Barcelona Treball

Health

Sector Report 2013

With the collaboration of:
Col·legi Oficial de Metges de Barcelona
The 10 keys to understanding the sector

Despite the current economic climate, with important reductions in health budget, the health industry try to maintain a steady volume of activity and demand for professionals, due to health is one of the most prized possessions of the public at large, and its relevance in the social and economic progress of countries is indubitable. The efficiency improvements are also part of the strategy to keep the current system of health.

The sector
This is a very broad and heterogeneous industry, in terms of both the occupations and the fields of activity it covers. It comprises activities and occupations which are designed to recuperate, maintain and protect people's health. To this end, it includes healthcare and public health, amongst other activities whose objective is to improve the individual and collective health of society.

Main areas of activity
The health industry includes fields of activity which are very diverse and, at the same time, are all interconnected; these include healthcare, public health, healthcare management and support for research and healthcare. The field of healthcare comprises the medical activities which deal directly with people (users of public or private health services). These include primary care, socio-health and mental health care and hospital care. Though they do not carry out activities which involve direct contact with people, the fields of public health and healthcare management, as well as support for research and healthcare, are key to the development and growth of the sector.

Trends
Health is one of the most prized possessions of the public at large, and its relevance in the social and economic progress of countries is indubitable, which makes it a necessity for governments to invest a large portion of their efforts and public funds in the development of the industry, with respect to the expansion of both human and material resources. Similarly, public and private investments will increase the provision of the activities related to the people's healthcare, as well as those linked to public health and research. In Catalonia, in the field of health care, some changes are happening in primary care, which among other things; enhance the role of the doctor reference and nurse for every citizen for all aspects about health.

Economic importance
The weight of the health sector is estimated at 4.5% of GDP in Catalonia. From the point of view of public budgets, the Government of Catalonia has an expense in healthcare for 2012 of €8,750 million (11.18% less than in 2011, estimate). Spendings stood at 2007 levels, after a steady decline in recent years. According to the draft budget 2012, health
spending per capita for the Government of Catalonia is 1.150 €/person, slightly below the average of the 17 Regions (€1.228,62). The average of the budget of the Government (2012) devoted to health is the highest, representing 30%.

In 2011, health spending in Spain was €910/household/year, value that undergoes a downward trend since 2008. In Catalonia, the cost is higher than in the rest of Spain, specifically €119.8/household/year more. In this case, although there has been a decline since 2008, it is lighter than in the rest of Spain.

Employment
The third quarter of 2012, in Spain there are 940.800 people employed in health sector (5% lower than in 2011). Moreover, in 2012, there are 130.878 companies; 67% have no employees. As for Catalonia, during the third quarter of 2012 there are 226.300 people employed in the health sector; 15% lower than the same quarter of 2011. Specifically, as stated in the budget of the Government of Catalonia in 2012 (estimated), there are 76.259 people working in the public health sector (representing 2.6% of the employed population in Catalonia).

Health is one of the sectors with the greatest expected demand for professionals, especially doctors, in both the public and private sectors and particularly in healthcare which is very labour-intensive. In 2007 the Catalan Medical Association noted that there was a lack of anaesthesiologists, paediatricians, psychiatrists, radiologists and gynaecologists, especially in smaller hospitals which are further from urban areas, as well as primary care doctors in rural areas and GPs.

Professional profiles most in demand
Medium- and high-level educational profiles (the former foundation and licentiate degrees awarded in Spain before convergence to the EHEA) have been in the highest demand until now. However, there is an upward trend in the demand for professionals with particular vocational training qualifications, as their background is increasingly valued and appropriate for the change taking place in the sector, for instance healthcare assistants.

Occupations most in demand
Nursing and medical staff account for around two-thirds of the healthcare professionals in hospitals in Catalonia (according the latest report about health, 2005, produced by the Department of Health of the Generalitat of Catalonia). It is estimated that this group will continue to be the principal workforce in healthcare systems; in fact, changes are being introduced which point towards an increase in the importance of professional profiles in nursing. However, the progressive introduction of other occupations, such as assistant technicians or people with a medium-level vocational training qualification or proficiency certificate, is also a priority. However, the addition of new professionals will be subject to overcoming the public debt crisis.

