/oral health care for the disabled Programme to strengthen and regulate the promotion of personal autonomy ACCESS TO CARE Homogenisation of the average health conditions found in the various territories, through strategic planning of health resources in accordance with Health Plan 2006-2010 and the Catalonia Health Survey 2006, both of which furnish relevant information for policy decisions aimed at reducing the inequalities present in the small and isolated territories

	MEASURES
CATALUÑA	IMMIGRATION Steering Plan on immigration and health, aimed at improving the immigrant population's access to health services, through welcome plans, mediation and specific training for professionals, and also at better responding to their specific problems and to imported pathologies COMMUNITY CARE Health in your Neighbourhood Programme, aimed at the structural remodelling of services in neighbourhoods that are especially impoverished, with inhabitants who are at risk of exclusion Protocol for responding to child abuse Preparation of a protocol for responding to the abuse of elderly people Schools and Health Programme, by which open consultations with nurses from Health Centres are made available to students at secondary schools
EXTREMADURA	ACCESS TO CARE Increasing number of Basic Health Zones and thus of Health Centres, to ensure that everyone has a Health Centre within 15 minutes New hospitals now in operation, to ensure that everyone has a hospital within 30 minutes Urgent care and emergency response: 16 Mobile Units, 2 Aeromedical Emergency Units (located in Cáceres and Don Benito) Out-of-hours care at 128 Out-of-hours Care Sites NEW TECHNOLOGIES Progressive deployment in certain areas and introduction of telemedicine in hospitals and a total of 30 Health Centres IMMIGRATION Health care for foreigners SOCIAL HEALTH CARE Agreements with the anti-AIDS Committee of Extremadura for rapid HIV-testing outside of health care settings and for social and occupational integration of people with HIV-AIDS Lipodystrophy treatment for the seropositive population and protection for serodiscordant couples now included in the services of the health care system Agreements with non-governmental organisations and associations of patients and families Calls for grant applications in the following areas: programmes for intervention in drug dependence, as part of the Comprehensive Plan on Drugs, for the social and occupational integration of people with drug problems Call for applications for grants earmarked for local governments that have put in place community prevention programmes as part of the Comprehensive Plan on Drugs
GALICIA	DISABILITY Strategy within the Health Plan of Galicia IMMIGRATION AND ETHNIC GROUPS Collaboration with representatives of different ethnic groups Collaboration agreement for visits by children from the Sahara, Senegal and Russia
MADRID	DISABILITY Action Plan for Disabled People 2005-2008 Women and Disability Commission Dental/oral care for disabled children and adults Early detection of hypoacusia in newborns Improved access by disabled people in public sector health care facilities SOCIAL HEALTH CARE Plan for Supporting Families 2005-2008 Improve well-being and quality of life, especially among the neediest Increase social cohesion by promoting the family as a fundamental social institution that conveys the values of co-existence, solidarity, mutual respect and tolerance Foster intergenerational solidarity Fresh impetus for all social care activities that provide support to mothers and fathers Training and support for families through "Health Education at Schools" and "Health Education for Groups"

	MEASURES
MADRID	Plan against social exclusion 2002-2006 Introduction of a Health Care Document that enables people in situations of social exclusion to receive regular health care Mobile Unit for Intervention in Situations of Exclusion in the shantytown areas of Barranquillas and Cañada Real, to make health care services available to people who live in situations of extreme risk and inequality Programme for the psychiatric care of mentally-ill homeless people IMMIGRATION Integration Plan 2006-2008 Actions to inform immigrants about access to the health care system and how it works Putting in place informative actions on health promotion and disease prevention Increasing the training and knowledge of health professionals in topics related to immigration Unifying existing information about the health of the immigrant population
MURCIA	IMMIGRATION Plan for intervention and training in intercultural mediation in primary care Technical Report “The role of Intercultural Mediation in Primary Health Care” Training in intercultural mediation in primary health care DISABILITY Protocol for admissions and transfers of patients with mental illness
NAVARRA	IMMIGRATION AND ETHNIC GROUPS Publication and dissemination of materials in French, English, Arabic and Russian on the topics of: health care services, food and children, a healthy return to school Economic and technical support for different social entities working in the area of immigration Three-day training for medical and nursing professionals in Health Centres, titled “Health Care for the Immigrant Population” Specific area on the Navarra Institute of Occupational Health website “Immigrant Workers” Health Promotion Programme for the Roma community DISABILITY Oral/dental care for the physically and mentally disabled
PAÍS VASCO	IMMIGRATION Basque Plan on Immigration 2007-2009 Reinforced actions to inform the immigrant population about access to the Basque health care system and how it works Publication and dissemination of informative leaflet in several languages (Romanian, Portuguese, Chinese, Arabic, and others) Training of personnel in this subject Guides on providing primary care to immigrant adults and children available on the Basque Ministry of Health’s website Interpretation and mediation between doctors and immigrant patients, pilot project on telephone interpretation SOCIAL HEALTH CARE Study on the evolution of geographical, socio-economic and environmental inequalities in mortality, based on examination of small areas of the Basque Country Project for studying the evolution of social inequalities in health-related behaviour
LA RIOJA	DISABILITY Making the Living Will Registry accessible to disabled people Agreements with associations and help centres for people with illness and disability Agreements with charity organisations IMMIGRATION AND ETHNIC GROUPS Training community health agents from the Roma community Communication process aided by interpreters Practical guide to breastfeeding published in five languages

	MEASURES
LA RIOJA	ACCESS TO CARE Subsidies for local governments wishing to undertake projects to equip, maintain, build or make major repairs to medical consultation facilities Establish maximum waiting times and a health information system
CEUTA AND MELILLA	DISABILITY Social health care services, within the Framework Programme for Joint Actions by INGESA and INSERSO (National Institute of Social Services) signed in Melilla in January of 2007. Aimed at frail elderly people, people with severe, chronic mental illness or physical, mental or sensory disability, terminally-ill patients, people who are functionally dependent, people in situations of social exclusion with health care problems and informal caregivers Programme on care for frail elderly and dependent people, included in the benefits package of Primary and Specialised Care IMMIGRATION AND ETHNIC GROUPS Practical guide to breastfeeding Perinatal health leaflets Perinatal education through group talks, using computer and sound technology: all intended for the non-Spanish speaking population (50% of the births in these cities) in Tamazight, Arabic and French Health monitoring programmes in collaboration with short-term residential facilities for immigrants Basic protocol for detecting and controlling infectious diseases Special emphasis on control of tuberculosis through introduction of unified protocol in Ceuta and Melilla that has been documented, printed and disseminated to professionals ACCESS TO CARE Protocol for transfer of patients to health facilities in mainland Spain Improved access to health services through the adaptation of computer systems used for waiting lists for surgery, consultations and diagnostic tests

Notes: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

7.2 Gender and health

In recent years a number of provisions have been adopted at the European, Spanish and regional levels to legally establish the equal status of men and women. Some examples are the European Directives that promote equal treatment as regards vocational training, employment and promotion and equal access to goods and services (2002/73/EC; 2004/112/EC) and also the Spanish Law on the Effective Equality of Men and Women (Ley Orgánica 3/2007, de 22 de marzo[9]). This legislative framework must be kept in mind while reflecting on the data and figures discussed throughout this chapter and it should be taken as the driving force which will allow equality and parity to be reached in health related services.

9 Official State Gazette: Organic Law 3/2007, of 22 March 2007.
http://www.boe.es/aeboe/consultas/bases_datos/doc.php?coleccion=iberlex&id=2007/06115

Recommendation CM/Rec (2008) 1 of the Committee of Ministers[10] to member states on the inclusion of gender differences in health policy, adopted by the Committee of Ministers of the Council of Europe on 30 January 2008, recognises the increasing evidence in all fields of health research (concerning both biomedical and psycho-social mechanisms) that risk factors, clinical manifestation, causes, consequences and treatment of disease may differ between men and women, and in such cases, prevention, treatment, rehabilitation, health care delivery and health promotion need to be adapted according to women's and men's differing needs.

The recommendation also notes that gender differences can result in problems of access to health services and that the lack of resources to promote gender sensitivity in health care providers may constitute structural barriers to the quality of health care. It recommends that the governments of member states, in the context of protection of human rights, make gender one of the priority areas of action in health, through policies and strategies that address the specific health needs of men and women and incorporate the gender perspective. It urges member states to develop and disseminate gender-sensitive knowledge that allows evidence-based interventions through systematic collection of appropriate sex-disaggregated data and the promotion of relevant research studies.

On this matter, in Spanish legislation, the aforementioned Law 3/2007, of 22 March 2007, on the Effective Equality of Men and Women contemplates in several of its articles the themes of education, research and health. Thus, it establishes guidelines for integrating the principle of equal opportunities in educational and health policies. It provides that the public administrations, through the Regional Health Services or other appropriate bodies, must promote scientific research that takes into account differences between men and women as regards health protection, especially in access to health services, diagnostic and therapeutic efforts, clinical trials and care activities. Also, it underlines the need to integrate the principle of equality in the training of the personnel of health organisations and to carry out actions that pursue balanced participation of women and men in upper-level management and positions of responsibility throughout the SNS. In addition to all of this, it is important to obtain and process sex-disaggregated data from the registries, surveys, statistics and other medical and health information systems, as provided for in Art. 27 of the said Law.

In Spain considerable evidence exists on the relationship between social inequalities and health outcomes, but there is little information on how to

10 COE: Recommendation CM/Rec (2008) 1 of the Committee of Ministers. http://www.coe.int/t/e/human_rights/equality/Rec_2008_1_Spanish.pdf

address the situation from within the health care system. To formulate and evaluate policies aimed at achieving health equity, first of all, the information systems used must allow all the social characteristics of the persons attended to be known, such as socio-economic level or social class, and others that incorporate other dimensions: nationality, religious beliefs, sex, sexual orientation, age and place of residence. Such characteristics are related to each other but are different and they operate in distinct ways in each population.

Therefore, describing and researching sex differences and gender inequalities in health means taking into account both men and women and, whenever possible, performing separate analyses for each sex, so as to better understand the nature of gender as one axis of inequality and as a multidimensional concept. Gender equity in health requires that men and women be treated equally when they have the same needs, and that their differences be addressed in a differentiated manner in all the processes and levels, from policy planning through service provision.

Health strategies and the gender perspective

One of the main priorities of the Quality Plan for the SNS in terms of promoting equity is to increase awareness of gender inequality in health among health care personnel and to strengthen gender sensitivity in health policies. In this regard, the Women's Health Observatory of the Quality Agency of the SNS, has collaborated throughout 2008 by participating in the Institutional Committee and in the Committee for the Monitoring and Evaluation of the SNS Strategies approved by the Interterritorial Council (on cancer, ischaemic heart disease, diabetes, palliative care, mental health, attending normal births, stroke, COPD and rare diseases), in order to formulate, within each line of strategy, objectives and recommendations that will help reduce health inequalities, wherever gender relations take the form of inequality and therefore lead to inequities in the access to and use of health care services (Quality Plan. Strategy 4. Objective 4.1).

Gender violence

A major step taken towards equality and the eradication of gender violence is the publication of the ***National Plan for Gender Violence Awareness and Prevention***, which highlights the primary role to be played by the public administrations. Its priority objectives include training on the subject of gender violence for health care professionals, based on common quality criteria, and the design and production of evaluation indicators with which to assess such training.

In 2008, following the publication of the SNS Common Protocol for actions by the health sector in response to gender violence (2007), the

Commission against Gender Violence of the SNS Interterritorial Council worked on the design and preparation of fact sheets on the approved common indicators which will make it possible to obtain information about the health care sector's response to this serious public health problem. Efforts were also made to define the common basic educational contents that health professional training in this area must have. To ensure that this information came to the attention of relevant parties, informative leaflets were published on the common indicators and the quality criteria with which to evaluate training activities.

The Ministry of Health also signed 13 agreements with autonomous communities and INGESA to promote activities related to the introduction of the Common Protocol for action by the health sector in response to gender violence. In addition, the 2007 Annual Report was drawn up on the health care response to gender violence in the SNS. All of the health care actions in the area of gender violence undertaken in the SNS as a whole are co-ordinated by the aforementioned Commission against Gender Violence. External co-ordination with the other public administrations involved, represented and organised for intersectoral projects, is the task of the State Observatory on Violence against Women, which depends on the Government Department on Gender Violence (Ministry of Equality).

Representatives of the Ministry of Health attended the International Symposium on violence as a cause of illness, organised by the German Ministry of Health and the German Medical Association, in collaboration with the WHO Regional Office for Europe. Spain made a presentation about the Spanish experience in health care organisation and response to gender violence.

Finally, the measures adopted by the autonomous communities and INGESA to fight gender violence are listed in Table 7.2.

Table 7.2. Action and progress in introducing protocols against gender violence in 2008

	ACTIONS PERFORMED
Andalucía	New model for communication with the judicial system, to be used by everyone for injuries of any origin Publication of a protocol for action in response to gender violence, adapted from the one approved by the SNS Interterritorial Council Creation of a specific Protocol for action on gender violence in community Mental Health Facilities Design of courses and materials with which to train professionals through the Training Network to Combat Violence against Women
Aragón	Monitoring of Protocol for interinstitutional co-ordination to prevent gender violence and assist victims Monitoring of the Comprehensive Plan to prevent and eradicate domestic violence Training in gender violence prevention and detection in the health care sector Monitoring use of the Guide on the health care response to victims of domestic violence
Asturias	Monitoring of Protocol to improve care provided to victims of gender violence Use of VIMPA Registry (health care in cases of violence against women in Asturias)
Baleares	Publication of Action Guide on health sector response to gender violence Preparation of a Protocol on interinstitutional co-ordination in the health sector response to gender violence
Canarias	Early stages of design of the Programme for Equality and Equity
Cantabria	Monitoring of Protocol for health sector response to domestic violence
Castilla y León	Monitoring of II Plan against Gender Violence (2007-2011) Monitoring of Services for Victims of Gender Violence
Castilla-La Mancha	Monitoring of the Plan for intervention in and prevention of gender violence: psychosocial and legal assistance Monitoring of the Vitrubio Programme, which offers psychological assistance to men who have engaged in domestic violence
Cataluña	Approval of Plan on policies regarding women 2008-2011, which includes comprehensive intervention against sexist violence
Extremadura	Implementation of Interdepartmental Protocol for the Eradication and Prevention of Violence against Women Programme to increase sensitivity and training regarding the contents of the Protocol on the health sector response to gender violence, intended for health professionals Monitoring of the Permanent Commission for the Eradication and Prevention of Violence against Women Monitoring of the Pilar Project (network providing psychological assistance in emergency situations)
Galicia	Project to improve care provision in cases of gender violence Introduction of Technical Guide on the health sector response to gender violence

	ACTIONS PERFORMED
Madrid	Monitoring of Comprehensive Action Plan against Gender Violence 2005-2008 Creation of a website on gender violence and publication of documents and actions guides for health care professionals Monitoring of the Plan for ongoing training in gender violence intervention Publication of a brief guide on primary care response to domestic violence against women Publication of the guide to action in specialised care. Monitoring of the Programme ATIENDE for women affected by gender violence and their children Transversal population study to ascertain the prevalence of domestic violence against women and the health problems arising from this situation Creation of information systems that allow for primary care data exploitation and the establishment of the circuits necessary to respond to the information needs of the Technical Commission on Gender Violence
Murcia	Monitoring of Protocol for the detection of and response to gender violence at the primary care level, begun in 2007 Monitoring of the Comprehensive Plan for training in gender violence intervention Increased awareness and training among all health and non-health professionals of the Regional Health Service Training of people who will later provide training in gender violence at the primary care level
Navarra	Monitoring of Protocol for actions in response to gender violence, with training in prevention, early detection and how to address domestic violence at the primary care level Monitoring of the Commission to oversee the interinstitutional agreement for comprehensive care for victims of domestic violence Creation of a comprehensive registry for all gender violence files so that the various bodies and administrations involved in the response can have access to the complete information
País Vasco	Approval of the Women and Health Programme, which includes detection and intervention from within health care services to reduce impact of gender violence on health
Rioja	Monitoring of III Comprehensive Plan against Gender Violence 2006-2009 Training programmes on ethical and legal aspects, prevention, early detection and how to address domestic violence Monitoring of how the problem of domestic violence is detected and addressed in Health Centres
Ceuta and Melilla	Introduction of SNS Protocol on Gender Violence adopted in 2007 by the Ministry of Health, ACs and the Special Delegation for Gender Violence and the Women's Institute Monitoring of the Protocol on health sector response to gender violence

Notes: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

Instruments to identify and disseminate best practices

In 2008 instruments were developed to identify and help disseminate best practices, as part of the effort to mainstream gender issues in health system

policies and structures and to include the gender perspective in basic actions. The most significant developments are the following:

- The design of a standard model for the collection of data about the best gender-sensitive practices in the SNS, which has allowed some of these experiences to be identified and disseminated through the 5th Forum on Women, Health and Gender that took place in Madrid. The central theme of the Forum in 2008 was gender mainstreaming in health policies.
- The preparation, publication and dissemination of a guidebook on the inclusion of the gender perspective in health programmes (Guía de Recomendaciones para la inclusión del enfoque de género en programas de salud)[11] and also a book on gender determinants in health (using both a theoretical and a practical framework).
- Translation into Spanish of the Gender Tool of the "European Strategy for Child and Adolescent Health Development" put in place by the WHO.

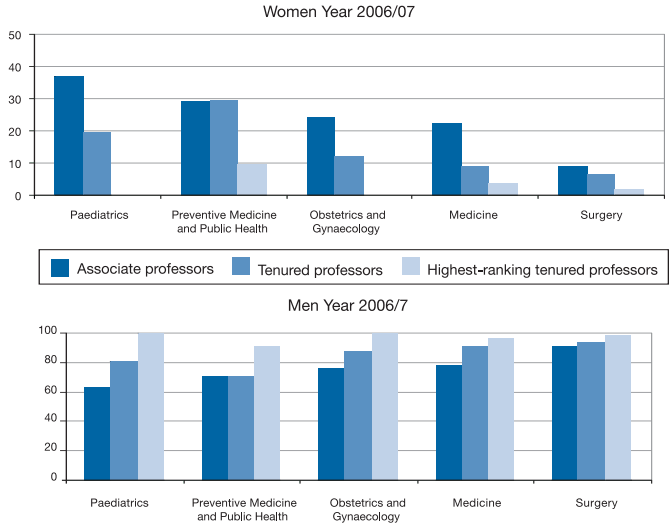
The Gender and Health Report 2007-2008. The health care professions

The third edition of the Report prepared by the Women's Health Observatory analysed the factors related to men's and women's access to careers in the health care sector. A direct relationship has been found to exist between differential gender socialisation and gender biases that influence how men's and women's careers are regarded, as evidenced by the reduced presence of female values in the organisation and upper management of health care activity, a cloaked social tendency to undervalue the professions practiced mostly by women, and a symbolic domination of the masculine in all affected sectors: training, research, care, management and communication in the health care system.

