Alzira model: Hospital de la Ribera, Valencia, Spain

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National context

The primary responsibility for health care delivery in Spain's National Health System (NHS) has been devolved in recent years to the country's 17 regions or "autonomous communities" (*Comunidades Autónomas - Figure 2-1).* Using funds generated primarily from taxation (by means of a complex process combining retention of differing shares, according to source, of locally raised taxes, allocations of national tax revenues, and an inter-regional equalization mechanism), each community must ensure that it has the capacity to provide adequate care for its population. It does so within a national legislative framework and according to policies developed by the Ministry of Health and Consumer Affairs in Madrid which, in the 2003 Cohesion and Quality Act, has defined a guaranteed benefits package and specifies minimum levels of expenditure on health. The autonomous communities have some freedom, subject to nationally-fixed thresholds, to raise additional revenues from their regional taxes. The Ministry is responsible for international relations; pharmaceutical policy; and undergraduate and postgraduate medical education. The Ministry also has an oversight role, publishing benchmarking reports comparing regional performance and highlighting best practice. An Interterritorial Council of the NHS (CISNS), composed of representatives of the autonomous communities and central government, promotes the cohesion of the overall system (Durán 2006).

Spain has one of the lowest levels of health expenditure in western Europe. According to the WHO estimates, in 2005 Spain spent a total of PPP US$ 2242 per capita, compared to an average of PPP US$ 2882 in the EU member states before May 2004 (EU15) (WHO 2009). Total health care expenditure in the same year amounted to an estimated 8.2% of GDP (compared to an EU15 average of 9.6%) and public expenditure was also

comparatively low, accounting for an estimated 71.4% of total health expenditure, compared to an EU15 average of 76.8% (WHO 2009).

Figure 0-1 Spain's autonomous communities

Source: http://commons.wikimedia.org/wiki/File:Comunidades_aut%C3%B3nomas_de_Espa%C3%B1a.svg, accessed 3 May 2009

The role of the regions

Each autonomous community is divided into health areas and zones, and the regions are required to compile detailed "health maps" setting out what will be provided within them as part of their responsibility for planning. The health areas, which are responsible for the management of facilities, benefits and health service programmes on their territories, should cover a population of no fewer than 200 000 and no more than 250 000 inhabitants. The health zones, the smallest organizational units, are usually organized around a single Primary Care Team (*Equipo de Atención Primaria*, EAP).

Most physicians are employed by the public sector and receive fixed salaries. Most health staff have a status similar to that of civil servants. In recent years there have been reported shortages of medical staff, affecting especially some hospital specialties. This has coincided with a steady flow of doctors from Spain to other European countries, particularly England, Sweden and Portugal, where salaries are higher. The basic salary for public sector physicians is regulated by the national government, although regions have the capacity to vary some components, leading to considerable regional variations (López-Valcárcel 2006).

Coverage of the population is now almost universal, reaching 99.8% in 2007 (from 81.7% in 1978). Social care services are also the responsibility of the regions, while home care services are managed at local (municipal) level. Long-term care services in Spain are poorly developed, reflecting the traditional view that this is the responsibility of the individual's family.

Health care provision and reforms

The 1986 General Health Care Act placed a high priority on the development of primary health care. A patient's first contact with the health system is the general practitioner, who acts as a gatekeeper to secondary care. A major plank of the 1986 reform was a shift from primary care provided by part-time solo practitioners to primary health care teams working full-time on a salaried basis. By 2001, over 90% of the population in most autonomous communities had access to the new model. Yet, despite this focus on primary health care, hospitals have continued to dominate the health care landscape - and this in spite of the fact that in 2006 Spain had only 2.7 acute care hospital beds per 1000 population, which was at the lower end of the spectrum in western Europe (WHO 2009).

In 2002, an estimated 39% of hospitals were publicly owned. The system of paying hospitals varies among autonomous communities. Traditionally, hospital budgets have been reimbursed retrospectively, with no prior negotiation and no formal evaluation of what has been achieved ("soft" budget constraints). During the past two decades, however, several communities have examined ways of contracting with hospitals, specifying services to be provided in return for agreed budgets. The payment mechanisms have varied but include, in some cases, prospective payments based on Diagnosis-Related Groups (DRGs). Alongside the hospital system, there is an extensive

network of outpatient ambulatory centres, in which some specialist teams from hospitals provide outpatient care.

The 1991 Abril Commission (Comisión 1991) criticized the efficiency, flexibility and participation of medical staff in hospital management within the Spanish health system, and established a new legislative basis for the involvement of the private sector in the delivery of health care, subsequently enacted in 1994 and 1997. This legislation allows the private sector to deliver public health services as long as they remain free and provide universal and integrated care. The regional government remains responsible for defining the health services to be delivered, but different types of public-private partnerships (PPP) were permitted, extending the potential role of the private sector beyond the traditional elements, such as co-payments for pharmaceuticals.