Future scenarios
The future of the sector is conditioned by a multitude of demographic, technological, cultural and even political variables. However, the efforts directed at maintaining the sustainability of the health systems will likely be those which will be able to most affect the future evolution of the sector. In fact, 2008 calculations revealed that the sum of €1 billion more must be added to the healthcare budget in order to maintain its sustainability. Although this was actually being done, the current budget in 2012 (estimated) is now back down at levels equivalent to expenditure in 2007. In spite of this, efforts to improve and increase the efficiency of public health services seek to build ICT into clinical and hospital care and ensure more efficient use of resources by sector professionals and the public at large.

Weaknesses
There is a growing concern among public and private health system managers about meeting the challenges presented by aging, chronic diseases, systemic pathologies and the problems stemming from poly-drug use. If changes are not made, these situations and the limited resources available may call the economic and financial sustainability of the health systems into question.

Opportunities
The role of innovation, which is key to the development of any industry, can be turned into an opportunity to improve the efficiency and efficacy of the public healthcare sector. Streamlining resources through the introduction of new technologies may bring with it the creation of new and emerging occupations while at the same time improving the satisfaction and efficiency of current professionals. Some of the benefits which may be achieved through technology are an increase in the problem-solving capability of primary care, a boost for public health and research, a reduction in red tape in health care processes and an increase in self-management. These benefits can be translated into savings on social and health expenditures.
Introduction to the sector

The health sector spans all of the activities and occupations oriented towards recuperating, maintaining and protecting the health of people in the individual and collective spheres. It is a broader industry than the more well-known healthcare industry, a term which is habitually used to designate just the activities which are carried out by the professional profiles which provide medical care to the public. Thus in addition to healthcare, the health sector also includes public health, research and all support activities.

As for the Catalan healthcare system, it is different from the majority of the other regions in Spain as in Catalonia healthcare is a public service which is offered through centres which vary in terms of type of ownership, financing and the line of care. Thus the Catalan Health Service (CatSalut, the organisation which offers public health insurance) selects and hires services from providers which belong to the regional health authorities (as is the case with ICS, CatSalut public companies and consortiums), other local authorities (town councils, county councils, provincial councils, etc.), or to privately-owned organisations of varying types (foundations, mutual insurance companies, religious orders, public limited companies, etc.).

The official definitions and classifications for healthcare activities and professions in the health industry are contained in the LOPS (Healthcare Professions Organisation Act 44/2003). Additionally, the Organisation for Economic Cooperation and Development (OECD) also has an exhaustive definition regarding the field of healthcare and research related to public health.
Main areas of activity

Healthcare
The term healthcare covers various fields of activity, including primary care, socio-health care and hospital care.

Primary care is provided in local primary care centres and local surgeries, socio-health care is carried out in socio-health centres with admissions and in day hospitals, and mental health care is performed in day centres and hospitalisation centres. Centres may be publicly-owned, state-aided, private or cooperatives of professionals.

Medical professionals in the field of healthcare who work in care occupations have more direct contact with patients.

Public health and healthcare management
Public health means the total organised actions carried out by the public authorities and society to protect, promote and restore the health of the public in the individual and collective spheres. Amongst other functions, it involves evaluating the health needs of the population; planning and responding to social needs in order to maintain, protect and promote health; and, finally, guaranteeing the provision of public health services and activities in an efficient, sustainable, safe and equitable manner.

Public health policies, here and elsewhere, do not have the same resources or social recognition as the care sector, with which the public has direct contact. However, there are more and more scientific studies which point out that the expense of prevention and health promotion is more efficient than the medical, pharmaceutical and social costs derived from curative procedures. It is because of this that in developed countries such as Spain a more prominent role for public health as a driver of prevention policies is being reviewed and promoted.

Support for research and healthcare
The activities and functions within this field are very diverse and include managing the training of health professionals, optimising the application of medical technologies and improving management and communication between all of the stakeholders involved (government, professionals, users and society) and in every direction (vertical, horizontal and as a network).

The occupations which provide support for research and healthcare are very diverse, as are the environments where they are carried out. But they are all very necessary in order to achieve optimal use of the resources of the health system and research, which are on occasion scarce.
In the coming years, primary healthcare will be strengthened and given a prominent role in the leadership of ongoing care.