With regard to training, there is a majority of female students in the universities and also in the health science specialities. But women's jobs tend to be of a lower rank than those of men, even in the professions with greater female presence, such as nursing. It is important to note the absence of women among the highest-ranking professors in Paediatrics or Gynaecology and Obstetrics (Figure 7.1). Also, their presence in University administration and representation bodies is still scant and limited to mid-level posts.

11 Guide with Recommendations for the inclusion of the gender perspective in health programmes. http://www.msc.es/organizacion/sns/planCalidadSNS/recomendVelasco2008.htm

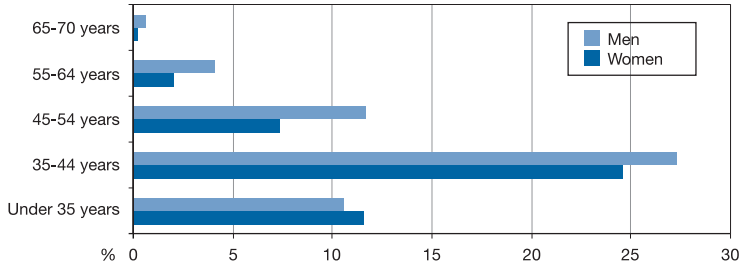
Figure 7.1. Percentage distribution of men and women by professional category in some health specialities



Source: National Statistics Institute. Statistical Report on University Teaching in Spain

The unequal presence of women in teaching positions is also found in the sphere of ***research***, where women occupy more of the lower-ranking posts. Women appear less frequently as the main researchers in research projects seeking funding (Figure 7.2 and Figure 7.3). They also have less presence than men do in specialised journals as authors or members of editorial or review boards (Figure 7.4).

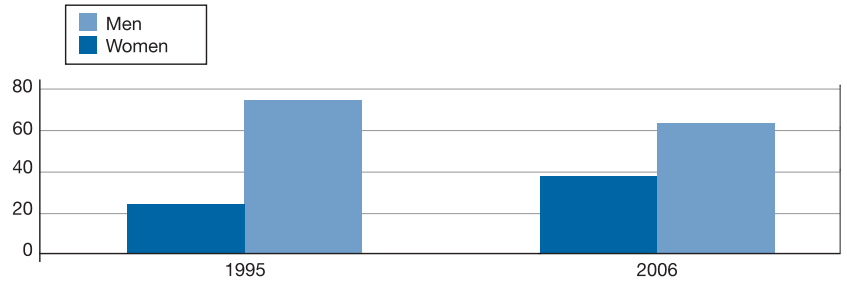
Figure 7.2. Percentage distribution of research personnel by age group and sex. 2006



Age	% Men	% Women	% Total	Diference by sex
Under 35 years	10,62	11,6	22,22	0,98
35-44 years	27,29	24,56	51,85	-2,73
45-54 years	11,64	7,36	74,07	-4,28
55-64 years	4,09	1,98	6,07	-2,11
65-70 years	0,59	0,27	0,86	-0,32
Total	54,23	45,77	100	-8,46

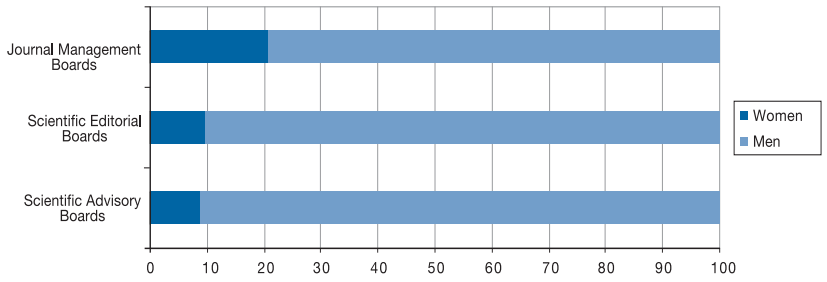
Source: National Statistics Institute, 2006

Figure 7.3. Percentage of HRF projects funded, by sex of main researcher. 1995 and 2006



Source: Schiaffino et al., 2001 and HRF (Health Research Fund); Carlos III Health Institute, 2006

Figure 7.4. Distribution of the scientific and editorial boards of Spanish health science journals, by sex. 2007



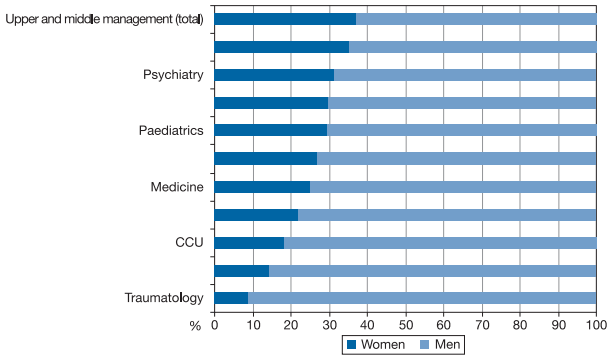
Source Miqueo, C; Barral, María José; Fernández-Turrado, Teresa; Germán, C. The incorporation of women in the management boards of scientific journals. In: 10th International Interdisciplinary Congress on Women. Women's Worlds 08. Madrid, 3-9 July 2008 .

The situation in the ***health care system*** is similar to the one found in universities, with a high concentration of women in the less respected positions and their absence from the most highly esteemed positions and specialities. There is also less presence of women in upper management and positions of responsibility. Figure 7.5 shows, by specialty, a first group that displays a clear predominance of men in the profession. In this group women are less than 40% of the population. This set of specialties includes: Medicine,[12] Surgery, Trauma, Obstetrics-Gynaecology, Paediatrics, Psychiatry, and also Central Services, the Critical Care Unit, Urgent Care or on-call doctors, and Upper and Middle Management positions that require undergraduate degrees in

12 According to the definitions set forth in the Statistical Report on Inpatient Medical Facilities Available at:
http://www.msc.es/estadEstudios/estadisticas/estadisticas/microdatos/frmListadoMicrodatos.jsp. This refers to doctors who provided services in the facilities, regardless of their position (head of service, section, etc.) as of 31 December. Interns, residents, scholarship holders and voluntary doctors were not counted. They are grouped by main type of care activity: Internal Medicine and other medical specialties, General Surgery and Specialised Surgery, specialisation in Orthopaedics and Trauma, Obstetrics and Gynaecology, Paediatrics, Psychiatry, Doctors in Central Services (Laboratory, Radiodiagnostics, Anatomical Pathology, Anaesthesia, Pharmacy, etc.), specialists in Intensive Medicine, Rehabilitation and the doctors who work exclusively on-call shifts and/or Urgent Care.

study programmes lasting five years.[13] With the exception of Medicine, these are specialities with relatively few people employed, between 1500 and 10,000 people, the majority of whom are men. It should be noted that one of the most important figures is found in Upper and Middle Management, where 26% of the positions are occupied by women.

Figure 7.5. Distribution of health care personnel working in health care facilities (with less than 40% female representation)



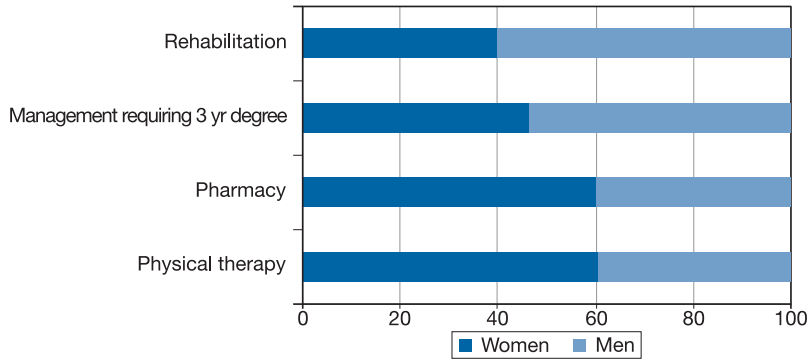
Source: Ministry of Health and Social Policy. Statistical Study on Inpatient Health Care Facilities, 1996-2006[14]

Figure 7.6 indicates the areas of specialisation in which the representation of women is between 40% and 60% and can thus be said to show more parity. This group does not have many specialities in it but it can be clearly distinguished from the preceding one because they are specialties largely associated with women. The exception is middle management positions requiring degrees from three year undergraduate programmes, 46% of which are occupied by women.

13 According to the definitions used in the Statistical Report on Inpatient Medical Facilities Available at: http://www.msc.es/estadEstudios/estadisticas/estadisticas/microdatos/frmListadoMicrodatos.jsp, other positions requiring an undergraduate degree from a 5 year programme (with health care function) are: physicists, biologists, chemists, etc (not including doctors and pharmacists working in the pharmacy service) who work at the facility as of 31 December and who perform health care functions: laboratories, etc. The degree holders who are in residency, are scholarship holders or are voluntary doctors are not counted, nor are those in administration, equipment maintenance, etc

14 The percentages are calculated using the population whose working hours total more than 36 hours

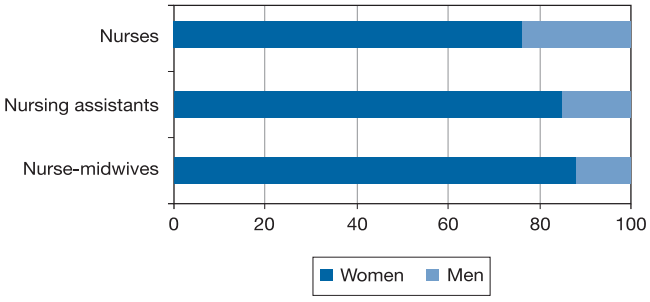
Figure 7.6. Distribution of health care personnel working in health care facilities (with between 40% and 60% female representation)



Source: Ministry of Health and Social Policy. Statistical Study on Inpatient Health Care Facilities, 1996-2006

Finally, as shown in Figure 7.7, there are few professions in which women hold more than 60% of the positions, but together they constitute the majority of persons providing health care at hospitals. With the exception of nurse-midwives, all of these specialties represent more than 50,000 jobs, with nursing assistants being especially numerous. These jobs are "feminised" not only at the levels of training and work but also in the collective subconscious, as indicated by the fact that in some languages, including Spanish, the word commonly used for the profession is feminine.

Figure 7.7. Distribution of health care personnel working in health care facilities (with more than 60% female representation)

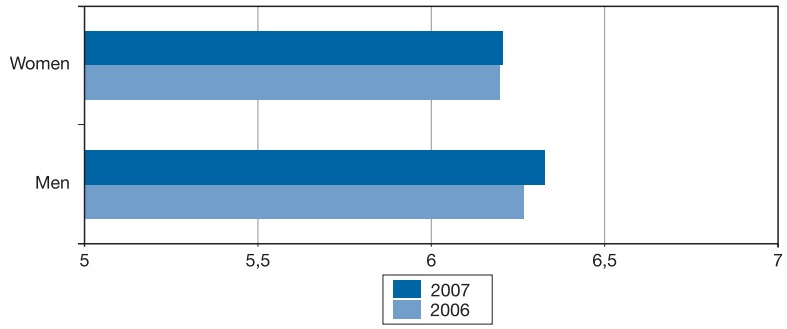


Source: Ministry of Health and Social Policy. Statistical Study on Inpatient Health Care Facilities, 1996-2006

This situation responds, in part, to a series of stereotypes that promote the idea that women are more suited to some areas of specialisation and jobs, or that women are not able to occupy a position with a high level of professional responsibility due to family obligations. The media often reinforce these unfounded stereotypes, which makes it even more difficult to overcome them.

Lastly, there is evidence of differentiated attention on the part of female and male medical personnel, with regard to ailments and diagnostic tests, communication styles, time dedicated and information offered, etc. All of this leads the population using the service to develop preferences in the choice of the professional, depending on that person's sex. In addition, there is evidence of different therapeutic efforts being made by both male and female professionals when treating the same diseases in men and women. As a result, some research and indicators suggest that female users and male users express different levels of satisfaction.

Figure 7.8. Level of satisfaction with the functioning of the health care system, 2006-2007



Source: Ministry of Health and Social Policy and Sociological Research Centre. Health Care Barometer, 2007

Women's Health

Another action called for in the Quality Plan for the SNS is to analyse, in collaboration with patient associations and professional societies, the scientific knowledge and clinical experiences related to the health problems that affect mainly women and that have a significant impact on their quality of life. In this respect, it should be highlighted that in 2008 the Women's Health Observatory organised a workshop with scientific societies and experts in endometriosis, along with associations of women affected by this pathology, where participants agreed on the priorities for addressing this illness from within the SNS. The

Ministry of Health and Social Policy also took part in the International Symposium on Endometriosis organised by the German Ministry of Health, in collaboration with the WHO Regional Office for Europe.

Some of the measures adopted by the autonomous communities and INGESA to promote equity in gender and health are listed in Table 7.3.

Table 7.3. Measures adopted by the ACs and Ceuta and Melilla in relation to gender and health

	MEASURES
Andalucía	Treating the health problems of people who work in prostitution
Aragon	Interdepartmental Commission on Female Genital Mutilation
Baleares	Monitoring of Commission on Gender and Health Dispensing of medicines for postcoital interception at health care facilities Publication of the Emergency Contraception Guide
Cantabria	Evaluation of I Action Plan: Women's Health 2004-2007 and introduction of II Plan 2008-2011 Inclusion of the gender perspective in all Public Health plans and programmes
Castilla y León	Incorporation of gender perspective in III Health Plan and in sectoral plans
Castilla-La Mancha	Incorporation of social health mediation in immigrant population, especially with regard to perinatal health and women's health (agreement with Doctors of the World organisation)
Cataluña	Completing the mainstreaming of the gender perspective in all health policies Creation of the Plan on policies concerning women (Government Accord 136/2008)
Extremadura	Monitoring of III Plan on achieving equal opportunities for the women of Extremadura 2006-2009 Incorporating and strengthening the gender perspective in care processes
Galicia	Raising awareness and ongoing training for health care personnel Introduction of Protocol for health care actions Specific workshops for improving care provided to immigrant women
Madrid	Monitoring of the Programme for the Promotion of Women's Health Monitoring of Programme for Health in Children and Youth
Navarra	Group activities for immigrant women on the subject of sexuality and family planning
País Vasco	Approval of the Women and Health Programme, which includes analysis of gender sensitivity of plans, programmes and protocols and measures designed to incorporate the gender perspective in health care actions Study on the role of gender inequality and social class in the incidence, mortality, survival and patient care provided in cases of acute myocardial infarction
Rioja	Development of programme to better respond to women's needs, by means of a telephone service Creation of a Well Woman Unit
Ceuta and Melilla	Monitoring of Strategy for Attending Normal Births, of the Ministry of Health, and of the WHO Recommendations on humanised birth Development of projects to improve the quality of health care provided to women: Programme to Promote Breastfeeding Study on Prevalence of Breastfeeding in Melilla

Notes: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

To promote the training of health care professionals and ensure that gender inequalities are addressed in ongoing training efforts, the Ministry of Health and Social Policy, in collaboration with the autonomous communities, the Women's Health Observatory and the Carlos III Health Institute, has taught the following courses at the Escuela Nacional de Sanidad (the national school of public health):

- Third edition of a course on Public Health and Gender, with the participation of personnel from the autonomous communities and Equal Opportunity Agents (people who have completed a programme on ensuring equal treatment for men and women), in collaboration with the Women's Institute.
- Third edition of the course Qualitative Research and the Gender Perspective in Health, in collaboration with the Women's Institute.
- Fourth edition of the training course for people who will later train others in preventing and responding to gender violence.
- Fourth edition of the course on preventing and responding to gender violence, for mental health teams.
- Third edition of the course on the Gender Perspective in Health and in the SNS, for personnel of this Ministry, in collaboration with the Equality Section of the Office of Human Resources.

It has also collaborated with the Latin American Faculty of Social Sciences and the UNESCO Chair on Women, Science and Technology, teaching on-line courses about the integration of the gender perspective in health. In addition, it has collaborated with the Alcalá de Henares University in Madrid, in the masters course on gender violence, intended for health professionals.

Attending normal births

The Women's Health Observatory has also been working on the review of scientific evidence, existing research, innovative experiences, best practice models and the WHO recommendations. This work is carried out in conjunction with professional societies, social and women's organisations and the technical professionals responsible for this area in the regional health care administrations. The work has brought to light the fact that although childbirth care in the SNS complies with safety and quality criteria similar to those found in nearby European countries, the aspects of warmth, maternal participation and women as the protagonists of the birthing process have produced a generalised sense that improvements need to be made.

The Strategy for Attending Normal Births[15]. a consensus document prepared and presented at the Interterritorial Council in 2007, has been in place since 2008 and is a point of reference for the country as a whole.

The objective behind this Strategy is to bolster the process for attending normal births within the SNS, improving the quality and warmth of the patient care provided, eliminating the routine practices that are unnecessary or harmful in the light of scientific evidence, and maintaining current levels of safety. The recommendations made to help achieve such goals are grouped into four lines of strategy: clinical practices based on the best scientific knowledge available; the participation of mothers in the decision-making process; professional training; research, innovation and dissemination of best practices. To evaluate these factors, the Strategy points out specific and viable indicators that can be obtained through existing information systems (Minimum Basic Data Set), which facilitate the monitoring of outcomes (morbidity-mortality) and of some obstetrical practices (episiotomies, caesarean sections). It also proposes process indicators by which to monitor Strategy introduction, such as the registration of how many maternity hospitals include each of the Strategy's recommendations in their childbirth protocol.

The autonomous communities participate through the Institutional Committee, while professional societies and social and women's organisations participate through the Technical Committee. The introduction and development of the strategy is monitored by means of on-line communication and regular meetings of these committees. Leadership and co-ordination are the task of the Women's Health Observatory and in 2008 a budget of €8 million was allocated to fund autonomous community projects on gender-sensitive perinatal health and more humanised childbirth care. Aspects of the projects include:

- Incorporating the gender perspective into care processes related to pregnancy, childbirth and puerperium.
- Providing better information and training on the subject of motherhood and fatherhood
- Evidence-based clinical practices during childbirth
- Promotion of emotional bonding and breastfeeding
- Specific training for health care professionals
- Research and innovation

In 2008 the Ministry of Health and Social Policy also held a Follow-up Conference on the Strategy for Attending Normal Births, which revealed that there is considerable interest in this subject and a demand for venues

15 Estrategia de Atención al Parto Normal
http://www.msc.es/organizacion/sns/planCalidadSNS/e02_t04.htm

and forums in which to share experiences and best practices. The conclusions and recommendations made at the conference point to the need to do the following:

- Make the EAPN better known to women, the general population and health professionals in particular.
- Increase support given by the health care administrations to EAPN implementation and continue with the training of professionals, a key factor in progress.
- Promote transparency, developing the indicators mentioned in the Strategy and agreeing on a registry system that will allow for evaluation of the Strategy.
- Prepare support materials on the topics of greatest interest, for professionals and for the general public.

Table 7.4 below lists some of the measures adopted in 2008 by the autonomous communities and INGESA to aid in the implementation of plans and programmes related to care for women and protocols used in normal births.

Table 7.4. Actions and progress in implementing plans and programmes related to care for women and attending normal births

	ACTIONS PERFORMED
Aragón	Development of SNS Strategy through training activities, training visits to hospitals with best practices and purchase of equipment to ease delivery and facilitate the movement of women during dilation
Baleares	Development of a comprehensive programme aimed at preventing unwanted pregnancies and a comprehensive women's programme, in collaboration with the Regional Health Service, the regional Department of Youth Services, the Women's Institute of Baleares and the General Office of Immigration
Cantabria	Evaluation of the Strategy for Attending Normal Births
Castilla-La Mancha	Implementation of the Clinical Path for Attending Normal Births
Castilla y León	Implementation of Programme to Promote Breastfeeding
Cataluña	Introduction of the Strategy for Attending Normal Births in the SNS, within the framework of the Strategic Plan in relation to maternal and child care and to sexual and reproductive health
Extremadura	Introduction of the SNS Strategy for Attending Normal Births Health Education Programme for pregnant women, postpartum women and nursing mothers, at Health Centres Preventive actions for pregnant women through the Dental Plan of Extremadura
Galicia	Monitoring of Comprehensive Plan on Women's Health started in 2007 and the Attending Normal Births Plan
Murcia	Introduction of Project on Attending Normal Births
Navarra	Information about the Strategy and training in breastfeeding for the first six months of life, for all relevant personnel, medical residents and obstetrical-gynaecological nurses Promotion of best practices in relation to care provided during childbirth and gathering of data from different hospitals
País Vasco	Promotion of breastfeeding among women who have given birth in a hospital. The hospitals have audiovisual material in various languages to be used while women are in the hospital
Rioja	Monitoring of the Dental/Oral Health Programme for Pregnant Women
Ceuta	Monitoring of the Programme for Mother and Baby Care, as part of the SNS Strategy on Perinatal Health and Gender

Notes: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

Lastly, a great effort is currently going towards the preparation of a training programme for professionals (nurse-midwives, obstetricians and paediatricians) from all the autonomous communities. Its purpose is to train the people who will later train others in their respective regions, providing all the necessary materials and thus enhancing effectiveness. Another objective is to establish the care quality indicators that will make it possible to identify best practices and study the evolution of the processes used in attending births in SNS maternity wards.

8 Clinical information management in the SNS

8.1 Electronic Health Records

The point of departure in 2008 was the functional design content (as defined in the Structural Requirements Analysis document[1] prepared by the organisational team of the EHR-SNS project) and also the standardisation of clinical notes resulting from the two preceding years of work (as defined in the Clinical Note Minimum Basic Data Set document[2]). Work was carried out with the participation and consensus of all the agents involved in developing the system for the EHR-SNS project:

- Health care authorities from the autonomous communities and the Regional Health Services, as the bodies in charge of service provision, resource management and the processing of the clinical information from health care facilities.
- Citizens, users and patients, as the final beneficiaries of the information available, as the holders of rights in relation to their clinical information and also because they will be the users of a series of functionalities intended for them.
- Professional groups from different functional areas and services, from all care levels.
- The Ministry of Health and Social Policy, as the body responsible for health service co-ordination and for guaranteeing the individual rights of citizens throughout the country, in conditions of equity.

At its meeting on 10 October 2007 the Interterritorial Council of the SNS resolved that a pilot test would be performed of the EHR-SNS system, prior to its introduction throughout the country. Thus in 2008 all efforts were focused on this central theme, for which it was necessary to move forward simultaneously in both test design and in the tasks aimed at achieving EHR-SNS interoperability.

To make progress in this direction, new working groups were created. Their task was to come up with different technical and semantic proposals which, while aiming at interoperability among existing electronic health record systems and obtaining specific results in the short and medium term,

1 http://www.msc.es/organizacion/sns/planCalidadSNS/docs/ARS.pdf

2 http://www.msc.es/organizacion/sns/planCalidadSNS/docs/CMDIC.pdf

would at the same time pursue the objective of full interoperability among systems of this type in the longer term.

These new working groups were the following:

- Working group on standards and technical requirements
- Advisory group on semantic interoperability in the EHR-SNS project
- Group of autonomous communities involved in EHR-SNS pilot testing

The working group on standards and technical requirements was comprised of experts with a technology background from each autonomous community. It reviewed the technical design of the EHR-SNS system, as formulated by the Ministry of Health and Social Policy, and established by consensus a standards policy[3] to be used by the SNS in coming years, which was laid down in the corresponding document.

The group also prepared a Technical Proposal[4] that describes in a general fashion the phases, and the associated procedures, needed to enable pilot testing, i.e. the exchange of sets of clinical data as defined within the project in the Structural Requirements Analysis document and the Clinical Note Minimum Basic Data Set document, using the architecture of web services already introduced in the SNS data exchange centre.

Advisory group on semantic interoperability in the EHR-SNS. Its aim is to make recommendations regarding action in this field and to solve the problem of semantic interoperability in the SNS, including a framework that can cope with linguistic diversity, initially prioritising the solutions needed to ensure interoperability in Patient Summary exchange. Its members, designated by the Ministry of Health and Social Policy, are technical experts from the SNS with experience in this particular field and Spain's co-official languages are represented. On this matter, the group drew up a Roadmap to Semantic Interoperability[5] in which the most important goals were identified, prioritised and put in chronological order. Execution of the roadmap began during 2008.

Following a situation analysis regarding the use of clinical terminologies, in the contexts of Spain itself and Spain's most immediate surroundings, Europe, and the international context in general, and also bearing in mind the semantic necessities of the SNS, the group issued a recommendation to the effect that SNOMED Clinical Terms® be used in the Patient Summary for variables without standardisation.

3 http://www.msc.es/organizacion/sns/planCalidadSNS/docs/POL_EST.pdf

4 http://www.msc.es/organizacion/sns/planCalidadSNS/docs/PT.pdf

5 http://www.msps.es/organizacion/sns/planCalidadSNS/docs/HRIS.pdf]

Given the far-reaching implications of this recommendation, it was submitted to the governing bodies of the Spanish health care system for consideration. The recommendation was approved and Spain, through its Ministry of Health and Social Policy, began the process of formally joining the group of countries that make up the International Health Terminology Standards Development Organisation (IHTSDO). Spain, as a full member, will be able to distribute, within the country, the SNOMED CT Core for its use in clinical and research spheres. In parallel, work began on the design of the strategy and work methodology to be followed in the development of a Spanish edition of SNOMED CT, one that is closer to the clinical terminology used by SNS professionals than the Argentinean version that currently comprises the SNOMED CT Core, along with its original version in English.

Group of autonomous communities involved in EHR-SNS pilot testing. Comprised of the 10 autonomous communities that decided to participate actively in the pilot testing of this system in real scenarios. The remaining autonomous communities, the ones that have opted to act as observers of the pilot testing process, can access up-to-date information on the progress and results of the work being done, through the work tool used in project development.

Two stages were defined to allow for phased-in incorporation of the autonomous communities in the pilot study (phase I and phase II of the pilot test), the only difference between the two being the moment at which the exchange of real information would begin. Each participating autonomous community chose the phase that was best suited to it with respect to its capacity to meet the minimum requirements established for the pilot test.

Eight communities chose to join Phase I: Andalucia, Baleares, Cantabria, Castilla y León, Cataluña, Rioja, Murcia and Valencia. The communities of Castilla-La Mancha and Extremadura decided to join the pilot test in Phase II.

Through this group, the generic scenario that the project directors proposed for use in the study (the functional and territorial scope) was analysed, along with the technical requirements, study design, the computer application developed and furnished by the Ministry of Health and Social Policy, the test runs that would be performed prior to the exchange of real information and the system for evaluating results.

Also in 2008, the 1st EHR-SNS Forum took place at the Ministry, on 2-3 December.

The purpose of the event was to present the state of the situation with respect to the various Electronic Health Records systems currently in development, both inside the SNS and in other countries, thus giving an overall vision of how the elements that contribute directly to appropriate and efficient EHR system development have evolved over time. These elements

range from those directly related to contents, such as the standardisation of clinical information, those more related to system design, such as the identification of the needs of potential users, through strictly technical elements, such as standards and data security policies.

During the two days of work, the following issues were addressed:

- The need for technical standardisation
- Data security
- The role of semantic standardisation
- Citizen participation
- Experiences in the development of EHR in some autonomous communities
- Design of the EHR-SNS project
- The future of cross-border interoperability in Europe

The issues were addressed by means of different round tables in which a number of experts in each of the subjects participated, presenting specific experiences whenever possible.

Each round table also had time allocated for open debate among Forum attendants, which allowed for expanded discussion of the various topics.

8.2 The epSOS Project

The project called epSOS (European Patients - Smart Open Services) is part of the European eHealth 2010 initiative and it is one of the projects currently funded by the European Commission in an effort to develop cross-border interoperability in eHealth systems. The purpose of the project is to determine, through the experience gained from conducting a Large Scale Pilot, the most suitable methods and means to enable secure access to a patient's most relevant clinical information by European health professionals who provide health care to Europeans in a country other than their country of residence.

The Pilot focuses on two services:

- Patient summaries with essential health data
- Electronic prescription

These two services contain information of great usefulness in urgent or unplanned care, which will make it possible to solve most of the problems that arise when patients require health care outside of their country of residence.

Twelve member states are participating in the large scale pilot: Austria, Czech Republic, Denmark, France, Germany, Greece, Holland, Italy, Slovakia, Spain, Sweden and the United Kingdom. Each member state participates through organisations named by it (beneficiaries). A total of 27 beneficiaries represent the 12 participating countries. In the case of Spain,

the beneficiaries are the Ministry of Health and Social Policy and three autonomous communities (Andalucía, Cataluña and Castilla-La Mancha). It is expected that Spain will contribute pilot test scenarios in each of the autonomous communities and that the Ministry will also propose pilot scenarios located within the Comunidad Valenciana and Baleares.

In 2008, the European Commission gave its final approval to the proposal and an agreement was signed by the participating member states. Sweden was chosen to act as the co-ordinating country. The project was officially launched on 1 July 2008.

A budget of €22 million was committed for its 36 month duration, half from the European Commission and half from the participating member states. The money assigned to Spain was divided among the three autonomous communities participating as beneficiaries, to defray the implementation costs necessary for the pilot test.

The working groups were also defined in 2008, along with the efforts that each beneficiary undertook to make in them. Through its four beneficiaries, Spain is represented in all of the groups.

The work plan was structured into three one-year-long phases (design, implementation, exchange of clinical information) and the groups made progress towards achieving the objectives defined for the first phase: 1 July 2008 to 1 July 2009. Actual commencement of the project was delayed by about two months and thus the possibility of prolonging the work phases for the same period is under consideration.

The work methodology chosen was the creation of documents that set forth the agreements reached by group members and to which all group members contribute. In the final phase of each document all the beneficiaries can propose changes. If a conflict arises and cannot be resolved within the group, it is submitted to the decision-making bodies: the Project Executive Board (with one member per beneficiary) and, above it, the Project Steering Board (with one member per country).

In 2008 the following projects were undertaken:

- Analysis of the national solutions existing in both Patient Summary and e-Prescription services, and of the legislative and regulatory status of both of these services in each member state.
- Agreement on and functional definition of Patient Summary and e-Prescription. The Spanish Ministry of Health and Social Policy led the group tasked with creating a functional definition of Patient Summary, so as to be able to share the lessons learned during the process of defining this same service at the national level. Andalucía led the group given the task of creating a functional definition of e-Prescription, because of this community's experience in the implementation of this service at the regional level.

– Definition of the general evaluation methodology and analysis of the scalability of the project, to assess the possibility of subsequent implementation of the solutions found during the pilot test. This group will continue to work throughout all the phases of the project.

The dissemination and co-ordination groups started the work that will be performed throughout all the project's phases.

It is expected that in 2009 work will begin on the definition of semantic services, the definition of security services, the procedure and handling of unique patient and professional identification, the definition of test scenarios for the pilot test and also the definition of the technical architecture and common services needed for system integration and the implementation of the functionalities agreed upon by participants.

8.3 Development of Electronic Health Records in Spain's autonomous communities

When full responsibility for health care was transferred from the central government to the autonomous communities, each autonomous community undertook its own EHR project, introducing information systems designed to meet that community's particular needs. Some autonomous communities have drawn up a strategic plan that defines the main lines of action, while others have not. Likewise, some communities have chosen to embark upon a single project that encompasses all the necessary initiatives, while others have decided to divide EHR into several, more specific projects.

One of the main features characterising the starting point of the EHR projects is the distinction between care levels. In general, there is a Primary Care medical record and another Specialised Care medical record, and some autonomous communities have a third one for Urgent Care services. What is more, many of these medical record systems are distributed and thus no common database is available.

To allow health care professionals to access the information appearing in each type of record, two options are under consideration:

– Establishing a procedure for communication between the two systems, allowing the user to consult data regardless of where it is located, by means of a viewer.
– Developing a single system that integrates data regardless of the level at which it is generated (Integrated Medical Record).

Appearing below is a comparative summary of the contents of the various existing EHR models, according to the information provided by the autonomous communities. ***All of them provide access to the patient's clinical history, problem list, allergies and diagnosis and procedure coding.***

The presence of other content (and information blocks) included in the EHR is shown in Tables 8.1 to 8.5.

Table 8.1. Other general content included in the Electronic Health Record (by autonomous community)

	Anamnesis	Clinical exploration	Access to patient history from various care levels and settings	Vaccination mgmt	Clinical protocols	Care plans
Andalucía	YES	YES	YES	YES	YES	---
Aragón	YES	YES	YES	YES	YES	---
Asturias	YES	YES	YES (1)	YES	YES	---
Baleares	YES	YES	YES	YES	YES	---
Canarias	YES	YES	NO (1)	YES (2)	YES (2)	---
Cantabria	YES	YES	YES	YES	YES	---
Castilla y León	YES	YES	YES	YES (2)	NO	---
Castilla-La Mancha	YES	YES	YES	YES (2)	YES	---
Cataluña (3)	YES	YES	YES	YES	YES	---
Comunidad Valenciana	YES	YES	YES	YES	NO	---
Extremadura	YES	YES	YES	YES	YES	---
Galicia	YES	YES	YES	YES	YES	---
INGESA	YES	YES	YES	YES	YES	---
La Rioja	YES	YES	YES	YES	YES	---
Madrid	YES	YES	YES	YES	YES	---
Murcia	YES	YES	YES	YES	YES	---
Navarra	YES	YES	YES	YES	YES	YES
País Vasco	YES	YES	YES	YES	YES	---

Notes: (1) YES in Primary Care. NO in Specialised Care
(2) Deployed only in some areas of Primary Care/Specialised Care
(3) Hospitals belonging to public enterprises and consortia of Cat Salud and most of the Network of Public Use Hospitals

Source: Information provided by the autonomous communities (Annexes)

Table 8.2. Contents related to test requests included in the Electronic Health Record (by autonomous community)

	Prescription	Drug interaction alert	Allergy alert	Prescription printing	Electronic prescription	Electronic authorisation of prescriptions
Andalucía	YES	YES	YES	YES	YES	YES
Aragón	YES	NO	YES	YES	NO	NO
Asturias	YES	NO (4)	NO	YES	NO	YES
Baleares	YES	YES	YES	YES	YES	YES
Canarias	YES	YES	YES	YES	YES (1)	YES (1)
Cantabria	YES	NO	NO	YES	YES (4)	YES
Castilla y León	YES (1)	YES (1)	YES	YES (1)	NO	NO
Castilla-La Mancha	YES	YES	YES	YES	YES	YES
Cataluña (5)	YES	YES	YES	YES	YES	YES
Comunidad Valenciana	YES	YES	YES	YES	YES	YES
Extremadura	YES	YES	YES	YES	YES	YES
Galicia	YES	No	YES	YES	YES	YES
La Rioja	YES	YES	YES	YES(1)	NO	NO
Madrid	YES	YES	YES	YES	YES	YES
Murcia	YES	YES	YES	YES	NO	NO
Navarra	YES	NO (2)	YES (3)	YES	NO (2)	NO (2)
País Vasco	YES	YES	YES	YES	YES	---
Ceuta y Melilla	YES	YES	YES	YES	NO	NO

Notes: (1) YES in Primary Care. NO in Specialised Care
(2) In the development phase
(3) Partial development
(4) In the pilot testing phase
(5) Hospitals belonging to public enterprises and consortia of Cat Salud and most of the Network of Public Use Hospitals

Source: Information provided by autonomous communities before final reporting date for inclusion in this document

Table 8.3. Contents related to test requests included in the Electronic Health Record (by autonomous community)

	Biochemistry	Microbiology	Haematology	Anatomical pathology	Imaging diagnostics	Other (specify)
Andalucía	YES(2)	NO	YES	NO	YES(2)	Functional tests
Aragón	YES	YES	YES	YES	YES	---
Asturias	YES	YES	YES	YES	YES	---
Baleares	YES	YES	YES	YES	YES	---
Canarias	YES	YES	YES	YES	YES	---
Cantabria	YES (3)	YES (3)	YES (3)	YES (3)	YES (3)	---
Castilla y León	YES	YES	YES	YES(1)	YES	---
Castilla-La Mancha	YES	YES	YES (1)	YES (1)	YES	---
Cataluña (4)	YES	YES	YES	YES	YES	---
Comunidad Valenciana	YES	YES	YES	YES	YES	---
Extremadura	NO	NO	NO	NO	NO	Oral anticoagulant therapy
Galicia	NO	NO	NO	NO	NO	---
La Rioja	YES	YES	YES	YES	YES	Referrals, triage, pharmacy, breast pathology
Madrid	YES	YES	YES	YES	YES	---
Murcia	YES	YES	YES	YES	YES	---
Navarra	YES	YES	YES	YES	YES	---
País Vasco	YES	YES	YES	YES	YES	---
INGESA	NO	NO	NO	NO	NO	---

Notes: (1) YES in Primary Care. NO in Specialised Care
(2) Deployed only in some areas of Primary Care/Specialised Care
(3) Available in 2008 in local systems. To be deployed in 2009 in Electronic Health Record system
(4) Hospitals belonging to public enterprises and consortia of Cat Salud and most of the Network of Public Use Hospitals

Source: Information provided by autonomous communities before final reporting date for inclusion in this document

Table 8.4. Integration of results (I) in the Electronic Health Record (by autonomous community)

	Biochemistry	Microbiology	Haematology	Anatomical pathology	Imaging diagnostics	Other (specify)
Andalucía	YES	NO	YES	NO	YES (2)	---
Aragón	YES	YES	YES	NO	NO	---
Asturias	YES	YES (2)	YES	NO (3)	YES	---
Baleares	YES	YES	YES	YES	YES	---
Canarias	YES (1)	YES (1)	YES (1)(2)	YES (1)	YES (1)(2)	---
Cantabria	YES	YES	YES	YES	YES	---
Castilla y León	YES (1)	NO	YES(1)	NO	YES(1)	---
Castilla-La Mancha	YES	YES	YES(1)	NO	YES	---
Cataluña (5)	YES	YES	YES	YES	YES	---
Comunidad Valenciana	YES	NO	YES	NO	NO	---
Extremadura	YES	YES	YES	NO	YES	---
Galicia	YES	YES	YES	YES	YES	---
La Rioja	YES	YES	YES	YES	YES	Breast pathology, triage, pharmacy
Madrid	NO	NO	NO	NO	NO	---
Murcia	YES	NO	YES	YES	YES	---
Navarra	YES	YES (4)	YES	YES	YES	---
País Vasco	YES	YES	YES	YES	YES	---
INGESA	NO	NO	NO	NO	NO	NO

Notes: (1) NO in Primary Care. YES in Specialised Care
(2) Deployed only in some areas of Primary Care/Specialised Care
(3) In the development phase
(4) Partial development
(5) Hospitals belonging to public enterprises and consortia of Cat Salud and most of the Network of Public Use Hospitals

Source: Information provided by autonomous communities before final reporting date for inclusion in this document

Table 8.5. Other contents in the Electronic Health Record (by autonomous community)

	Consultation requests	Integration of clinical notes	Creation of clinical notes	Temp Inca docu-ment	Reporting Temp Incap to Inspection	Other (specify)
Andalucía	YES	YES	YES	YES	YES	---
Aragón	YES	NO	YES	YES	YES	---
Asturias	YES	YES	YES	YES	YES	Receipt of referral results
Baleares	YES	YES	YES	YES	YES	---
Canarias	YES	NO	YES	YES (1)	YES (1)	---
Cantabria	YES	YES	YES	YES	YES	---
Castilla y León	YES	YES (2)	YES	YES (1)	YES (1)	---
Castilla-La Mancha	YES	YES	YES	YES	YES	---
Cataluña (3)	YES	Sí	YES	YES	YES	---
Comunidad Valenciana	YES	YES	YES	YES	YES	---
Extremadura	YES	YES	NO	YES	YES	---
Galicia	YES	YES	YES	YES	YES	---
La Rioja	YES	YES	YES	NO	NO	Teleassistance, dermatology, teleophthalmology, neurophysiology
Madrid	YES	YES	YES	YES	YES	---
Murcia	YES	YES	YES	YES	YES	Partial digitalisation of paper HR
Navarra	YES	YES	YES	YES	YES	Reporting of PLDVs* to occupational health authorities. Reporting of EDOs** and flu cases to public health authorities
País Vasco	YES	YES	YES	YES	YES	---
Ceuta y Melilla	YES	NO	YES	YES	YES	---

Notes: (1) YES in Primary Care. NO in Specialised Care
(2) NO in Primary Care. YES in Specialised Care
(3) Hospitals belonging to public enterprises and consortia of Cat Salud and most of the Network of Public Use Hospitals
*PLDVs are occupational pathologies the reporting of which is voluntary
**EDOs are diseases the reporting of which is compulsory

Source: Information provided by autonomous communities before final reporting date for inclusion in this document

9 Professional regulation and training of health care personnel

9.1 Professional regulation

Of particular importance in 2008 were the publication of Royal Decree 1837/2008, which incorporates European regulations on professional recognition into the Spanish legal system, and the intense debate on planning for Spain's future requirements in terms of health professionals.