**Needs for medical and healthcare personnel**

While the needs for medical and healthcare personnel are much more evident in poorer countries, the new health challenges in more advanced societies are bringing shortages of some professional profiles to light. The aging of the population, the chronicity of diseases, the growing complexity of health systems and new life expectancies are the result of progress and biomedical and technological successes, and they are symptoms of a welfare state which is making it possible to live longer and better. However, they are also the cause of a growing need for professionals and hence despite great technological advances, the health industry will always be characterised by an intensive use of human resources.

**Tendency to increase the role of primary health care**

More than three decades since the 1978 International Conference on Primary Health Care in Alma Ata, and a quarter of a century since the 1986 Reform of Primary Care (RPC), it remains the case that tackling new health challenges calls for strong primary health care that is able to respond to the majority of health problems immediately and in an accessible manner. The definition and the model of the primary health care which were proposed in Alma Ata, the concepts which were introduced – healthcare education, promoting health, community participation, cooperation, solidarity, etc. – and the relevance that was attributed to them are still fully valid today.

The years since the RPC have involved a substantial improvement in many aspects, such as an increase in the quality of the services, an increase in the patient’s confidence in their GP, and recognition of the profession of community nurse.

As a result of the above, and because of the need to increase the efficiency of the health systems in the majority of European countries, primary health care will be strengthened and given a prominent role in the leadership of ongoing care. In fact, various international bodies are directing their efforts towards this strategy; for instance, the World Health Organization (WHO) dedicated its annual report on health in the world in October 2008 to this issue, as did the European Observatory on Health Systems and Policies, creating studies such as *Primary Care in the Driver's Seat? Organizational Reform in European Primary Care.*

In Catalonia, the objectives of the Primary Care and Community Health Innovation Plan (currently underway because it has been approved in 2010) also follow along these lines. Specifically, the Plan aims to promote primary care as a core element of the health system in its role as the first level of specialized care to the public, and as a trustee of the care health content in promotion, prevention, care and rehabilitation carried out by other lines and levels of care health professionals and institutions.

**Transformation and innovation in professions and occupations**

New knowledge and new technological, diagnostic and therapeutic possibilities bring with them the need for increasingly compartmentalised specialisations and the provision of a greater number of professionals to the system, for example doctors and nurses. However, the time needed to train some of them (10 years for specialist doctors) does not fit in with the speed of the changes, which makes their incorporation into the healthcare system more difficult.

It is for this reason, and also due to the growing complexity of health problems (long-term care, multi-pathologies, polydrug use, dependencies, etc.), that an increasingly multi-disciplinary approach is needed along with a reorientation of the professions. The regulation of the sector must be maintained, but it also seems necessary to make it more flexible.

**Digitalisation of medical documentation**

The evolution of new technologies applied to the health system and the implementation and roll-out of the shared medical record (HC3) system in Catalonia have brought with them many benefits in the management of medical information, which must be consulted and generated on a daily basis, as well as benefits in terms of saving time and in printing radiological and non-radiological images, amongst other aspects. It is because of this that in October 2010, the Catalan government and the Health Information, Assessment and Quality Agency presented the Medical Images Digitalisation Plan, which estimates that 100% of images will be digitalised by the end of 2011. Similarly, the objectives
for 2011 include the installation of digital electrocardiograph machines in Catalan healthcare facilities and an improvement in the latter’s connectivity and bandwidth.

In fact, at present 82.9% of hospitals, 93.9% of primary care centres, 77.5% of mental health centres and 10.2% of social health centres in the SISCAT (Integrated Public Use Health System of Catalonia) are connected to the HC3. There are more than 22 million clinical documents indexed in the HC3 and 21,048 users who have access to their Personal Health Folder (CPS). 61.4% of SISCAT hospitals are connected to the TICSalut Network with broadband connectivity and the ability to exchange information and medical images as part of the Medical Imaging Plan. 30% of SISCAT hospitals store digitalised non-radiographic images in the Medical Imaging Central Repository (RCIM). There are two million examinations and 67.2 million images, with 34.7 terabytes stored in the RCIM. 2.9% of SISCAT hospitals publish and distribute radiological images from centres using the HC3.

Electronic prescriptions
The introduction of electronic prescriptions is part of the aim of encouraging the development and use of information and communication technology (ICT) and networking in the health field. It also saves paper and reduces visits to centres. 5.7% of hospitals, 100% of primary care centres, 2.5% of specialised care centres and 6.8% of mental health centres in the SISCAT are connected to electronic prescriptions. 100% of the pharmacies in Catalonia (3,072) dispense electronically and 73% of doctors in Catalonia give electronic prescriptions.