The national health system in Spain is highly decentralised yet structured around a solid regulatory framework consisting of the Law on the Regulation of Health Professionals and the Framework Statute applicable to the statutory employees of the health services. After the implementation in 2007 of what is called the Professional Career programme - a scheme devised to incentivise quality and ongoing training in the SNS - and various public employment processes, debate in 2008 has focused on the supposed deficit of specialists, health human resource planning, intra- and international mobility, registration and information systems and procedures for professional recognition and validation of qualifications obtained in other countries.

Transposition of Directive 2005/36/EC, of 7 September 2005, on the Recognition of Professional Qualifications

Royal Decree 1837/2008, of 8 November 2008 (published in the Official State Bulletin on 20 November) (Real Decreto 1.837/2.008[1]) incorporates European Parliament and Council Directive 2005/36/EC of 7 September 2005 on the recognition of professional qualifications. Five health professions are among those discussed in the Directive: medicine, general care nursing, obstetrical-gynaecological nursing (midwife-nursing), pharmacy, veterinary medicine and odontology.

There is general consensus on the importance of this body of regulations, the purpose of which is to facilitate the free provision of services and thus the free movement of EU citizens. The Directive first establishes that the concept of regulated profession refers to professional activity the access and practice of which is subject, by means of legal or administrative provisions, to the possession of certain qualifications. It goes on to define the procedure by

1 https://www.boe.es/boe/dias/2008/11/20/pdfs/A46185-46320.pdf

which each country must regulate the recognition of the qualifications obtained in another member state, the competent authorities in the issue of titles and certifications in each country, the institutions in charge of validating degrees from other countries, the minimum, common periods for training or professional practice, the processing period and the additional documentation that must accompany the request made by the concerned party.

In the case of the five health care professions addressed in the legislation, the official degrees of university training, or of specialist training, if they are the same and meet the minimum training requirements established, are subject to the principle of automatic recognition, with no need to accredit professional experience or to pass aptitude tests. The minimum standards include basic training in medicine of at least six years or 5500 hours of theoretical-practical teaching; specialised medical training through a residency system, to be done full time in accredited centres, with a minimum duration for each specialty between three and five years; a minimum training lasting three years or 4600 hours in the case of general care nursing; five years of basic training in the case of odontology, veterinary medicine and pharmacy; and specific training in obstetrical-gynaecological nursing lasting at least 18 months.

Human resource planning

The concern expressed by the directors of the SNS on the subject of regular programming and planning in response to the country's needs for health professionals has led to two key strategies being put in place in 2008: the introduction of a Registry of Health Professionals and the update of the study on needs in medical specialists.

Since the adoption of the resolution of the SNS Interterritorial Council on 14 March 2007, the creation of a Registry of Health Professionals[2] is considered to be of vital importance for the health information system of the SNS. In 2008, the various administrations involved have advanced in two essential aspects; one, the preparation of the legal instrument which will provide suitable legal coverage to the respective registries and, two, the introduction of a computerised structure that is linked to the registry of the Ministry of Health and Social Policy. Andalucía has been pioneering in this type of regulation with the publication of Decree 427/2008, of 29 July 2008[3], by which the Registry of Health Professionals of Andalucía was created.

2 The Interterritorial Council's resolution on registries of health professionals https://www.boe.es/boe/dias/2007/04/14/pdfs/A16582-16585.pdf

3 Decree 427/2008 of the autonomous community of Andalucía http://www.juntadeandalucia.es/boja/boletines/2008/154/d/26.html

Also considered fundamental in human resource planning is the update of the Study on Specialist Supply and Needs for the period 2006-2030[4] To update the study, in 2007 the Ministry of Health and Consumer Affairs (the former name of the Ministry) gathered, in collaboration with the 17 Regional Health Services, the registry data regarding medical specialists employed by the SNS, by age range and sex, in order to prepare the report **"*Medical Specialist Supply and Needs in Spain (2008-2025).*"** This project (published in March of 2009) estimated that, in 2008, Spain had 144,379 active medical professionals, which means there is a ratio of 325 for every 100,000 inhabitants. Among them, there are 104,598 specialists working in the SNS. This figure represents 56% of the doctors who are members of the official professional association and are under the age of 65. Approximately 40% of the specialists are over 50 and 45% are women.

The study takes into account ***supply variables*** such as medical demography, by considering the registry data of professionals furnished by the autonomous communities, data on medical schools' numerus clausus and on medical school graduates, the number of places offered in specialised training programmes and the validation of general medicine and specialist degrees from other countries. It also analyses ***demand variables***, such as demographic information on the population as a whole, the perceived needs of the autonomous communities, the number of jobs available. The study also includes the opinions of experts with regard to variations in health care demand by specialty, technological advances and organisational changes in the system.

The report concluded (Table 9.1) that in 2008 there would be a need for 3200 additional specialists, which represents 2% more than the total at the time, and that if measures are not put in place, needs for health professionals will grow moderately (5%) through 2015, and then more intensely, reaching 14% in 2025. The ratio of specialists per 100,000 inhabitants shows a slight tendency towards growth through 2015, returning to something similar to the current figure in 2025.

4 Study on Specialist Supply and Needs (2006-2030)
http://www.juntadeandalucia.es/boja/boletines/2008/154/d/26.html

Table 9.1. Medical specialist needs in Spain 2008-2025			
	2008	2015	2025
Inhabitants (million)	44.3	46.3	48.0
Specialists needed per one hundred thousand inhabitants	319	323	317
Estimate of total number of specialists	161,966	171,100	174,071
Estimate of number of specialists needed	165,205	180,169	198,962
Percentage of additional specialists needed	2%	5.3%	14.3%

Source: Ministry of Health and Social Policy. Study on Medical Specialist Supply and Needs in Spain (2008-2025)

As for the distribution of needs for specialists (Table 9.2), the study indicates that the areas of specialisation with the greatest deficits are: Anaesthetics and Recovery; Orthopaedic Surgery and Trauma (OST); Paediatric Surgery; Plastic, Cosmetic and Reconstructive Surgery; Family and Community Medicine (FCM); Paediatrics and its Specific Areas; Diagnostic Radiology; and Urology.

Table 9.2. Percentage of additional specialists needed in 2008 with respect to total in each specialty	
ANAESTHETICS	3%
OST	2%
PAEDIATRIC SURGERY	3%
PLASTIC SURGERY	2%
FCM	3%
PAEDIATRICS	2%
DIAGNOSTIC RADIOLOGY	3%
UROLOGY	3%

Source: Ministry of Health and Social Policy. Study on Medical Specialist Supply and Needs in Spain (2008-2025)

The Green Paper on the European Workforce for Health

At the European Union level, the European Commission published, on 10 December 2008, the Green Paper on the European Workforce for Health [5] with the aim of describing the challenges faced by health professionals in all member states, such as the ageing of the general population and of the health workforce, the low attractiveness of a number of jobs in the sector, the migration of professionals in and out of the EU, as well as the brain drain from third countries. It indicates several possible areas of action, such as: assessment of the health expenditure, promotion of ongoing professional development, encouragement of "circular" mobility within the EU, establishment of principles for hiring professionals from developing countries, harmonisation of human resource indicators in the sector and improved data availability and, finally, the use of Structural Funds for training and retraining professionals and for modernising infrastructure, in an effort to improve working conditions.

Summary and conclusions

Perhaps more now than in the past, health care experts and managers have become aware of the crucial role that human capital plays in health care systems. In an international context characterised by a deficit of professionals and in the face of warnings regarding the shortage of professionals in some specialties in the SNS, the public administrations are working hard to achieve improved governance of the various levels of organisation and regulation of professionals, the creation of registration systems, the adjustment of the number of students in undergraduate programmes and specialised training, the incentivisation of ongoing professional development, the commissioning of consultancy projects to assist in planning for long- and medium-term personnel needs and the regulation of entry of professionals from outside the European Union.

9.2 Specialised health care training

The publication on 22 November 2003 of the Law on the Regulation of Health Professionals, whose Chapter III, Title II addresses Specialised Health Care Training, had a tremendous impact on a health sector that had enjoyed consolidation and relative stability since, back in the 1960s, early forms of residencies at some hospitals had begun and, particularly, since Royal Decree 127/1984 had established that residency training in accredited centres was the only way to receive training and obtain qualifications as a medical specialist. Since the publication of the aforementioned Law, the reforms imposed or suggested

5 The Green Paper on the European Workforce for Health
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0725:FIN:ES:PDF

by it have arrived one after another at a pace considered too slow by some sectors but which is unavoidable due to the great significance of each modification and to the necessity to assess the demands and needs of the central government, the health services of the autonomous communities, professional associations, scientific societies, university students and, of course, the residents in training.

Against this backdrop, 2008 can be considered a year of transition, marked by the intense activity of the working groups and technical commissions of the Human Resources Commission of the SNS, by the consolidation of the Resident's Statute, by the new training programmes put in place in a large number of specialties (programas formativos publicados en 2008[6]) and, especially, by the publication of Royal Decree 183/2008, of 8 February 2008, which establishes and classifies the medical and health science specialties and regulates certain aspects of specialised health care training.[7]

Royal Decree on Medical and Health Science Specialties

Royal Decree 183/2008, of 8 February 2008, which establishes and classifies the medical and health science specialties and regulates certain aspects of specialised health care training, constitutes yet another step in the process towards modernisation and progressive achievement of the "State of Autonomies" (Spain's configuration as a state comprised of autonomous communities) begun by the Law on the Regulation of Health Professionals. In this respect, the Royal Decree has a two-fold intention, on the one hand, to make advances in the

6 New training programmes put in place in 2008
http://www.msc.es/profesionales/formacion/guiaFormacion.htm:

Ministerial Order SCO/634/2008, of 15 February 2008, which approves and publishes the training programme for the speciality of Diagnostic Radiology

Ministerial Order SCO/846/2008, of 14 March 2008, which approves and publishes the training programme for the speciality of Physical Medicine and Rehabilitation

Ministerial Order SCO/847/2008, of 14 March 2008, which approves and publishes the training programme for the speciality of Neurosurgery

Ministerial Order SCO/2603/2008, of 1 September 2008, which approves and publishes the training programme for the speciality of Geriatrics

Ministerial Order SCO/2604/2008, of 1 September 2008, which approves and publishes the training programme for the speciality of Nephrology

Ministerial Order SCO/2605/2008, of 1 September 2008, which approves and publishes the training programme for the speciality of Pulmonology

Ministerial Order SCO/2616/2008, of 1 September 2008, which approves and publishes the training programme for the speciality of Psychiatry

Ministerial Order SCO/2617/2008, of 1 September 2008, which approves and publishes the training programme for the speciality of Clinical Neurophysiology

7 http://www.msc.es/profesionales/formacion/docs/realDecreto183_2008.pdf

introduction of the specialised health care training model described in the said Law and, on the other hand, to strengthen the teaching structures, with emphasis on the basic aspects which have repercussions on the learning process of the future specialists, from the perspective of both organisation and teaching.

The name of the Decree reflects this two-fold purpose: first, the effort to create a systematic arrangement, incorporating unified concepts throughout the system, which are manifest in the overall relationships between the medical and health science specialties and in their classification based on criteria of multidisciplinarity. Additionally, the Decree complements the regulation of aspects related to work and the employment relationship with the resident laid down two years earlier in Royal Decree 1146/2006, while focusing on basic aspects of the training system, such as the figure of the tutor, teaching units, teaching commissions or the details of the evaluation procedures that guarantee the rights of residents with regard to negative evaluations.

Common training pathways

In June of 2008, the National Council of Medical Specialties presented its report on common training pathways for medical specialties, which had been commissioned by the Ministry of Health and Social Policy. The report proposes that the medical specialties be distributed in three pathways: 1) medicine, 2) surgery, and 3) medicine and clinical laboratory. It also addresses subjects such as basic competencies, itineraries, access systems and evaluation of the different pathways.

Subsequently, in October of 2008, a Working Group of the Human Resources Commission of the SNS was created, with representatives of the autonomous communities and the Ministry. Its mission was to formulate a proposal on the contents and structure of the training pathways from the institutional point of view.

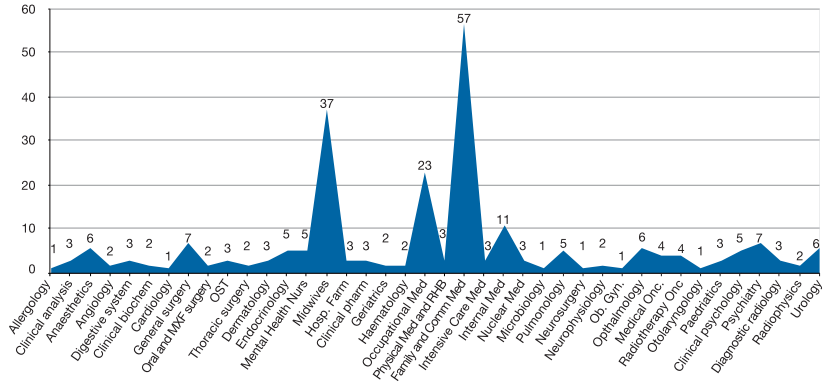
Teaching accreditation

Accreditation is always an ongoing process and for this reason Accredited Teaching Centres and Units are submitted periodically to external auditing procedures performed by the Quality Agency of the SNS (in 2008 a total of 42 audits were performed on teaching centres and 189 on teaching units). Also monitored is their application of the improvement plans by which the recommendations made in the audits are to be incorporated.

National medical specialty boards, in their capacity as Ministry's advisory bodies, take part in the accreditation and monitoring processes.

Looking at absolute numbers, the specialties with the greatest increase in accredited training places in 2008 were Family and Community Medicine (57), Obstetrical-Gynaecological Nursing (nurse-midwives) (37) and Occupational Medicine (23) (see Figure 9.1).

Figure 9.1. New accredited training places in 2008, by specialty

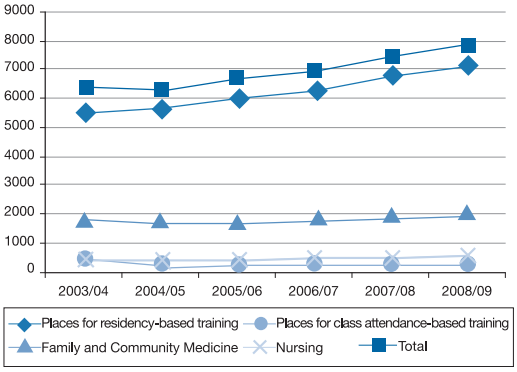


Source: Ministry of Health and Social Policy

Specialised training places offered

With respect to the specialist needs perceived by the autonomous communities and reflected in the studies on specialist needs conducted by the Ministry, in recent years there has been progressive growth in the number of places offered to graduates who wish to receive specialised health care training. More specifically, the figures indicate an 18.6% increase in the 2003-2008 period, with the total rising from 6404 places in 2003/04 to 7866 places in 2008/09 (Figure 9.2).

Figure 9.2. Increase in training places, 2003/4-2008/9



Source: Ministry of Health and Social Policy

The number of specialised training places available in 2008 was 7866, distributed as follows:

- Specialties with training based on a residency programme: 7111 from the non-nursing professions in the health care sector and 563 in nursing. The specialties with the highest number of places offered were: Family and Community Medicine (1892), Paediatrics and its Specific Areas (395), Anaesthetics and Recovery (337) and Internal Medicine (324). The first three are considered deficient in relation to expected needs for professionals.
- Specialties with training based on class attendance: 192

Access to specialised health care training

The calls to participate in the selective exams of 2007 to gain access to the specialised health care training places in 2008 were made through Ministerial Order SCO/2705/2007, of 12 September 2007, for doctors, pharmacists, chemists, biologists, psychologists and hospital radiophysicists and in Ministerial Order SCO/2706/2007, of 12 September 2007, for nursing specialties (both published in the Official State Bulletin of 19 September[8]).

In the exams of 2007/08 the upward trend observed in recent years continued, both in the number of places offered and in the number of candidates who registered for and sat the exam in the seven programmes. Among doctors, for example, the total number of places offered saw an overall increase in five years of close to 15%. This was accompanied by a parallel increase in the number of candidates who registered for the medical exam, which went from 8565 candidates in 2003/04 to 10,620 in 2007/08 , i.e. an increase of 23.9% in five years.