Health Plan of Catalonia 2011-2015; more efficient clinical and hospital care
The Health Plan 2011-2015 has been developed around three core themes designed to address a series of structural trends. This translates into nine lines of action and thirty-one projects which together deliver a greater focus on health, a care model affording enhanced quality, accessibility and security, and a more appropriate organisational model in terms of ensuring the sustainability and strength of the health system.

Drafting of the Health Plan of Catalonia 2011-2015 has taken into account the following structural aspects that require a profound change: the increasing incidence of chronic diseases associated with population aging and deterioration of lifestyles, congestion (especially in emergencies) and poor integration between levels of care (especially in specialised primary care) that adversely affect the flexibility of the system, and high variability in the quality of the provision of highly specialised procedures.

Hence the Department of Health’s Health Plan 2011-2015 is to be an essential tool in addressing challenges and ensuring the sustainability of the public health system in the medium term. It has noted that many neighbouring countries have initiated major changes to address these challenges. Examples include:

- The UK has launched a comprehensive plan with the goal of reducing expenditure of £20 billion per year. Measures include a 45% reduction in administrative costs and between 10-15% in drug outlay, and a new mechanism for health service procurement has been set up.
- In France 1,700 public hospitals are being remodelled in order to improve clinical quality (for example, 80% of patients will be treated in emergencies within 4 hours) and efficiency (2.5% reduction in operating costs).
- In Germany, successive health reforms are being carried out to increase competition, reduce demand (co-payment) and improve procurement systems. In addition, insurers are focusing on the launch of DMP (Disease Management Programmes) for the integrated treatment of chronic diseases.
- In Sweden an element of free choice for the public and a radical change in the procurement model, shifting it towards the purchase of results in hospitals and health centres rather than activity, are being introduced.
The sector in figures

Economic data

- According to the study "Health as an economic sector in Catalonia"\(^1\), during 2007 the sector had an impact on Catalan GDP of 5% (since 2003 the weight of the sector increased 0.1 points annually).

- The initial budget of Health, according to the Ministry of Health, Social Services and Equality, resulting of the sum of the expenditure on health of Social Security, administrative mutualism and Central Government is €4.286,10 million (5.17% less than in 2010). This same budget between 2010 and 2011 was reduced by 7.69%.

- The Central Government, according to the budget of 2012, has transferred €836,7 million\(^2\) to the Autonomous Communities, 0.07% less than in 2011.

- In 2012, according to the Ministry of Health, Social Services and Equality, 17 Regions, in aggregate, have an initial budget statement (in terms of running costs) for health about €55.460 million, 0.05% higher than in 2011. Catalonia is the Region with the highest budget (15.4%), only after Andalusia (16.6%).

- Between 2010 and 2011, the health budget in the set of the 17 Regions fell 3.38%.

- In terms of the current budget per capita\(^3\), according to the Ministry of Health, Social Services e Equality, the average health expenditure in 2012 for the 17 Regions is €1.228,62/person, 0.03% lower than in 2011. Between 2010 and 2011 the expenditure per capita fell by 3.74%. Catalonia, according to data from 2012, has the fifth lowest per capita health expenditure (€1.150,27/person) above Andalusia, Madrid, Balear Islands and Valencia (the latter the lowest). Extremadura has the highest health expenditure (€1.674,69/person).

- In Spain, according to the Ministry of Health, Social Services and Equality in 2012, there are 1.937.255 people protected by private insurance companies (4.10% of the population census), represents a 0.99% less than in 2011. In Catalonia this group accounted for 164.479 people (0.7% less than in 2011) and represents 8.49% of Spain's and 2.17% on the census of Catalonia.

- Spain has 45.275.735 persons protected by the public health system (2012), which represents 95.9% of the census. This value is 0.09% higher than in 2011. Catalonia protects 7.401.312 people (0.37% more than in 2011), representing a 97.8% of census.

- The final budget of the Department of Health of the Generalitat of Catalonia in 2012, according to estimates of the Ministry of Economy and Knowledge, is €8.750,8 million. This represents a reduction of 11.8% compared to the final budget of 2011, which stood at about €9.800 million. Spending in 2012 is below all previous budgets until 2007, when the budget was lower than the recent.

- The budget of the Department of Health of the Generalitat of Catalonia is the most important, representing almost 30% of the budget of the Government of Catalonia (2012) and 56.2% of the weight of social spending by the Government, formed by the departments of Health, Education and Social Welfare and Family.

- The consolidated current expenditure (personnel, goods and services and current transfers) account for about 97% of the total health budget in 2012 (Government's Budget). Specifically, 22% corresponds to staff costs, and 61.6% to expenses on goods and services, the rest are transfers to other organs.

- The Government distributes the budget, in addition to the Department, between the following public entities: Catalan Health Service (CatSalut), Catalan Institute of Health (ICS), the Institute of Health Studies and Catalan Institute of Health and Medical Evaluation. Regarding the staff costs of the initial budget established in 2012, 2.1% are expenses of the Department, 1.3% of CatSalut, 96.5% of the ICS.

---


\(^2\) Some of the costs included in these transfers, for example, are aimed at the Hospital Clinic from Barcelona. According to data for the third quarter of 2012 from the Active Population Survey (EPA).

\(^3\) Total number of people insured by the public health system.
and 0.1% of the Institute of Health Studies. Regarding expenditure on goods and services, the Department has a budget of 0.2%, 84.1% for CatSalut, 15.6% for ICS, and 0.2% for each, Institute of Health Studies and the Catalan Institute of Medical Evaluation.

- 63.57% of CatSalut budget (Activity Report 2011), if it is considered the functional structure of investment projects (€122.62 million) corresponds to specialized care: 35.19% to primary care and 1.24% for system administration.

- Considering the economic structure of expenditure accounted at CatSalut (Activity Report 2011), 42.88% of the budget is spent on health care specialist, 28.62% on transfers to the ICS, 19.98% on pharmacy costs, 3.90% in primary care, 0.56% on management and administration, 0.02% on biomedical R&D and health sciences, and 3.04% on other health services.

- CatSalut (Activity Report 2011) manages 367 primary care centres, 98 social-health centers, 63 hospitals, 158 psychiatric centres (adults and children and youth), 40 hospitalisation mental health centers and 3.210 pharmacies and medicine cabinets.

- According to CatSalut (2011 data), annual public spending on health was €1.207/person (3.3 euros a day). In 2010 the cost was €1.295/person (6.8% higher than in 2011).

- According to CatSalut 2011 each person insured in public health services public did on average 6.3 visits/year in primary care (6.5 in 2010), received 19.7 prescriptions/year and generated a pharmaceutical expenditure of €236,14/year (in 2010 was €253,85). In 2011 there were a 94 hospital contacts (inpatient and outpatient surgery) per 1.000 inhabitants (in 2010 was 97.4).

- The Catalan Institute of Health (ICS), as stated in the report of activities of the institution in 2011, manages 8 hospitals, 288 primary care facilities, 20 continuing care units and emergency devices with 165, 25 services for sexual health, 16 rehabilitation services, 10 clinical laboratory services, 30 diagnostic image services, 31 outpatient specialty centers, 14 units of the home care program and support teams (PADES), 8 mental health services, 3 occupational health services and 9 international health units.

- In 2011, the ICS attended 3.86 million people (44% correspond to chronically ill), which generated a pharmacy spending of 1.105,44 million (chronic patients generate 84% of this expenditure), that is, €285,79/person.

- From executed budget by the ICS in 2011, 40.2% is allocated to primary care, 56.7% in specialized attention and 3.1% in corporate center. The cost of the ICS in Barcelona represents 31.3% of the budget, 20.8% in the metropolitan north area, 17.3% in the metropolitan south area, 8.6% in Girona, 7.7% in Lleida, 6.9% in Tarragona, 3.6% in Terres de l’Ebre and 3.4% in Central Catalonia.

- Spending on health in Spain, according to the Family Budget Survey (carried out by the National Statistics Institute, INE) was €910/year/household (2011). The recent trend is downward, and in 2008 (when spending in the period 2006-2011 was higher) was €1.023,71/year/household, i.e. €113,68 more than in 2011. Between 2008 and 2009, spending fell by 5.1%; between 2009 and 2010 by 2.9%; and between 2010 and 2011 by 3.5%.