Except in the case of radiophysicists, the candidates who sat the exam on 19 January 2008 suggest that there will a notable female majority among future health science specialists (Table 9.3).

8 http://www.boe.es/boe/dias/2007/09/19/index.php

Table 9.3. Call for applicants for specialised health care training places 2007/2008

	WOMEN		MEN		TOTAL
	REGISTERED	%	REGISTERED	%	
BIOLOGY	267	74.37	92	25.63	359
PHARMACY	775	79.08	205	20.92	980
MEDICINE	6,447	60.71	4,173	39.29	10,620
PSYCHOLOGY	1,633	83.61	320	16.39	1,953
CHEMISTRY	126	70.39	53	29.61	179
RADIOPHYSICS	109	38.65	173	61.35	282
NURSING	5,539	92.04	479	7.96	6,018
TOTAL	14,896	73.05	5,495	26.95	20,391

Source: Sub-Directorate General of Professional Regulation. Ministry of Health and Social Policy

Tabla 9.4. Evolution of offer and adjudication of places for specialised medical training in the years 2003/04 to 2007/08

	2003/04		2004/05		2005/06		2006/07		2007/08	
	Offer	Adjud	Offer	Adjud	Offer	Adjud	Offer	Adjud	Offer	Adjud
ALLERGOLOGY	49	49	48	48	54	54	51	51	56	56
CLINICAL ANALYSIS	49	49	40	40	34	34	36	36	35	34
ANATOMICAL PATHOLOGY	55	55	55	54	72	72	74	73	86	86
ANAESTHETICS AND RECOVERY	273	273	281	281	288	288	311	311	324	324
ANGIOLOGY AND VASCULAR SURGERY	28	28	31	31	32	32	32	32	36	36
DIGESTIVE SYSTEM	104	104	107	107	108	108	115	115	131	131
CLINICAL BIOCHEMISTRY	21	21	27	27	23	23	22	22	21	20
CARDIOLOGY	114	114	111	111	119	119	129	129	144	144
CARDIOVASCULAR SURGERY	17	17	19	19	24	24	24	24	29	29
GENERAL AND DIGESTIVE SYSTEM SURGERY	90	90	94	94	161	161	161	161	185	185

	2003/04		2004/05		2005/06		2006/07		2007/08	
	Offer	Adjud	Offer	Adjud	Offer	Adjud	Offer	Adjud	Offer	Adjud
ORAL AND MAXILLOFACIAL SURGERY	25	25	25	25	30	30	29	29	30	30
ORTHOPAEDIC SURGERY AND TRAUMA	165	165	176	176	179	179	190	190	200	200
PAEDIATRIC SURGERY	12	12	14	14	18	18	20	20	20	20
PLASTIC, COSMETIC AND RECONSTRUCTIVE SURGERY	28	28	28	28	29	29	29	29	33	33
THORACIC SURGERY	13	13	18	18	23	23	21	21	25	25
DERMATOLOGY AND VENEREOLOGY	57	57	54	54	58	58	64	64	69	69
ENDOCRINOLOGY AND NUTRITION	52	52	51	51	55	55	56	56	62	62
CLINICAL PHARMACOLOGY	21	21	21	21	20	20	21	21	23	22
GERIATRICS	44	44	45	45	48	48	51	51	56	56
HAEMATOLOGY AND HAEMOTHERAPY	64	64	66	66	92	92	96	96	115	115
MEDICAL HYDROLOGY	10	10	10	10	10	10	10	10	10	10
IMMUNOLOGY	14	13	14	13	14	14	14	14	14	13
OCCUPATIONAL MEDICINE	305	305	77	77	71	71	105	105	129	129
PHYSICAL EDUCATION MEDICINE	135	127	120	120	110	75	115	66	115	74
FAMILY AND COMMUNITY MEDICINE	1,770	1,770	1,682	1,682	1,700	1,648	1,771	1,582	1,859	1,606
PHYSICAL MEDICINE AND REHABILITATION	75	75	78	78	80	80	80	80	91	91
INTENSIVE CARE MEDICINE	125	125	126	126	130	130	140	140	151	

	2003/04		2004/05		2005/06		2006/07		2007/08	
	Offfer	Adjud.	Offfer	Adjud.	Offfer	Adjud.	Offfer	Adjud.	Oferta	Adjud.
INTERNAL MEDICINE	239	239	247	247	261	261	265	265	293	
LEGAL AND FORENSIC MEDICINE	20	20	22	22	31	31	31	29	23	
NUCLEAR MEDICINE	29	29	31	31	40	40	39	39	43	
PREVENTIVE MEDICINE AND PUBLIC HEALTH	49	49	57	57	71	71	78	76	80	
MICROBIOLOGY AND PARASITOLOGY	53	53	57	56	50	50	54	54	47	
NEPHROLOGY	84	84	83	83	87	87	90	90	95	
PULMONOLOGY	70	70	70	70	88	88	92	92	103	
NEUROSURGERY	25	25	30	30	43	43	40	40	44	
CLINICAL NEUROPHY-SIOLOGY	43	43	43	43	46	46	43	43	50	
NEUROLOGY	99	99	98	98	106	106	103	103	107	107
OBSTETRICS AND GYNAECOLOGY	200	200	205	205	218	218	228	228	251	251
OPHTHALMOLOGY	120	120	146	146	149	149	148	148	160	160
MEDICAL ONCOLOGY	75	75	76	76	81	81	85	85	100	100
RADIATION ONCOLOGY	23	23	30	30	38	38	41	40	48	48
OTOLARYNGO-LOGY	65	65	74	74	74	74	73	73	81	81
PAEDIATRICS AND SPECIFIC AREAS	295	295	315	315	330	330	337	337	370	370
PSYCHIATRY	169	169	179	179	189	189	208	208	223	223
DIAGNOSTIC RADIOLOGY	201	201	203	203	204	204	209	209	217	217
RHEUMATOLOGY	41	41	43	43	43	43	44	44	48	48
UROLOGY	55	55	56	56	73	73	73	73	85	85
TOTAL	**5,670**	**5,661**	**5,483**	**5,480**	**5,804**	**5,717**	**6,048**	**5,804**	**6,517**	**6,216**

Source: Sub-Directorate General of Professional Regulation. Ministry of Health and Social Policy

Table 9.5. Summary of the most significant data regarding selective exams 2007/2008

ADMISSION PHASE		Medicine		Pharmacy		Chemistry		Biology		Psychology		Radiophysics		Nursing		TOTALS	
Number of APPLICATIONS		10,793		987		181		364		1,974		283		6.054		20,636	
Candidates Registered	Women (Nº y %)	6,447	60.1	775	79.8	126	70.9	267	74.7	1,633	83.1	109	38.5	5,539	92.4	14,896	73.5
	Men (Nº y %)	4,173	39.9	205	20.2	53	29.1	92	25.3	320	16.9	173	61.5	479	7.6	5,495	26.5
	TOTAL	10,620		980		179		359		1.953		282		6.018		20,391	

SELECTION PHASE	MED	PHAR	CHEM	BIO	PSY	RADF	NUR	TOTAL
CANDIDATES WHO SAT THE EXAM	8,985	877	135	274	1,644	225	4,848	16,988
% CAND WHO SAT EXAM/TOTAL REGISTERED	84.60	89.49	75.42	76.32	84.18	79.79	80.56	83.31
RATIO CAND WHO SAT EXAM/PLACE	1.38	3.33	5.00	7.21	15.36	7.50	9.93	
CANDIDATES ON LIST OF POTENTIAL ADJUDICATEES	8,898	869	133	271	1.636	34	4,828	
RATIO CANDIDATES ON LIST OF POTENTIAL ADJUDICATEES/ PLACES	1.37	3.30	4.93	7.13	15.29	1.13	9.89	

ADJUDICATION PHASE	MED	PHAR	CHEM	BIO	PSY	RADF	NUR	TOTAL
PLACES OFFERED	6,517	263	27	38	107	30	488	7,470
PLACES ADJUDICATED	6,216	261	27	37	107	30	488	7,166
PLACES NOT ADJUDICATED	301	2	0	1	0	0	0	304
LAST NUMBER ON LIST WITH PLACE ADJUD.	8,897	420	28	37	108	30	1,474	

Source: Sub-Directorate General of Professional Regulation. Ministry of Health and Social Policy

The selective exams held on 19 January 2008 did not incorporate qualitative changes in terms of candidate requirements, but they did consolidate the rule, introduced one year earlier, that candidates from countries in which Spanish is not the official language must prove that they have a good command of the language. Also, as a technical improvement, the option to use a new system for the automatic verification of national identity cards was introduced.

The places offered were adjudicated between 3-18 April 2008, with 301 places remaining vacant, all of them among the total of 6517 places offered in Medicine. Of the places left vacant 253 were in Family and Community Medicine, a specialty that plays a key role in the organisation of the SNS, with such vacancies representing 13.61% of the 1859 places available for training in this specialty. Moreover, in 2008 the maximum quota of places - 617 - that can be adjudicated to non-EU doctors was not filled.

Residents in training

Following the two-tiered process of incorporating new residents (20 May 2008), and of the graduation of residents who have completed the final year of training (3 June in the case of the specialties lasting four years and 20 June in the case of specialties lasting five years), the total number of residents in the National Registry of Specialists in Training was 23,763.

Table 9.6. Residents in specialised health care training in September 2008

SPECIALTY	NUMBER	SPECIALTY	NUMBER
Allergology	164	Family and Community Medicine	5565
Clinical Analysis	299	Physical Medicine and Rehabilitation	303
Anatomical Pathology	232	Intensive Care Medicine	605
Anaesthetics and Recovery	1182	Internal Medicine	1227
Angiology and Vascular Surgery	158	Nuclear Medicine	121
Digestive System	458	Preventive Medicine and Public Health	163
Clinical Biochemistry	220	Microbiology and Parasitology	228
Cardiology	605	Nephrology	331
Cardiovascular Surgery	107	Pulmonology	327
General and Digestive System Surgery	669	Neurosurgery	171
Oral and Maxillofacial Surgery	134	Clinical Neurophysiology	135
Orthopaedic Surgery and Trauma	893	Neurology	404
Paediatric Surgery	79	Obstetrics and Gynaecology	880
Plastic, Cosmetic and Reconstructive Surgery	146	Ophthalmology	590
Thoracic Surgery	97	Medical Oncology	333
Medical-Surgical Dermatology and Venereology	243	Radiation Oncology	142
Endocrinology and Nutrition	219	Otolaryngology	288
Mental Health Nursing	119	Paediatrics and Its Specific Areas	1342
Obstetrical-Gynaecological Nursing	707	Clinical Psychology	294
Hospital Pharmacy	503	Psychiatry	779
Clinical Pharmacology	55	Diagnostic Radiology	805
Geriatrics	155	Hospital Radiophysics	84
Haematology and Haemotherapy	353	Rheumatology	164
Immunology	84	Urology	332
Occupational Medicine	269		
TOTAL	23.763		

Source: Sub-Directorate General of Professional Regulation. Ministry of Health and Social Policy

Table 9.7. Specialists in training who are not of Spanish nationality

COUNTRY OF NATIONALITY	NUMBER	COUNTRY OF NATIONALITY	NUMBER
Germany	43	Greece	2
Andorra	7	Guatemala	11
Angola	4	Equatorial Guinea	5
Argentina	198	Netherlands	9
Algeria	13	Honduras	5
Armenia	2	Hungary	4
Austria	4	Iran	5
Belgium	2	Iraq	2
Belize	1	Israel	7
Bolivia	72	Italy	184
Bosnia	2	Jordan	8
Brazil	36	Lebanon	5
Bulgaria	10	Lithuania	1
Cameroon	2	Morocco	59
Czech Republic	6	Mexico	83
Chile	20	Moldavia	5
China	1	Palestine	13
Colombia	229	Panama	8
Congo	5	Paraguay	22
Korea	2	Peru	501
Costa Rica	3	Poland	12
Croatia	2	Portugal	10
Cuba	133	Romania	122
Cape Verde	4	Russia	16
Dominican Republic	55	El Salvador	15
Ecuador	105	Serbia	3
Egypt	5	Syria	13
Slovenia	1	Sweden	6
Slovakia	5	Tunisia	1
Finland	2	Ukraine	20
France	21	Uruguay	18
United Kingdom	5	United States	13
Georgia	4	Venezuela	146
	TOTAL	2.338	

Source: Sub-Directorate General of Professional Regulation. Ministry of Health and Social Policy

Parallel to the growth in the number of places and residents, in 2008 an increase in administrative procedures related to specialties was also seen; there were 44 requests for a ***change of specialty*** and 103 requests for ***recognition of previous training periods.*** These figures, compared to the 51 requests made in 2003, represent a growth of almost 88% over the past five years.

In an international context characterised by rising mobility among health care professionals, in 2008 the training system in Spain had 2338 foreign residents (9.8% of the total) of which 458 were nationals of other EU member states or countries of the European Economic Area (Table 9.7). This phenomenon also explains the rising number of authorisations granted to foreign graduates or specialists who wish to receive training in Spain's accredited centres. In 2008 there were 750 such authorisations, more than double the 312 authorisations granted in 2004.

Summary and conclusions

The foregoing information illustrates that Spain has a specialised health care training system that is highly developed, highly regulated, and perhaps overly rigid, but with capacity to provide high-quality, internationally prestigious training in 54 different specialties to a large group of residents, who come from seven different university degree programmes. The system is also in expansion, in terms of both the number of accredited places offered and also in the number of candidates from all the degrees. The system has renewed, over the past four years, most of its training programmes and is currently working on the definition of the programmes for the new nursing specialties approved by Royal Decree 450/2005, of 22 April 2005.

Despite its achievements, the system is undergoing a profound transformation that is moving the very foundations of the systemisation of specialties, the applicant selection system, the training structure (through the definition of common initial pathways for similar specialties), the strengthening and recognition of teaching structures and the evaluation system. The publication of Royal Decree 183/2008, of 8 February 2008, represents a vital step in this process of renewal, as it introduces new concepts, adapts the system to Spain's unique situation as a "State of Autonomies" and also makes plans in accordance with the modifications foreseen for coming years.

9.3 Ongoing training

The Ongoing Training Commission and the training accreditation system

The publication of Law 44/2003, on the Regulation of Health Professionals gives new impetus to ongoing training and the corresponding accreditation

system. The Law considers the Ongoing Training Commission to be responsible for harmonising ongoing training functions in institutions, bodies and the public administrations in charge of health care, and also for co-ordinating actions that are undertaken in this field. The justification for this consideration is found in Art. 38 of Law 16/2003, of 28 May 2003, on the Cohesion and Quality of the SNS, which require that all levels of public administration establish common criteria for regulating ongoing training activities, so as to ensure the quality of such activities throughout the SNS.

This is the aim of Royal Decree 1142/2007 (published in the Official State Bulletin of 14 September), on the composition and functions of the Ongoing Training Commission and on the system used to accredit ongoing training activities.

This Royal Decree gives the Ongoing Training Commission the status of a multi-party public administrations body, attached to the Human Resources Commission of the SNS, and states that it shall be comprised of: two representatives of the Ministry of Health and Social Policy, one of which will act as Chair; one representative of the Ministry of Education; one representative of the Ministry of Defence; one representative from each of the autonomous communities on the Interterritorial Council of the SNS and the Secretary of the Commission, who shall be a civil servant from the Ministry of Health and Social Policy.

During 2008, the main actions decided at the Plenum of the Ongoing Training Commission were:

- ***To reaffirm the validity of the accreditation system in use since February 1998***, until such time when new criteria are adopted. The system referred to consists of the criteria, procedures and requirements established by the Ongoing Training Commission of the SNS by virtue of the Sectoral Conference Accord (sector-wide agreement formulated by the body that facilitates co-operation between the state and autonomous communities in a given sector), regarding:
  - The Assessment Protocol, a series of criteria and standards established in advance and based upon a quantitative component pertaining to the activity's duration and a qualitative component related to the pedagogical features of the training activity.
  - The external evaluation process used for assessing the quality of the activities, comparing and contrasting the activity descriptors with the standards established.
  - The standardised forms used to request accreditation, which require that the concerned parties supply information regarding the provider, the activity and funding.

  - The use of credits per activity as derived from the quantitative and qualitative assessment.
  - The regulation of how the logo and accreditation must appear in all the promotion materials and in the certificate issued by the provider-promoter of the activity.
- ***To prepare a document proposing the Commission's Internal Regulations***, with an operative scheme based on the Plenum, Technical Commissions and Working Groups. If the need arises, it allows for the possibility of an Executive Commission to carry out the functions expressly delegated to it by the Plenum.
  The Internal Regulations, besides reflecting the functions assigned to the Ongoing Training Commission in Art. 34.4. of Law 44/2003, of 21 November 2003, and other applicable rules and regulations, also specifies the Commission has the function of defining and standardising data and dataflow, and selecting the indicators and technical requirements needed for the Accreditation Information System.
- ***To create a Technical Commission on Accreditation*** with the same representation as the Plenum of the Ongoing Training Commission. Its Chair is the Chair of the Plenum, which corresponds to the Deputy Director General of Professional Regulation of the Ministry of Health and Social Policy, with the following functions:
  - Studying, preparing a report and formulating a proposal regarding the procedures, criteria and requirements for the accreditation of ongoing training centres and activities.
  - Studying, preparing a report and formulating a proposal regarding the procedures, criteria and requirements for the accreditation and advanced accreditation of professionals in a specific functional area of a profession or specialty, as a consequence of engaging in accredited ongoing training activities.
- ***To make a proposal regarding the distribution of responsibilities in the accreditation of ongoing training activities.*** Royal Decree 1142/2007, of 21 August 2007, stipulates in Art. 8 that the accreditation of ongoing training corresponds to the Ministry of Health and Social Policy and to the autonomous communities, each in the scope of their respective responsibilities. In order to implement the provisions of this article, the Technical Commission on Accreditation defines the procedure for such distribution[9].

9 http://www.msc.es/profesionales/formacion/formacionContinuada/procedimiento.htm #presentacionSol

– ***To study the procedure used for evaluating distance training activities.*** The Guidebook-Procedure for the accreditation of distance activities was presented. The Guide defines distance training as that which uses any communication system that substitutes personal interaction between the teacher and student in a classroom as the preferred method of teaching, through joint, systematic use of various didactic recourses and supported by organisational features that foment independent and flexible learning by the student.
The Guide classifies distance training into two categories: Type I, which can be based on either the "provision of contents" approach or the "management of contents with elements of the new technologies" approach and Type II, based on the "on-line contents" approach, which incorporates a broader understanding of the learning process.
  – ***Distance training based on "provision of contents"***: this mode reproduces traditional approaches, based on personal study of training materials sent by post. Over time, with the arrival of new technologies, the only difference introduced was faster delivery of materials (journals, monographic papers, books, etc.).
  – ***Distance training based on "management of contents with elements of the new technologies"***: this mode recognises that education is more than the simple distribution of contents. It seeks to use the new technologies to reproduce the traditional setting, recreating the classroom, the formal experience of learning (using CDs, videos, DVD, etc.).
  – ***Distance training based on "on-line approach"***: this mode reproduces the processes involved in learning and acknowledges the need for a key element - communication. It is based on the idea that effective learning requires dialogue, conversation, debate and reflection and thus makes these activities the central part of the training process, which is conceived as a social, not a solitary, process.