- Spending on health in Catalonia, according to the Family Budget Survey is higher than in the rest of Spain. Specifically, in 2011, health spending in Catalonia was €1.029,82/year/household (€191.8 higher than in the rest of Spain). Similarly, although the trend is similar to Spain, the fall is lighter. So from 2007 until 2011 (when spending was higher), spending was reduced by €64.

- According to Catalan Health Service (Monthly monitoring of pharmaceutical services), the pharmaceutical bill presented in September 2012 (i.e. accumulated during the first nine months of the year) is 11.45% below in comparison to the same period in 2011.

- According to the Health Survey of Catalonia in 2011, prepared by Department of Health, 89.8% of Catalans using the health care system (in the last 12 months prior to the survey) were satisfied.

- In 2011, according to CatSalut and ICS, there were 2.119 places in day centres, 1.998 day hospital beds and 1.601 day mental hospital places.

- In 2011, according to CatSalut, 98% of the population has a primary care centre within ten kilometres and time taken to get there for 98.8% of the population is less than ten minutes. 98% of the population is less than thirty kilometres from a centre that provides acute care hospitalisation. 87% of the population of Catalonia is within thirty kilometres of another specialised care centre (mental health, social health, etc.).
Employment data

- According to the budget (estimate) made in 2012 by the Government of Catalonia, there are 76,259 people working in the specific area of health, representing 2.6% of the employed population in Catalonia.
- 55% of people employed in the public health system work in the ICS, 27% in government consortia, 7.9% in public corporations, 6.1% in foundations, 2% in corporations, 1.6% in the Department of Health and 0.7% in CatSalut.
- In 2011, the Catalan Institute of Health (ICS) employed 39,525 health professionals: 19,881 work in primary care (50.3%), 19,280 in hospitals (48.8%) and 364 is staff of ICS corporate centre (0.9%).
- The ICS, according to 2011 data, trains 2,400 residents each year from 50 different specialties.
- In Spain, according to data from the Active Population Survey (EPA) prepared by the INE, has 940,800 people employed in the health sector (5% less than in the same quarter of 2011).
- In 2012 in Spain there are 130,878 companies in the health sector (Directorio Central de Empresas data- CCD-prepared INE): 59% from medical and dental activities, 40% to other health activities, and 1% in hospital activities. Since the beginning of the crisis, in 2008, there are 15,866 companies more in the healthcare sector.
- 75% of companies in the health sector in Catalonia (2,012) are individual owner companies.
- According to Idescat, in the third quarter of 2012 the population employed in health services and social services is 226,300 people, 15% less than the same quarter in 2011, and 5.7% less than the previous quarter.
- In Catalonia, according to Idescat 2011, there were 37,815 doctors who represent 16,7% of total medical colleges in Spain (226,424). Barcelona province accounts for 80.8% of doctors in Catalonia. Similarly, in Catalonia there are 4,567 dentists and dentists (16% of the Spanish), 10,253 pharmacists (15.8%of the Spanish), 48,181 nursing graduates (16% of the Spanish) and 1,025 dental pros thesis (no data for Spain).
- Regarding hospital medical staff (excluding psychiatric hospitals), according to Idescat, in 2009 (latest data available) there were 64,981 professionals in Catalonia: 37,2% corresponded to nurses, 29.8% to doctors, 26.2% to clinical assistants, 4.6% to health technicians, 1.4% to other graduates and 0.7% to pharmaceuticals.
- For services, according to Idescat 2009 (latest data available), doctors are distributed as follows: 34.2% to general practice services, 26.6% to surgery, 17% to MIR, 16% to central services, 7.2% to obstetrics and gynaecology, another 7.2% to guard, 6.2% to paediatrics and 2.7% to psychiatry.


4 Segons dades del tercer trimestre de 2012 de l’Encuesta de Población Activa (EPA).
5 Data from health workers and social services are not disaggregated at Idescat.
Professional profiles most in demand

Most highly qualified professional profiles

Training profile

The principal workforce in the industry consists of highly trained profiles, basically specialists with degrees in medicine and nursing. In Catalonia, these professionals make up two-thirds of total health-related personnel. The proportion of nursing personnel in relation to medical personnel is lower than in many other countries. However, there are trends towards change; firstly, an increase in the importance of nursing profiles, and secondly, an increase in the employment of technical and assistant personnel, that is to say less qualified professionals.