The Guide also sets forth how distance training is to be evaluated.[10]

Ongoing training accreditation systems in the autonomous communities

Since the Ongoing Training Commission began its activity in 1997, the autonomous communities have been developing their own commissions and accreditation systems, based on the guidelines contained in the Sectoral

10 http://www.msc.es/profesionales/formacion/formacionContinuada/procedimiento.htm#criteriosEva

Conference Accord (as set forth in the Resolution of 22 December 1997, made by the Undersecretary of the Ministry of Health). Such commissions have a composition similar to that of the Ongoing Training Commission of the SNS and their implementation regulations vary according to the characteristics of each autonomous community.

The Accord provides that the functions and agreements of the Commission will be regulated and executed through the administrative bodies of the Regional Ministries of Health.

In addition, Art. 9 of Royal Decree 1142/2007, of 31 August 2007, states that the accreditation system for ongoing training in the health professions of the SNS is comprised of: the Ongoing Training Commission for the Health Professions and the specific accreditation bodies created by the Ministry and the autonomous communities.

This territorial decentralisation is not yet fully complete. Thus, in 2008 the situation as regards the autonomous communities and their respective accreditation systems was as follows:

- Asturias and Canarias did not have an operative accreditation system.
- Andalucía, Aragón, Baleares, Cantabria, Castilla-La Mancha, Galicia, Navarra, País Vasco and Comunidad Valenciana had an operative accreditation system covering all health professions, both those requiring degrees and those requiring vocational training, and all formats of training activities (regular and distance learning).
- Castilla y León, Cataluña, Extremadura, Rioja, Madrid and Murcia had operative accreditation systems but they were limited to certain health professions and/or certain activity formats.

9.4 Main actions related to ongoing training and the accreditation system

In 2008, the accreditation system was broadened to cover ongoing training activities for all the health care professions included in Law 44/2003, of 21 November 2003, on the Regulation of Health Professionals.

Below is a summary of all the actions carried out, both by the administrative body of the Ministry of Health and Social Policy, and by the different autonomous communities:

Tabla 9.8. Total number of actions in ongoing training and the accreditation system, 2008

ACCREDITATION REQUESTS RECEIVED	20,365
ACTIVITIES ACCREDITED	18,307
ACTIVITIES ACCREDITED BY TARGET PROFESSIONAL: (*)	
Health professionals with degrees from 4-6 yr programmes	10,682
Health professionals with degrees from 3 yr programmes	7,309
Technicians with higher level vocational training	1,098
Technicians with intermediate level vocational training	1,267

Top five accredited subjects, as informed by the ACs and INGESA

1. CLINICAL PRACTICE
2. MANAGEMENT AND QUALITY
3. RESEARCH
4. PUBLIC HEALTH
5. PATIENT SAFETY

Notes: *The sum includes activities targeting more than one group of health professionals
Source: Ministry of Health and Social Policy, ACs and INGESA

10 Research

The year 2007 brought the enactment of the Spanish Law on Biomedical Research. This legislation is of key importance in efforts to improve life expectancy and quality of life. The law provides for a new form of organisation in biomedical research, which in this new context requires a multidisciplinary approach, closer contact between the basic researcher and the clinical researcher, and co-ordination and research networks, so as to guarantee that the research conducted is of the highest quality.

Biomedical knowledge is generated through the firm support of the public administrations, which provide significant human and economic resources and also necessary infrastructure. Both the central government, as the public authority responsible for promoting and co-ordinating technical and scientific research at the state level, and also the regional governments, which have all included in their respective statutes of autonomy the power to promote research, are creating biomedical research structures within Spain's National Health Service (hereinafter the SNS). The aim is to make the best and most efficient use of the resources available, and thus obtain, through the contributions made by various research groups, results that can be transferred to the health of citizens. This is to be achieved by stimulating the participation and collaboration of the different research bodies, universities and SNS facilities.

The functions of biomedical research promotion and co-ordination within the SNS are the responsibility of the Sectoral Initiative for Health Research. This strategic initiative fosters research activity in the SNS as the backbone of progress in this area. It does so through the promotion and co-ordination of research training and research careers for SNS personnel, by facilitating the secondment of specialists to research projects, assisting in the creation of biomedical research institutes and research networks for the joint use of scientific infrastructure and by undertaking research projects.

In 2008 the ***VI National Plan on Scientific Research, Development and Technological Innovation for the 2008-2011 period*** (R&D+i) came into effect. This plan calls for four priority action areas: generation of knowledge and capabilities; promotion of co-operation in R&D; sectoral development and technological innovation; and strategic actions. It is implemented through the following instrumental lines of action: human resources, projects, institutional reinforcement, infrastructures and system co-ordination. All of these activities are within the framework of the Strategic Action in Health (hereinafter AES, for its Spanish acronym), which aims to support proposals made in the areas of science and technology.

The general objective of the AES is to generate knowledge in order to protect the health and well-being of the citizenry, and to further develop the preventive, diagnostic, curative, rehabilitative and palliative aspects of illness, while at the same time strengthening the competitiveness and capabilities in R&D+i of the SNS and of companies involved in this sector.

Additionally, during this year, two specific strategies were put in place in the SNS, the ***Plan on Advanced Therapies in Regenerative Medicine*** and the ***Transversal Action in Cancer.*** Both seek the rapid incorporation of advances made in research to the diagnostic and therapeutic efforts made in relation to patients.

10.1 National Plan on Research (R&D+innovation)

The new National R&D+i Plan 2008-2011 has made some important changes in its structure and form of management. It is divided into four differentiated areas with six instrumental lines of action. One of them is the ***Strategic Action in Health (AES),*** which has the following objectives:

- To generate knowledge which will help preserve the health and well-being of citizens.
- To strengthen scientific innovation in biomedical and health subjects.
- To apply the progress made in research to SNS patients.

The AES is organised into five main areas or lines of work:

- Line 1. Molecular and cellular technologies applicable to human health.
- Line 2. Translational research on human health.
- Line 3. Promotion of research in public health, environmental and occupational health, dependence and health services, so as to improve the functional life of the country's population.
- Line 4. Promotion of pharmaceutical research on medicines and the development of pharmaceutical technologies. Research, development and innovation in pharmaceuticals for the treatment of the most relevant diseases.
- Line 5. Consolidation of the SNS as a platform for scientific and technical research in conjunction with industrial and technological research settings.

The more specific aims of the AES are as follows:

- To increase public and private investment in health R&D+i.
- To increase the number and quality of the human resources dedicated to health R&D+i.

– To increase the scientific production and the international dimension of health R&D+i.
– To increase the transfer of health knowledge and technology.

Lines of action within the AES

To meet the aforementioned objectives, the AES 2008 was structured into the following lines of action.

The ***first line of action*** consisted of:

– Promoting the training of researchers in biomedicine and health sciences, by supporting doctoral theses in the area of biomedical research.
– Promoting research training for health professionals who have completed specialised training.
– Promoting the training of SNS personnel in health technology or biomedical research that is of special interest to the system, by organising temporary stays at institutions located in Spain or abroad.
– Increasing the numbers of researchers in the SNS institutions, to enhance the potential of knowledge transferable to clinical practice, by hiring doctors or other professionals with a demonstrated background in biomedical and health science research, acquired in other Spanish or foreign institutions.

The intention is to overcome the clear separation that exists between biomedical research and clinical practice, increasing the critical mass of specialised doctors who are also researchers, a key element in translational research, both in terms of transferring knowledge to patients and of generating research hypotheses derived from care activity.

The autonomous communities that have requested and benefited the most from the programme are Madrid, Cataluña and Andalucía.

The ***second line of action*** focused on research projects themselves. This strategic action has its foundations in three subprogrammes:

– Research projects related to health.
– Non-commercial clinical research projects.
– Research projects related to health technology assessment and health services.

The first subprogramme was created to help achieve quality and stable research and avoid the fragmentation of research groups, stimulating the generation of critical mass in research. One of the objectives was to promote the financing of projects performed by health professionals who have become a part of the SNS in the last five years. The presentation of co-ordinated projects was also stimulated, to further scientific co-operation and achieve faster application to clinical practice. This action has served as an incentive

that encourages research staff who provide care services in the SNS to also participate in projects as primary researchers.

In the 2008 call for applications, 2042 applications were submitted, for a total of €263,658,000. Funding in the amount of €70,616,000 was given to 637 projects. Territorial distribution was similar to that of other years, with Cataluña, Madrid and Andalucía predominating (Table 10.1).

Table 10.1. Projects on R&D by AC. Call for applications 2008

	APPLICATIONS				APPROVALS			
		Main Researcher				Main Researcher		
	Projects	Male	Fem	Subsidy (thousands of Euros)	Projects	Male	Fem	Subsidy (thousands of Euros)
Andalucía	267	178	89	29,141	49	32	17	5,898
Aragón	48	31	17	4,355	11	7	4	881
Asturias	37	26	11	4,123	12	6	6	1,258
Baleares	35	22	13	3,136	11	8	3	866
Canarias	34	21	13	3,922	8	5	3	969
Cantabria	29	20	9	3,990	12	10	2	1,093
Castilla y León	69	42	27	11,100	17	11	6	1,745
Castilla-La Mancha	33	22	11	3,826	18	12	6	1,658
Cataluña	635	389	246	87,346	222	152	70	25,372
Comunidad Valenciana	139	89	50	18,460	39	22	17	2,950
Extremadura	20	14	6	2,672	5	4	1	330
Galicia	67	43	24	9,127	23	17	6	2,908
Madrid	470	278	192	64,177	166	106	60	20,478
Murcia	25	22	3	2,810	9	8	1	553
Navarra	53	32	21	6,695	20	13	7	2,581
País Vasco	78	50	28	8,573	14	8	6	1,049
Rioja	3	0	3	205	1	0	1	26
TOTAL	**2,042**	**1,279**	**763**	**263,658**	**637**	**421**	**216**	**70,616**

Source: Annual Report of the Health Research Fund 2008

As for the distribution of projects by the centre in which they are carried out, it is interesting to note that 59.03% of the applications were for projects to be carried out within the SNS, while 16.64% were for projects to be carried out through foundations and bodies associated with the SNS, 13.97% through universities and the rest in public research institutes.

The therapeutic areas that received the most requests were oncology (16.90%), followed by chronic illnesses and inflammation (16.25%) and neurological disorders/mental illness (14.54%).

The second subprogramme for the promotion of non-commercial clinical research was conceived to stimulate scientific research on medicines for human use, through the funding of independent projects undertaken by the pharmaceutical industry. The priority areas that have received special attention were:

- Orphan medical products and/or medicines of great health interest but little commercial interest.
- Clinical research and comparative studies on reducing resistance to antibiotics.
- Clinical research on medicines for special populations, particularly children.
- Clinical research, pharmacoepidemiological studies and clinical safety studies on authorised medicines in real conditions of use.
- Comparative studies on medicines with a high impact on public health and the SNS, with the intention of improving the efficiency of clinical practice.
- Cell therapy medicine and other advanced therapies such as gene therapy or tissue engineering.
- Clinical trials, including pharmacoepidemiological studies, aimed at determining the different populations with varying degrees of response, in efficacy and/or safety, to pharmaceuticals with clinical and therapeutic relevance in care activity.

Applications were submitted for a total of 303 projects and funding was given to 131, in the amount of €13,535,000. Most of the projects funded were in Cataluña, Madrid and Andalucía (Table 10.2).

A total of 89.31% of the applications were for projects to be carried out in facilities belonging to the SNS, while 16.87% were to be carried out in SNS foundations and the rest in universities.

Table 10.2. Independent clinical research projects, by AC. Call for applications 2008

	APPLICATIONS				APPROVALS			
		Main Researcher				Main Researcher		
	Projects	Male	Fem	Subsidy (thousands of Euros)	Projects	Male	Fem	Subsidy (thousands of Euros)
Andalucía	28	21	7	3,783	14	9	5	1,563
Aragón	3	1	2	246	1	0	1	29
Asturias	3	2	1	144	3	2	1	139
Baleares	5	4	1	210	1	1	0	2
Canarias	8	6	2	1,032	3	3	0	444
Cantabria	2	2	0	199	2	2	0	143
Castilla y León	4	3	1	357	2	1	1	106
Castilla-La Mancha	0	0	0	0	0	0	0	0
Cataluña	92	66	26	12,355	59	41	18	6,509
Comunidad Valenciana	14	11	3	778	7	5	2	372
Extremadura	1	0	1	23	0	0	0	0
Galicia	5	4	1	566	2	2	0	56
Madrid	46	35	11	7,262	29	21	8	3,380
Murcia	1	0	1	38	1	0	1	35
Navarra	13	11	2	2,232	5	4	1	739
País vasco	7	6	1	432	2	2	0	18
Rioja	0	0	0	0	0	0	0	0
TOTAL	**232**	**172**	**60**	**29,656**	**131**	**93**	**38**	**13,535**

Source: Annual Report of the Health Research Fund 2008

The health technology subprogramme was established to promote research in the medical technologies of interest to the SNS and in health services.

In 2008, a total of €36,546,000 were requested in order to carry out 592 projects. Of these, 209 projects received funding, for a total of €11,330,000.

Cataluña, Madrid and Andalucía were the autonomous communities with the highest number of projects seeking funding.

The bodies that submitted the most applications were SNS facilities (68.41%), SNS foundations (13.51%) and the rest were universities and public research institutes.

Table 10.3. Research projects on health technology evaluation and the health services. Applications submitted in 2008

	APPLICATIONS				APPROVALS			
		Main Researcher				Main Researcher		
	Projects	Male	Fem	Subsidy (thousands of Euros)	Projects	Male	Fem	Subsidy (thousands of Euros)
Andalucía	69	43	26	3,169	17	13	4	502
Aragón	23	16	7	829	13	9	4	422
Asturias	21	14	7	1,121	8	6	2	477
Baleares	10	5	5	762	3	2	1	100
Canarias	9	5	4	766	3	1	2	468
Cantabria	10	9	1	634	1	1	0	13
Castilla y León	11	8	3	458	4	3	1	167
Castilla-La Mancha	7	5	2	314	2	2	0	42
Cataluña	145	80	65	8,869	56	33	23	3,031
Comunidad Valenciana	43	32	11	2,599	17	16	1	775
Extremadura	9	6	3	1,105	1	1	0	10
Galicia	26	19	7	1,234	11	9	2	344
Madrid	141	85	56	8,499	43	26	17	1,844
Murcia	14	9	5	495	5	4	1	90
Navarra	10	8	2	394	4	4	0	109
País Vasco	27	18	9	1,691	9	6	3	407
Rioja	1	1	0	11	1	1	0	11
TOTAL	592	374	218	36,546	209	145	64	11,330

Source: Annual Report of the Health Research Fund 2008

The third line of action focused on promoting scientific and technological infrastructure, giving priority to the acquisition of infrastructure and equipment to be used jointly by the research teams working in SNS facilities. This helps make the best possible use of and enhance the productivity of scientific infrastructures, create new research capacities and contribute to the development of the SNS.

A total of 217 projects requested funding, for a total of € 35,459,000. Funding was given to 59 projects, in the amount of € 11,818,000. The funding went mainly to Cataluña, Madrid and the Comunidad Valenciana (Table 10.4).

Table 10.4. Funding for infrastructure. Applications submitted in 2008

	APPLICATIONS		APPROVALS	
	Actions	Subsidy (thousands of Euros)	Actions	Subsidy (thousands of Euros)
Andalucía	30	3,204	6	978
Aragón	12	1,725	2	453
Asturias	1	200	1	150
Baleares	12	751	1	108
Canarias	2	298	1	157
Cantabria	3	1,114	1	600
Castilla y León	7	1,081	2	299
Castilla-La Mancha	8	1,502	4	846
Cataluña	49	8,503	15	3,163
Comunidad Valenciana	12	2,460	6	1,184
Extremadura	14	1,128	1	469
Galicia	4	1,54	3	705
Madrid	32	7,012	10	1,680
Murcia	4	746	1	312
Navarra	4	766	1	210
País Vasco	23	3,915	4	502
Rioja				
TOTAL	217	35,459	59	11,818

Source: Memoria FIS 2008

The ***fourth line of action*** was aimed at strengthening stable co-operative research structures, through Networks of Biomedical Research Centres

(CIBER), Thematic Networks of Co-operative Research in Health (RETICS) and the Consortium to Promote Biomedical Research Networks (CAIBER).

CIBERs constitute a means to help develop and strengthen a stable structure of co-operative research in the SNS. One of the aims is to increase the critical mass and excellence of research work taking place in the system. The funding of these structures is a strategic action that will be in place for four years. In 2008 the funding of these structures was distributed as follows (Table 10.5).

Table 10.5. Funding for CIBERs

CIBER	Groups	Researchers	Amount (Euros)
Bioengineering, biomaterials and nanomedicine	55	544	5,748,600
Epidemiology and public health	55	547	4,466,000
Physiology of obesity and nutrition	32	288	4,030,400
Liver and digestive diseases	50	432	6,305,200
Neurodegenerative diseases	64	493	6,861,800
Respiratory diseases	35	309	4,466,000
Rare diseases	64	609	7,612,000
Diabetes and metabolic diseases	32	265	4,659,300
Mental health	26	244	3,612,000
TOTAL	413	3,731	47,761,300

Source: Annual Report of the Health Research Fund 2008

The RETICS focus on planned research and their aim is to generate new knowledge to contribute to the scientific grounds underlying the National Plan for Scientific Research, Development and Innovation and to position Spain in the EU's European Research Area. In 2008 the funding of these structures was as follows (Table 10.6).

Table 10.6. Funding for RETICS

Name of network	Groups	Researchers	Amount (Euros)
Addiction disorder network	1	7	40,710.60
Cardiac insufficiency network (REDINSCOR)	7	19	48,300.00
AIDS network	1	11	40,710.60
Spanish infectious pathology network (REIPI)	2	14	68,858.14
HERACLES network: genetic and environmental determinants in vascular dysfunction, hypertension and ischaemic heart disease	0	0	0
Cell therapy network	1	15	34,716.57
Network on co-operative research on ageing and fragility (RETICEF)	1	14	40,710.60
Network on risk factors, evolution and treatment of cardiovascular disease and its mechanisms (RECAVA)	2	27	75,427.27
Network for research on kidney diseases (REDINREN)	2	15	58,643.88
Network for research in prevention activities and health promotion in primary care (REDIAP)	2	28	63,439.11
Thematic network for co-operative cancer research	3	24	110,143.74
Tropical disease network: from genomics to control (RICET)	1	5	34,716.57
Neurovascular network (RENEVAS)	2	20	69,433.14
Network on healthy eating for chronic disease prevention in primary care (PREDIMED)	1	6	34,716.57
Spanish multiple sclerosis network (REEM)	3	19	104,149.71
Ocular pathology of ageing, visual quality and quality of life	2	13	69,433.14
Network of research in adverse reactions to allergens and to pharmaceuticals (RIRAAF)	1	6	34,716.57
Thematic network on co-operative research on computational biomedicine (RETICEF)	1	15	34,716.57
Network for maternal and child health and development	13	105	700,379.62
Network for research in inflammation and rheumatic diseases	22	165	962,543.79
Total			2,626,466.19

Source: Annual Report of the Health Research Fund 2008

CAIBER is the term used for central units of clinical research and clinical trials on patients, mainly for non-commercial purposes, that belong to the aforementioned consortium. The funding goes mostly to establishing CAIBERs in SNS facilities or institutions that provide care services or in SNS facilities that manage their activities through foundations created under private law.

In 2008, these structures received a total of €10,000,000, distributed as follows (Table 10.7).

Table 10.7. Distribution of CAIBER system applications and approvals. Call for applications 2008

	Applications	Approvals
Andalucía	7	4
Aragón	1	1
Asturias	1	1
Baleares	1	1
Canarias	4	1
Cantabria	1	1
Castilla y León	3	1
Castilla-La Mancha	5	1
Cataluña	13	9
Comunidad Valenciana	4	2
Extremadura	1	1
Galicia	5	2
Madrid	11	9
Murcia	2	1
Navarra	2	1
País Vasco	4	4
Rioja		
TOTAL	65	40

Source: Annual Report of the Health Research Fund 2008

The ***fifth line of action*** funded complementary reinforcement actions.

One of the specific programmes aims to make the SNS research and technological setting more dynamic, to stimulate public and private co-

operation in singular actions related to clinical praxis, in research on medicines for human use, actions pursuing innovation, development of health technologies and the creation of Health Research Institutes in the SNS.
Twelve projects received funding, for a total amount of €33,437,000. Madrid was the autonomous community with the highest number of projects receiving funding, while Cataluña received the largest amount of money (Table 10.8).

Table 10.8. Actions to make the SNS research and technological setting more dynamic. Call for applications 2008

	APPLICATIONS				APPROVALS			
		Main Researcher				Main Researcher		
	Projects	Male	Fem	Subsidy (Euros)	Projects	Male	Fem	Subsidy (Euros)
Andalucía	1	0	1	200	1	1	0	6,578
Aragón	1	1	0	8,771	4	3	1	14,257
Cataluña	5	4	1	19,797	4	3	1	14,257
Madrid	8	4	4	34,141	6	4	2	11,970
Navarra	1	1	0	842	1	1	0	632
TOTAL	16	10	6	63,750	16	12	4	33,437

Source: Annual Report of the Health Research Fund 2008

Two other activities within this line have been training programmes on evidence-based medicine and health technology assessment, and a programme for specific actions in the area of health, sports and physical activity.

Other lines of action

In addition to AES financing, other sources of funding for clinical research also exist, such as the autonomous communities.

European programmes are another main source of financing, specifically through the Seventh RTD Framework Programme, which is the main tool used by the European Union to fund research. This is a multi-annual programme for research and technological development, which will create an internal science and technology market, promoting scientific quality, competitiveness and innovation.

Finally, also worth noting is the financing of clinical research projects through the private sector, a form of co-operation that is becoming increasingly common.

Table 10.9. Distribution of CAIBER system funds. Call for applications 2008

	European	Regional	National Plan	Private
Andalucía	7	202	39	NA
Aragón	0	31	20	3
Asturias	NA	NA	NA	NA
Baleares	2	6	21,5	9
Canarias	1	38	9	19
Cantabria	1	10	10	1
Castilla y León	NA	242	645	NA
Castilla-La Mancha	1	54	18	6
Cataluña	53	130		31
Comunidad Valenciana	NA	NA	NA	NA
Extremadura	1	9	7	0
Galicia	0	29	27	12
Madrid	14	120	290	204
Murcia	14	11	21	17
Navarra	5	27	17	3
País Vasco	2	82	26	25
Rioja	2	2	9	7

Source: Annual Report of the Health Research Fund 2008

10.2 Research centres and structures

In recent years there has been a notable increase in ***research focusing on social progress and economic development***, and in consequence greater importance is being attached to the health care and social care aspects of ***biomedical and health research***. This is one reason that health research has been promoted, so as to guarantee that research activity and the transfer of its results into clinical practice takes place in good conditions, on sound

scientific grounds and with respect at all times for the rights of patients and researchers.

The objective is to ensure that basic and clinical research initiatives are undertaken at all levels of the SNS, to make the most of the corpus of knowledge and opportunities for research and innovation that exist in both hospitals and primary care.

To this end, the Ministry of Health and Social Policy has increased the funds allocated to health research, defining priority action areas, as discussed above, and adopting a series of measures such as reinforcing translational research, promoting new research technologies and methodologies, and increasing the critical mass of researchers in the SNS, especially by supporting the careers of young researchers.

One of the tactics used to heighten this activity is to stimulate the creation of ***Health Research Institutes*** as basic elements upon which to build network structures of a higher order. These networks, besides enhancing the quality of the research activity, contribute to the territorial cohesion of the SNS research framework.

In these institutes it is vital that there be a high degree of co-ordination between basic research and clinical research. Such co-ordination is necessary to position Spanish biomedical research on the international playing field, and to facilitate the positive repercussions that research should have on the health care provided to citizens, by incorporating scientific advances into clinical practice as quickly as possible.

One of the main features of these centres is that they promote the integration of the basic, clinical and public health branches of research as a unit, reinforcing the concept of hospitals as research centres. This integration makes it possible to shorten the period of time between the production of new knowledge and its transfer and real application to medical practice.

Among the other stable and innovative structures created in recent years to enhance monographic research on a specific pathology or health problem are the ***Networks of Biomedical Research Centres (CIBER)***. These networks are comprised of different research groups that have a common area of interest, although they are not physically close to each other and can belong to different administrations, institutions and autonomous communities, within the public or the private sector. Co-ordination among various groups allows them to pursue scientific objectives that would be difficult to take on in a more restricted context.

The networks give rise to large translational research centres that are multi-disciplinary and multi-institutional and encompass basic, clinical and populational research. They work together on a common research programme focusing on certain pathologies the prevalence of which makes them relevant to the SNS or which, due to their social repercussion, are

considered to be of strategic importance. The CIBER are the product of the strategy to enhance research co-ordination, heightening the synergies existing among different groups of biomedical research that work in these areas.

Another important structure is the Thematic Networks of Co-operative Research in Health (RETICS).

These networks are organisational structures involving a variable set of multidisciplinary biomedical research groups and centres, from different public administrations or the private sector, and belonging to a minimum of four autonomous communities, which, through their association with the Carlos III Health Institute, work jointly on co-operative research projects of interest to all.

Also to be noted is the formation of the ***Consortium to Support Biomedical Research in Networks (CAIBER)***, one of the subprogrammes called for in the Strategic Action in Health (AES).

The primary aim of the CAIBER is to strengthen the structure of the units comprising it, with a view to promoting the health and well-being of society. This is being achieved through the development of a network with capacity to perform clinical trials that have been funded and prioritised. Another aim is to give greater support to participation in clinical research, especially by groups that currently do not have the resources to solve problems related to design or development.

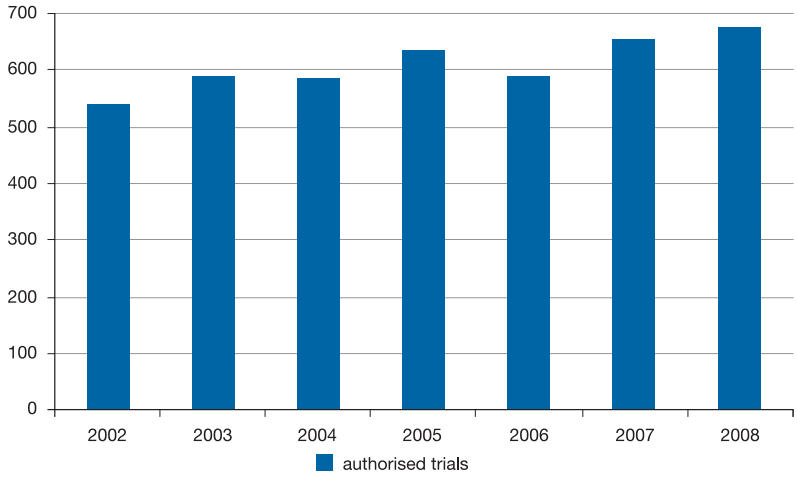
It is important to remember that basic research is essential for all health sectors and lays the foundations for a higher level of education and for the recruitment of new researchers. The centres performing this type of research are the cornerstone of the network or consortium structures described above. These institutions also facilitate the recruitment of new researchers, who in turn generate new knowledge and contribute to its dissemination to industry and society.

10.3 Research projects

Having analysed the type of research structures currently in place in Spain, the research projects performed in the SNS will now be described, noting the type of project, the methodology used or the type of product being researched.

One of the large blocks of research to be examined is the one comprised of clinical trials on pharmaceuticals for human use. In 2008 a total of 675 clinical trials were authorised, of which 42.8% were of the Phase I or Phase II type. In 24.8% of the Phase I clinical trials, the objective was to demonstrate bioequivalence.

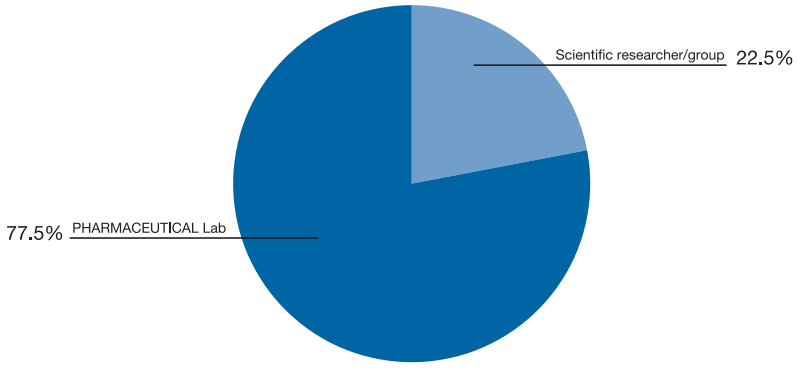
Figure 10.1. Clinical trials involving pharmaceuticals for human use 2002-2008



Source: Annual Report of the Spanish Agency of Medicines and Health Products (AEMPS) 2008

Most of the clinical trials were sponsored by a pharmaceutical company, while 22.5% were sponsored by a scientific society or researcher.

Figure 10.2. Sponsors of clinical trials in 2008

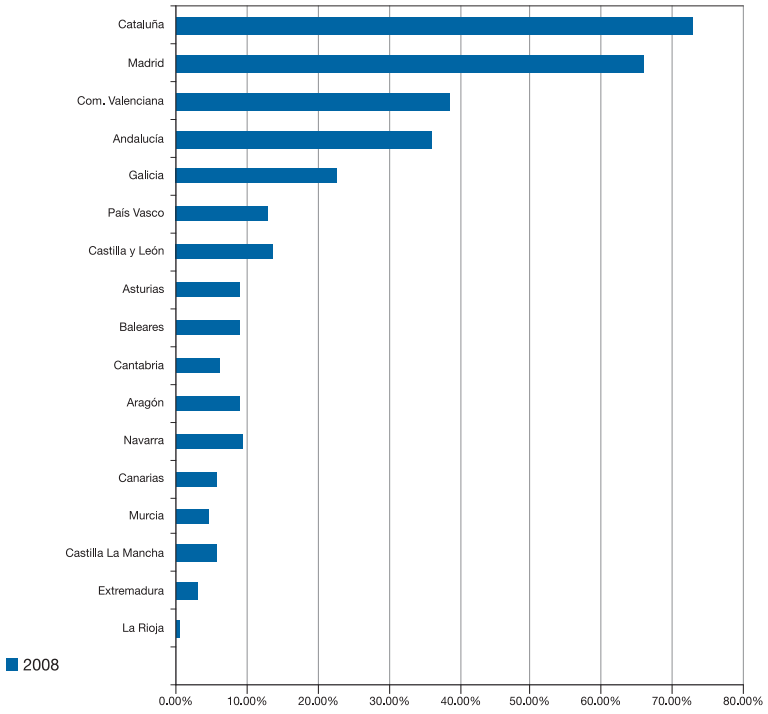


Source: AEMPS 2008 Annual Report

In 95.7% of the clinical trials, the target population was adults, in 74% of the cases it was elderly people and only 9.6% targeted children. In 90.6% of these trials, the participants included both men and women.

Regarding the number and location of the participating centres, a large majority of the trials are multicentre trials with the participation, in most cases, of centres from more than one autonomous community. In the case of single-centre trials, 59% were sponsored by a researcher or scientific society.

Figure 10.3. Percentage of participation of the AC in clinical trials



Source: AEMPS 2008 Annual Report

Epidemiological studies are another type of research carried out in 2008 in the autonomous communities. Also worth noting are the research projects performed with cells, tissues or organs, under Royal Decree 1301/06 and its main applications, and the clinical research studies authorised in 2008 by the autonomous communities, under Law 14/2007.

11 Innovation

Introduction

Innovation can be defined as "the art of knowing how to apply, under certain conditions and to achieve a particular purpose, the sciences, techniques and other fundamental rules that make it possible to conceive of and obtain new products or services, processes, management methods and information systems in the company."[1] Distinctions can be drawn between the following:

- Technological innovation, which refers to the changes made in products, services and processes.
- Employment innovation, which looks for new solutions to unemployment problems while safeguarding corporate efficiency.
- Innovation in management methods used in administration, commercial and financial management and the information systems related to the productive activity, among others.

Some authors believe that demand pressure is a decisive factor in innovation. For example, in the Spanish health care system it seems that citizen and patient demands for greater accessibility are at the root of measures such as the centralised call centre, Internet and cell phone access, telemedicine, improved case-resolution capacity in one day and electronic prescription and authorisation.

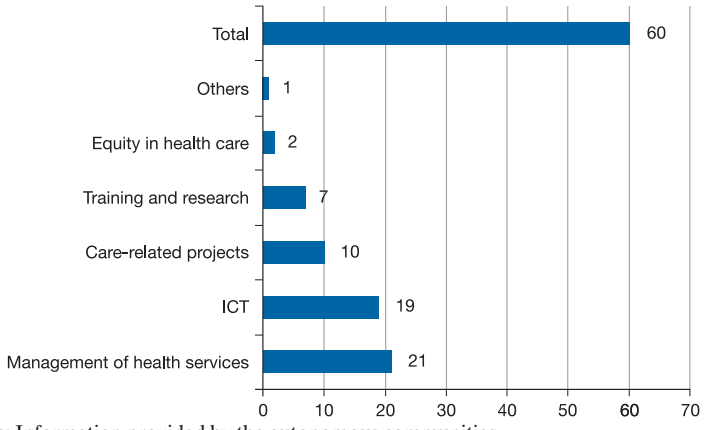
In the SNS, it is now very common to see innovation in management methods, especially the implementation of process management. Improving processes is a new approach that blends information and communication technology (ICT) with human resource management and can dramatically affect an organisation's performance. To bring this about, processes must be designed to effectively implement the strategy, which is based on motivated workers who make use of ICT. Some examples of innovation based on process management can be found in Cantabria, which has produced its own process maps; in Navarra, with its Technological-Medical Centre project; in Castilla y León and Galicia, which have put in place management systems based on integrated care processes (the former in the area of mental health, the latter in paediatrics and laboratory activity); and in the Comunidad Valenciana, which has developed a case management system for two chronic conditions.

1 Morcillo, P.: "Dirección estratégica de la tecnología e innovación" Civitas. Madrid, 1997

11.1 Innovation in the SNS

For this Annual Report autonomous communities were asked to furnish information on no more than three innovative experiences, indicating the main characteristics, the target population, the methods used and the primary results of each of them (Figure 11.1).

Figure 11.1. Number of experiences in 2008, by area of innovation



Source: Information provided by the autonomous communities

Almost all of the autonomous communities have put innovative measures in place in the area of health service management and in the application of ICT (Table 11.1 and Table 11.2).

Table 11.1. Innovative experiences of the autonomous communities in the management of health care services

	EXPERIENCE
Andalucía	Proposed legislation on the rights and guarantees of citizens in the final phase of life Pharmaceutical benefits provided free of charge to children under the age of one
Aragón	Management of the benefits package offered by the Regional Health System Charter of Commitments to citizens
Canarias	Regional register of health care professionals
Cantabria	Strategic Plan 2008-2011, process mapping and adaptation to the ISO 9001:2008 standard
Castilla y León	Plan on accrediting and recognising excellence in Primary Care Teams Strategy to increase energy efficiency in the care facilities of the region Self-management programme: pilot study in six Primary Care Teams
Cataluña	Support for the network of hospital innovation promoters in various hospitals in Cataluña Document on the conceptual framework of innovation (product, processes and organisation) in Health Centres
Comunidad Valenciana	Innovation in care provided to chronic conditions in the "La Fe" health district of Valencia – case management for patients with chronic conditions
Galicia	Reorganisation of hospital emergency services Home hospital: redefinition of criteria to ensure equal access and expansion of the network to the entire AC Integrated care processes in paediatric care Definition of integrated care process in the laboratory area
Madrid	Central Diagnostic Radiology Unit
Navarra	Technological-Medical Centre of Navarra: complex comprised of technology centre that performs diagnostic procedures with high resolution capacity and the attached specialised care centre
País Vasco	Health Impact Assessment: promotion of the "Health in all Policies" strategy
Melilla	Guidelines for the evacuation of patients from Melilla
Ceuta	Survey of professionals about patient safety

Notes: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

Table 11.2. Innovative experiences of the autonomous communities in information and communication technology (ICT)

	EXPERIENCE
Andalucía	Telephone interpretation service
Baleares	Electronic prescription
Castilla-La Mancha	Telemedicine: digital transmission of medical imaging to health centres Integrated electronic health records Electronic prescription Electronic authorisation of prescriptions Participation in EpSOS project –design of common electronic health record for Europe Project that enables hospitalised patients to choose their daily menu electronically
Cataluña	System that allows for telematic intervention in neuropsychology Specific support for research proposals presented to European projects: Dermacare, Open eHealth, Child Arrhythmias Support for telemedicine networks (for stroke, neonatal retinopathy and diabetic retinopathy)
Comunidad Valenciana	Telemedicine techniques in the Valencia health district of Arnau de Vilanova- Lliria: teledermatology
Navarra	Zahorí project: computer tool that enables conceptual searches for identification of and access to Primary and Specialised Care health records, for research purposes RFID patient identification or similar system in health care facilities
País Vasco	Kirozainbide.Hospital Galdakao-Usansolo: wiki site created by the surgical nursing team Clinical safety in surgery. Hospital Santiago: wireless technology, RFID, Bluetooth
Rioja	Implementation of electronic health records Advanced Telemedicine Project of Rioja
Ceuta	Specific identification system for high-risk hospital patients

Notes: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities and INGESA

Innovations in care-related projects, in research and development and in efforts to improve equity are also among the activities carried out by the autonomous communities (Table 11.3 and Table 11.4).