The system of specialisation by doctors has provided indisputable benefits to the industry. For example, Catalonia and Spain have specialists with high levels of competency and training and a high quality of services throughout the territory. However, this system is currently facing a series of difficulties such as extreme specialisation, the time required to train specialists (which does not keep up with the speed of the changes) and interdisciplinary inflexibility. In order to correct this situation, training programmes are being revamped, with an example being the core subjects introduced by the 2003 Healthcare Professions Organisation Act (LOPS).

University degrees linked to the health sector are the following: medicine, nursing, pharmacy, physiotherapy, basic medical sciences, dentistry, ophthalmology and optometry, chiropody, psychology and occupational therapy.

Skills profile

The competencies which professionals in the industry must possess are varied and depend on the field of activity in which they are employed, as well as their work environment. However, all professionals in the industry are required to be motivated on the job, to have the ability to adapt to changes and to have initiative and the capacity for self-learning.

Professionals in the field of healthcare who have direct contact with patients must have a large amount of empathy and good communication skills as well as a great deal of self-control.

Public health and healthcare management professionals and research and healthcare support staff who are managers, diagnostic centre personnel and researchers, amongst others, need to have the ability to manage teams as well as organisational, analytical and technical skills.

Examples of jobs in the web Barcelona Treball directory

✓ Specialist in workplace medicine
✓ Out-of-hospital emergency nurse
✓ Mental health nurse
✓ Neurobiologist
Less qualified professional profiles

Training profile

Professional training is one of the issues contained in the Catalan Government’s 2008-2010 Strategic Agreement, and in the health industry in particular changes are being brought about in this area. Some vocational training courses in the sector provide technicians and assistants with sufficient skills to adapt to new situations and practise their profession with guarantees. Other training courses, according to experts, still need to be revamped in order to adapt to the new healthcare systems. At any event, higher vocational training certificates in the health sector include pathological and cytological anatomy, prosthetic audiology, dietetics, healthcare documentation, oral hygiene, diagnostic imaging, clinical diagnostic laboratories, orthosis and prosthesis, dental prosthesis, radiotherapy and environmental health.

Medium-level training courses specialised in health are auxiliary nursing care, medical emergencies and pharmacy and non-prescription drug pharmacy.

Skills profile

The most valued skills in these professional profiles, just as with the higher qualified professional profiles, also depend on the area of activity in which they are employed and on their work environment. Thus those who have direct contact with patients must be empathetic and have good communication and self-control skills, while those who work in management or in diagnostics must have greater analytical, organisational and technical skills.

Examples of jobs in the web Barcelona Treball directory

- Medical transport technician
- Specialised radiotherapy technician
- Anti-doping analyst
- Medical documentalist
Future scenarios

Weaknesses

- There is a clear dichotomy between the limitations of health resources and the seemingly inexhaustible demand for them.
- The bureaucracy of the public health system sometimes presents obstacles to the efficacy and efficiency of the services it provides.
- The underuse of the high degree of skills of some highly-trained professionals. The main causes are the excessive paperwork they often have to do and the difficulties of introducing changes to systems that optimise use of resources.
- Actually, the barriers to taking advantage of the potential of some medical technologies and ICT, including the resistance of professionals and the restrictions of organisational systems.
- The inherent corporative feeling of the professions, the fear of losing their status (this is a sector with a marked hierarchical perception of professions and even of the professional levels within each of them), the ignorance of other professions in the sector, the infrequency of sharing, little inter-professional education and insufficient communication hinder teamwork and cooperation between disciplines and the different levels of healthcare.

Threats

- The aging of the population, the increased percentage of chronic diseases and multi-pathologies, the cost of new technologies and growing health demands are calling into question the economic and financial sustainability of health systems beyond the current context of economic crisis. For example, in 2011 people with chronic diseases generated 84% of spending on pharmaceuticals, supported by the public system of Catalonia.
- The constant demand for immediacy and the perception that medicine is unlimited and able to cure any disease may generate a degree of unease amongst medical professionals who feel pressured by the dictates of society in this sense.
- Improper use of the system and its circuits, for example the use of hospitals for pathologies which can be attended to in primary care, emergencies which are not urgent, etc., means an over-extension of healthcare resources which may be critical in the long run.
- The progressive increase in lawsuits and violence towards health professionals and their consequent defensive posture.
- The limitations of the university system in increasing the number of doctors required to improve healthcare in terms of human resources.
- Budget cuts in 2011 have led to a decline in public health spending, which is now equivalent to expenditure in 2008. This may involve a reduction in service quality if the efficiency of the public health system is not increased.
- Misuse of public resources by the general public who are not sufficiently aware of the cost of having a public service as it currently is.
- Other countries can offer better salaries and recognition, fact that can generate increased drain of health professionals (in the case of nurses in Britain, for example).

Strengths

- The support of government to guarantee adequate financing and ensure equity in service quality. Catalonia has a spending of €1,207 per capita in 2012, but although the goal is to achieve €1,600 per
person per year, this will have to be postponed until such time as public debt has stabilised.

- The widely recognised competency of the Catalan healthcare system in terms of service quality and training of professionals.
- The increase in the public's confidence in health professionals in recent years.
- The evolution of modern medical care is a continuous process of innovation in both the skills of professionals and the technologies used.
- Unlike what happens with most sectors, it is highly unlikely that the health sector will be damaged by the impact of economic crises, at least in developed countries, given that in most of them there is a welfare system which is sufficiently solid and developed to meet people's health needs. The fact that health is one of the pillars of the welfare state gives the sector a guarantee of continuity and progress, mainly because the government gives it even more support in times of crisis. However, 2011 has been a turning point that will not be reversed until the economic crisis ends. However, 2011 marked a turning point in budgetary terms, which may not recover until the economic crisis ends. In 2012, the health budget has gone down.

Opportunities

- The need for change is accepted and there is the intention of investing in innovation and development as a way to maintain the healthcare system’s financial sustainability and quality.
- By areas of activity, there are opportunities for improvement in primary care through the Innovation Plan, in public health through the Public Health Act and the setting up of the Health Protection Agency of Catalonia (APSCAT), etc.
- Take advantage of the high skills of nursing professionals to increase the efficiency and efficacy of the services provided.
- In addition to economic and contractual incentives, their professional careers and continuous professional development will be key aspects in the improvement of the efficiency of the human and material resources available in the sector.
- An increase in self-management and independence for centres is expected. This may contribute to centres investing resources in the medical and social fields which interest them most and, therefore, to an increase in their specificity and speciality on concrete topics.
- The World Health Organisation (WHO) identifies two key types of actions that can be applied to all countries: the first is to raise funding for the health system through innovative actions (new taxes on harmful substances, solidarity contributions for the use of certain technologies, etc.) and the second is to promote the efficiency of available resources as it is estimated that between 20% and 40% of resources allocated to health are used inefficiently (misuse of drugs, unnecessary or repeated procedures, etc.).
Useful links

**International organisations**

World Health Organisation (WHO)
http://www.who.int/en/

World Health Organisation – Regional European Office
http://www.euro.who.int/

Pan American Health Organization (PAHO)
http://www.paho.org/

European Union. Public Health Policy
http://ec.europa.eu/health-eu/index_en.htm

European Centre for Disease Prevention and Control (ECDC)
http://ecdc.europa.eu

**Spanish organisations**

Government of Catalonia – Department of Health
http://www.gencat.net/salut

Ministry of Health, Social Policy and Equality
http://www.mspes.es

Catalan Institute of Health
http://www.gencat.cat/ics/

Professional Health Associations

Spanish Society of Public Health and Healthcare Administration (SESPAS)
http://www.sespas.es/

**International events (fairs, conferences, etc.)**

WONCA – World Family Medicine Congress
http://www.wonca2013.com/es/bienvenida
The International Congress of Nurses
http://www.icn2011.ch

World Congress on Public Health
http://www.etpha.org/2012/

Conference. Medical and healthcare professions education (AMEE)
http://www.amee.org/index.asp?pg=206

Spanish events (fairs, conferences, etc.)
Congresos-medicos.com – Medical Events Directory
http://www.congresos-medicos.com/

International themed portals
EU Public Health Portal
http://ec.europa.eu/health-eu/index_es.htm

Spanish themed portals
The Catalan Healthcare Model
http://www10.gencat.cat/catsalut/cat/coneix_models.htm

Health Plan for Catalonia for the 2010 Horizon
http://www20.gencat.cat/portal/site/pla-salut