Table 11.3. Innovative experiences of the autonomous communities in care-related projects

	EXPERIENCE
Baleares	Care process for Acute Coronary Syndrome with ST segment elevation
Canarias	Project to improve response to mental health disorders in Primary Care Project on Primary and Specialised Care co-ordination in cardiovascular prevention
Castilla y León	Integrated social health care process for people with mental health disorders
Castilla-La Mancha	Programme on care for hospitalised celiac patients
Cataluña	Strategic plan on sexual and reproductive health care Development of a radio frequency device for the treatment of liver injury Specific codes for treating stroke and heart disease
Galicia	Regional strategy on cancer
País Vasco	"A small challenge" project at the Psychiatric Hospital of Álava, a therapeutic-rehabilitative tool for patients with schizophrenia

Notes: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities

Table 11.4. Innovative experiences of the autonomous communities in training and research, equity and miscellaneous

	EXPERIENCE
Aragón	Aragón Health Consortium: improving geographical accessibility and general access to quality health care
Cantabria	Virtual Hospital of Valdecilla – training through medical-surgical simulation Biomedical research through the Marqués de Valdecilla Institute of Training and Research Clinical Trials Office - National Programme to Support Clinical Research (CAIBER)
Cataluña	Seminar on the preparation of proposals for the Seventh Framework Programme of the EU Course on the valuation of research, technological transfer and marketing
Madrid	Clinical Research in Primary Care Group Intervention Team for the excluded population in Primary Health Care Area 1
Navarra	Campaign on Road Safety in the occupational setting
Rioja	Biomedical Research Centre of Rioja.

Notes: Includes the information provided before final reporting date for inclusion in this document
Source: Reports from the autonomous communities

Andalucía

Andalucía has focused its efforts in innovation on the area of patient rights. Of special importance is the proposed legislation on citizen rights and guarantees during the death process, which aims to preserve the autonomy of patients and respect their decisions in the final stage of life. The purpose of the law is to provide legal certainty to health professionals and to support clinical practices which alleviate suffering during the death process.

As a means to support natality and help families in the region, pharmaceutical prescriptions are now available free of charge for children under the age of one. Another innovative experience in Andalucía is teleinterpretation in 46 languages, to reduce language barriers in the communication between health professionals and patients.

Aragón

Aragón has centred its efforts in innovation on active management of the benefits package for citizens, by incorporating new services that have been proven safe and effective and by modifying or eliminating ones that are outdated either because of lack of evidence or because they are not relevant in the health care reality of today.

The Aragón Health Consortium, an entity made up of several city councils, an industrial accident insurance mutual and the regional Ministry of Health, has made it possible to improve geographical access and service quality and heighten citizen participation. Improvements in equity are achieved through a care network that features a high degree of involvement by the local governments in areas with highly dispersed population. The project makes it possible to integrate all the public resources and it facilitates service provision by incorporating technological advances.

The Charter of Commitments project has led to the creation of a single, unified document designed to guarantee the rights of users throughout Aragón. The charter details the guiding principals of each commitment, which are divided into four broad sections: information and respect for autonomous decision-making by patients, access to the public health care system, quality care and citizen participation.

Baleares

In Baleares, an integrated care plan involving the emergency response service (061), public hospitals, primary care and private hospitals has improved the co-ordination of the care given to patients suffering Acute Coronary Syndrome with ST segment elevation. This process is accompanied by a computerised central register that makes it possible to monitor and evaluate the care given, and also to generate processes for ongoing improvement. This

register plays a key role in the quality plan for care provision in cases of ischaemic heart disease.

Electronic prescribing is quite well developed in this community and is an example of how ICT can bring about more effective relations between different professionals. However, the true innovation of e-prescribing is found in the modification of the care processes used with patients.

Canarias

This autonomous community has emphasised innovation in care-related projects targeting highly prevalent conditions such as mental illness and cardiovascular disease, through integration and co-ordination of the primary and specialised care levels. It has put in place a strategy which includes, among other actions, primary and specialised care working groups, the creation of protocols and manuals, the ongoing training of professionals, debate forums and the designation of individuals to co-ordinate innovation efforts in the health care centres.

To improve management efficiency, Canarias has created a computerised register of health care professionals. The register is a single instrument that contains all the relevant data about the professionals available in the autonomous community and is also useful in furnishing the health care authorities with information pertinent to human resource planning.

Cantabria

Cantabria's endeavours in innovation have been aimed primarily at training and research activities, in an effort to increase knowledge transfer and thus bring about quality improvements. To this end, it has developed a number of structures that provide support to both ongoing professional training and research. The Virtual Hospital of Valdecilla is a multidisciplinary educational centre that has become a national and international point of reference in the new methods used for medical-surgical training and research for educational purposes. The Marqués de Valdecilla Research Institute supports and organises biomedical research, and is currently in the process of accrediting the excellence of its research groups.

The Clinical Trials Office of Cantabria, included in the national programme for clinical research (CAIBER), supports and promotes both commercial and non-commercial clinical trials on pharmacological and non-pharmacological interventions. In addition, process maps have been developed in an effort to improve care quality through new organisational formulas, and electronic access to the health care administration is now available to citizens.

Castilla y León

Castilla y León has put in place initiatives aimed at care quality improvement and the self-assessment culture is being extended through the use of the European Framework for Quality Management (EFQM) in all of the community's Health Centres. An interesting innovation in management is the self-management programme which has been piloted in various primary care teams. This community is also engaged in innovative projects that reflect environmental concerns, as evidenced by efforts to increase energy efficiency and use renewable energies. Investments have been made in renewable energy sources for health care facilities. In addition, Castilla y León has made a priority of innovation in care-related projects for patients with serious mental illness. An integrated process management methodology has been introduced and is co-ordinated with the social services (social health care).

Castilla-La Mancha

Castilla-La Mancha is promoting new technologies in health care information, with the primary objective of improving care quality. This endeavour has taken concrete form in the development of areas such as telemedicine, integrated electronic health records, electronic prescribing and authorisation. The National Hospital for Paraplegics in Toledo has piloted a project based on RFID technology (radio frequency identification) which enables hospitalised patients, even those with very limited mobility, to choose their daily menu electronically.

Priority has also been given to a programme on hospital care for celiac patients, featuring a comprehensive and multidisciplinary approach. The objective is to provide information about the disease to patients, health care professionals involved in care provision and all the personnel who prepare and distribute food in the hospital. The programme is comprised of a plan on receiving patients with celiac disease, the preparation of a guide for celiac patients, the training of kitchen staff and finally a training programme for nurses.

Cataluña

The programme to promote innovation in the hospitals of Cataluña provides the conceptual framework for innovation, whether it be in products, in processes or in organisation. The project began in 2005 and specific innovation units have been created in various hospitals since then. Many of these units focus on innovation in products, such as medical technology. For example, specific codes for treating stroke and heart disease have been developed to reduce mortality from diseases of the circulatory system, the leading cause of death in Cataluña. The strategic plan on sexual and reproductive health is another innovative care-related project. This plan gives

a new focus to health care provision, creating a single functional team, with the aim of guaranteeing that health services are adapted to the needs generated by recent demographic, social and cultural changes, so as to be able to offer comprehensive and integrated health care.

Comunidad Valenciana

Valencia has developed a store-and-forward telemedicine system applied to dermatology. The project was piloted in a highly-populated basic health zone; the costs were analysed (direct, indirect, tangible and intangible), and after several months of testing, it was extended to other basic health zones. Also, teledermatology is being applied in a nursing support unit for the treatment and monitoring of patients with chronic ulcers and lesions.

In the area of health care management, a case management model for the care of chronic conditions has been put into operation. The aim is to ensure that the care provided is proactive, appropriate, safe and continuous, by enhancing co-ordination among care levels, social resources and the community. For this project, a management programme for chronic patients was designed and piloted. It includes the following features: identification and stratification of population to be included, preparation of guides and protocols, design of specific educational programmes, introduction and promotion of ICT (through the development of a multiplatform technology solution that allows for regular patient monitoring through cell phones, landline phones and Internet). Resources and incentives have been allocated to achieve this aim, and ongoing evaluation and quality improvement elements have also been incorporated.

Galicia

Galicia is focusing its innovation efforts on the areas of health care management and the improvement of care processes. Especially significant is the strategy applied to cancer, which uses a multidisciplinary, integrated approach and assumes the commitment to provide appropriate care that is timely and available in close proximity, for the most prevalent neoplasms. Modifications are being made in the organisation of key areas, such as hospital emergency services, introducing tools that improve care quality and access. Home hospital has also been reorganised to improve access and availability to the entire community.

In addition, Galicia is reviewing the organisation of paediatric care throughout the community, at both the primary and specialised care levels. It is redistributing resources in order to reduce inequalities in access and in the workloads of the professionals. Furthermore, with care quality criteria in mind, an integrated laboratory process has been drawn up to ensure quality in the phases of preanalysis, analysis and postanalysis.

Madrid

The Community of Madrid has created a Central Diagnostic Radiology Unit to serve six hospitals in Madrid. With ICT it is possible to produce images that can be stored immediately, distributed through a high-speed communication network and accessed from any medical consultation or radiodiagnostics site. This system allows radiological studies to be made of patients from other health care facilities in Madrid, reports can be transmitted to primary care centres and second opinion reports are easier to formulate.

The Community of Madrid has also organised a team to work with populations in situations of social exclusion, to help reduce barriers to health care faced by people living in situations of extreme risk and inequality. The team is mobile and works closely with other bodies and institutions to achieve the normalisation and integration of these populations. The idea is to establish an alternative means to access health care services, to help break the poverty-disease link found in populations with morbidity different from that of the general population. These populations have a high prevalence of infectious disease but very rarely make use of public services through the usual means of access.

The third line of innovation is in the area of clinical research in primary care. An advisory panel of experts has been created for the entire region, in order to harmonise the evaluation and feasibility criteria of all the biomedical and clinical research that is to be undertaken in one or more areas of primary care. The group is comprised of the heads of research designated by each primary care management structure, co-ordinated by a professional appointed by the Laín Entralgo Agency.

Navarra

Navarra is focusing its innovative measures on ICT. Newly-developed computer programmes make it possible to conduct conceptual searches and extract the essence or underlying concept of clinical records, which greatly facilitates the task of researchers. In addition, RFID is used for positive patient identification in the urgent care unit of the Virgen del Camino Hospital. In the area of health care management and to improve organisation, Navarra boasts a new medical centre with high case-resolution capacity, integrating human and technological resources to ensure that health care meets the expectations of citizens. This health centre has a range of services expressed by processes and offers only ambulatory activities, such as specialist consultations, special explorations and outpatient surgery. Care is process-based and the objectives are obtained in an expedited fashion.

Another innovative project in Navarra is the one carried out in collaboration with the Navarra Institute of Occupational Health. Its purpose is to reduce the number of work-related road accidents that take place on

the way to and from work and also during working hours. It consists of a campaign on road safety in the social-occupational sphere, with the participation of the General Directorate of Labour and the Prevention of Occupational Hazards. The campaign targets mainly local governments, municipal service providers, companies with a high degree of road activity, and, to a lesser degree, companies in the road transport sector. It also targets the civil servants and other regional government employees.

País Vasco

This autonomous community has introduced the Health Impact Assessment (HIA) as a way to mainstream the perspective of health and social inequalities in health into all policies carried out by the autonomous community, even those not directly related to health. Following an initial experience and assessment in a neighbourhood regeneration project in Bilbao, a tool for screening non-health-related interventions was developed to help identify which should be subject to an HIA because of their potential impact on the health of the population.

Another innovative initiative, in the area of information technologies, is the wiki site developed entirely by the surgical nursing staff of the Galdakao-Usansolo Hospital. This tool represents an alternative to traditional teaching methods for nurses who wish to update or expand their knowledge and it is accessible from any point of the organisation's intranet.

With ICT support (such as information systems, computer tools, RFID and Bluetooth), a clinical safety project has been developed in the surgery unit of Santiago Hospital. Its purpose is to eliminate potential risks and reduce and protect against the unavoidable risks. Finally, the psychiatric hospital of Álava has put in place a novel therapeutic/rehabilitation tool which, in the form of a game, works to improve the quality of life of patients with schizophrenia or another serious mental illness.

Rioja

In Rioja the most relevant experiences in innovation are the introduction of various telemedicine processes, the consolidation of the electronic health record system in the region's hospitals and the founding of the Biomedical Research Centre of Rioja.

The telemedicine projects now in progress are teleophthalmology, teledermatology and telecardiology. The electronic health record project is now consolidated at both care levels and allows clinical information to be shared by all the health professionals involved, from any point in the care network.

The Biomedical Research Centre of Rioja conducts research in oncology, infectious diseases, AIDS/HIV, neurodegenerative diseases and molecular microbiology.

INGESA (Ceuta and Melilla)

The National Institute of Health Management (INGESA), which is the body responsible for providing health care services in the cities of Ceuta and Melilla, has also implemented innovative new programmes.

In Melilla guidelines have been prepared on the evacuation of patients, something especially relevant in this city located in North Africa, where evacuation is sometimes necessary in order to obtain specific health care services not available locally. The guidelines are useful for all health care professionals, and their purpose is to reduce the time necessary for the transfer and to optimise resources with respect to the clinical indications.

In Ceuta new bracelets for positive patient identification have been introduced in hospitals. Evaluation revealed that the degree of introduction was high, albeit variable depending on the service. Also in Ceuta a survey was conducted on health professionals, selected at random, to find out their opinion, knowledge and actions related to patient safety. The participating professionals gave safety in care processes a rating of 6.37 on a scale of 10. Among the professionals surveyed, 56% believe the patient safety level to be good and most have not reported any adverse events in 2007.

Conclusions

The conclusion to be drawn from foregoing summary is that innovation has become one of the main priorities of the SNS. The most frequent experiences in innovation are related to citizen rights and to health service management methods, and all of them make use of ICT.

Some initiatives have touched upon areas not often addressed before now, such as the impact that non-health policies, such as those related to housing, transport and employment, can have on the health of the population. Others take environmental concerns into consideration, or utilise renewable energy sources.

Appendix: Abbreviations and acronyms

A	
AAR	Average Annual Rate (of change)
AC	Autonomous community
ADI	Acceptable Daily Intakes
AES	Acción Estratégica en Salud (Strategic Health Action)
ALDAGUA	Sistema de Información Ejecutiva de Agua de Consumo (Executive Drinking Water Information System)
ATC	Anatomic, Therapeutic, Chemical
B	
BIFAP	Base de datos para la Investigación Farmacoepidemiológica en Atención Primaria (Database for Pharmacoepidemiological Research in Primary Care)
BIOBADASER	RegistroEspañol de Acontecimientos Adversos de Terapias Biológicas en Enfermedades Reumáticas (Spanish Registry of Adverse Events in Biological Therapies against Rheumatic Diseases)
C	
CAIBER	Consorcio de Apoyo a la Investigación Biomédica en Red (Consortium to Promote Biomedical Research Networks)
CAT	Computerised Axial Tomography
CC-CEIC	Centro Coordinador de Comités Éticos de Investigación Clínica (Co-ordinating Centre of Clinical Research Ethics Committees)
CCST	Comité Científico para la Seguridad Transfusional (Scientific Committee for Transfusion Safety)
CCU	Critical Care Unit
CEI	Comité de Investigación Clínica (Clinical Research Committee)
CIBER	Centros de Investigación Biomédica en Red (Networks of Biomedical Research Centres)
CJE	Consejo de la Juventud de España (Youth Council of Spain)
COPD	Chronic Obstructive Pulmonary Disease
CROI	Conference on Retroviruses and Opportunistic Infections
CSUR-SNS	Centros, Servicios y Unidades de Referencia del SNS (Reference Facilities, Services and Units of the SNS)

D	
DG	Directorate General
DRG	Diagnosis Related Groups

E	
EBA	Entidad De Base Asociativa (self-managed associative body of primary care professionals)
ECB	European Chemicals Bureau
ECHA	European Chemicals Agency
EESCRI	Estudio Estadístico de Establecimientos con Régimen de Internado (Statistical Study on Inpatient Medical Facilities)
EFQM	European Foundation for Quality Management
EGSP	Estadístico Gasto Sanitario Público (Public Expenditure on Health Statistical Report)
EHR-SNS	Electronic Health Records in the SNS
EMTOC	Electronic Model Tobocco Control
epSOS	European Patient- Smart Open Services
ESAC	European Surveillance of Antimicrobial Consumption
ESTHER	Ensemble pour une Solidarité Therapèutique Hospitalière en Reseau (Network for Therapeutic Solidarity in Hospitals)
ETOP	Elective Termination of Pregnancy

F	
FCTC	Framework Convention on Tobacco Control
FIPSE	Fundación para la Investigación y la Prevención del SIDA en España (Foundation for AIDS Research and Prevention in Spain)
FUNDESALUD	Fundación para la Formación y la Investigación de los Profesionales de la Salud de Extremadura (Foundation for the training and research of health professionals in Extremadura)

G	
GDP	Gross Domestic Product
GESIDA	Grupo de Estudios del Síndrome de Inmunodeficiencia Adquirida (AIDS Studies Group)
GESMA	Gestión Sanitaria de Mallorca (Health Management of Mallorca)
GM	Generic Medicines

H	
HAART	Highly Active Antiretroviral Therapy
HBSC	Health Behaviour In School-Aged Children

HCF	Health Cohesion Fund
HE	Health Expenditure
HIA	Health Impact Assessment
HLE	Healthy Life Expectancy
HRF	Health Research Fund

I

ICT	Information and Communication Technology
IHC	Individual Health Card
ISO	International Standards Organisation
IVDU	Intravenous Drug Users

L

LE	Life Expectancy

M

MBDS	Minimum Basic Data Set
MSM	Men who have Sex with Men

N

NAYADE	Sistema de Información Nacional de Agua de Baño (National Information System on Water for Bathing)
NEP	Needle Exchange Programme
NMR	Nuclear Medicine Resonance

O

OECD	Organisation for Economic Co-operation and Development
OST	Orthopaedic Surgery and Traumatology

R

RD	Royal Decree
REACH	Registration, Evaluation, Authorisation And Restriction Of Chemicals
RETICS	Redes Temáticas de Investigación Cooperativa en Salud (Thematic Networks of Co-operative Research in Health)
RFID	Radio Frequency Identification
RTD	Research and Technological Development

S

SENECA	
SGIP	Secretaría General de Instituciones Penitenciarias (General Secretariat of Penitentiary Institutions)

SHA	System of Health Accounts
SIAP	Sistema de Información de Atención Primaria (Primary Care Information System)
SINAC	Sistema de Información Nacional de Agua de Consumo (National Information System on Drinking Water)
SIPES	Sistema de Información en Promoción y Educación para la Salud (Information System for Health Education and Promotion)
SNST	Sistema Nacional para la Seguridad Transfusional (National System for Transfusion Safety)

T

TEDDY	Task Force in Europe for Drug Development for the Young

W

WHO	World Health Organisation

The Annual Report prepared by the Spanish Healthcare System Observatory for the year 2008 provides, as it has in past years, a summary of the current state of Spain's national health system and insight into its evolution year by year. Its purpose is to offer all interested persons updated information about the situation and interventions that have taken place in Spain. This overview contributes to the transparency of the national health system and is useful for anyone wishing to obtain a better understanding of it during the period analysed.

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