Situation in Valencia

The Valencia autonomous community is located on Spain's eastern coast (Figure 1). According to the 2001 census, it had a population of 4 162 776 inhabitants, rising to 4 950 566 by 2008 (INE 2008: http://www.ine.es). The "*Conselleria de Sanitat*", Valencia's health ministry, has a budget of approximately €4 billion, which amounts to about 40% of the community's budget. It employs 45 000 people and runs more than 1000 health facilities. These numbers make the regional health ministry by far the biggest service delivery organization in Valencia. As a service organization, the *Conselleria de Sanitat* needs to coordinate and manage the delivery of quality health services as efficiently and flexibly as the private sector. However, the provision of care has often been found to be slow, bureaucratic and inefficient, reflecting constraints such as the application of civil service regulations to human resource management.

At the same time, health services must respond to changing needs, such as the challenges posed by a rising and increasingly multicultural population, with strong immigration from Europe and Latin America, late (in European terms) urbanization, an ageing population (Spain has one of the highest life expectancies in western Europe: 84 years for women and 78 years for men in 2006: *INE 2008*), upward pressure on health expenditure due to factors such as new technology, a reduction in the working population, and rising public expectations.

These tensions, coupled with the new powers that flowed from the legislation enacting the recommendations of the Abril Commission, led the Valencia community to explore

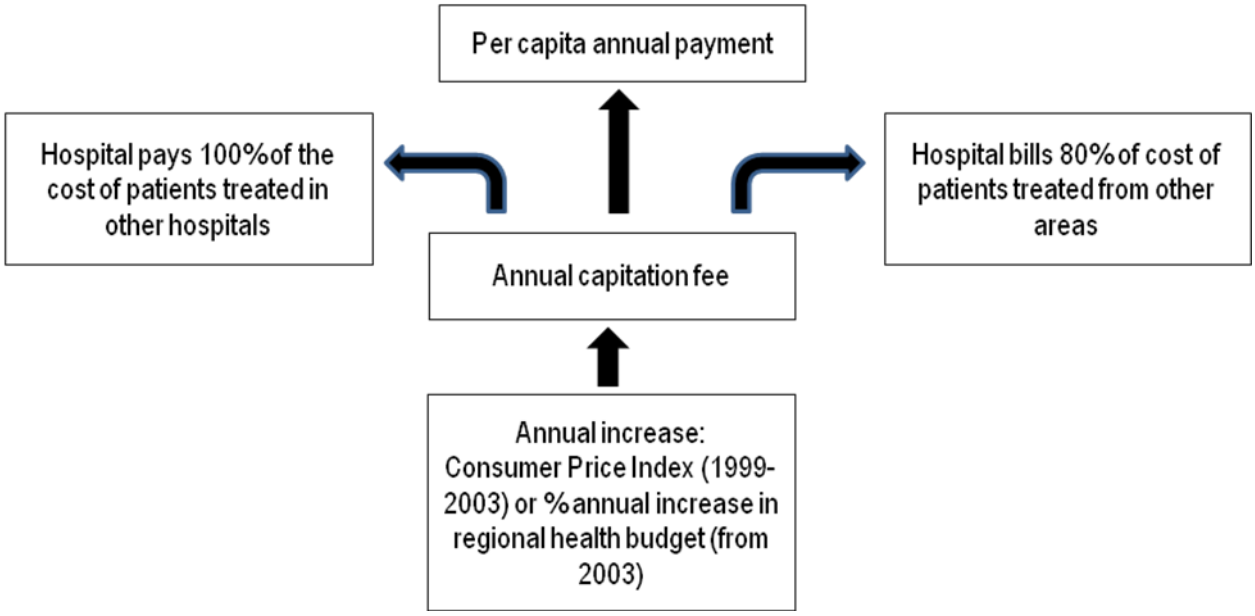
alternative models of provision. Its proposals for the Hospital de la Ribera involved an innovative approach, henceforth known as the Alzira model, whereby public services would be managed privately.

Prior to 1999, the Health Department 11 in the Valencia Community - also called the "Ribera Department" - was one of the few without a local hospital, despite a political commitment to build a hospital dating from 1982. Local inhabitants seeking hospital treatment often had to travel more than 40 km to Valencia. To close this gap in health care provision, the regional government of Valencia looked at novel approaches to finance hospital services using private capital. Finally it issued a request for tenders to build and run a new public hospital that would provide all district hospital services for the population of the area.

The resulting Hospital de La Ribera has become a Spanish pioneer of the public-private partnership model, by which a private company is awarded a contract to build and run a public hospital. By taking responsibility for a population's full-service hospital provision, the Alzira model differed from all previous versions of public-private partnership in the health sector. In the Spanish context, this is called an "administrative concession" or the "Alzira model". The private company responsible for providing the medical care is *Union Temporal de Empresas* (Temporary Union of Companies) – *Ribera* (UTE-Ribera). This company was created by Adeslas, a Spanish private health insurance company (51%), the local building societies Bancaja and CAM (45%), and Lubasa, a construction company (4%). The hospital was built in Alzira and currently serves a catchment population of nearly 245 000.

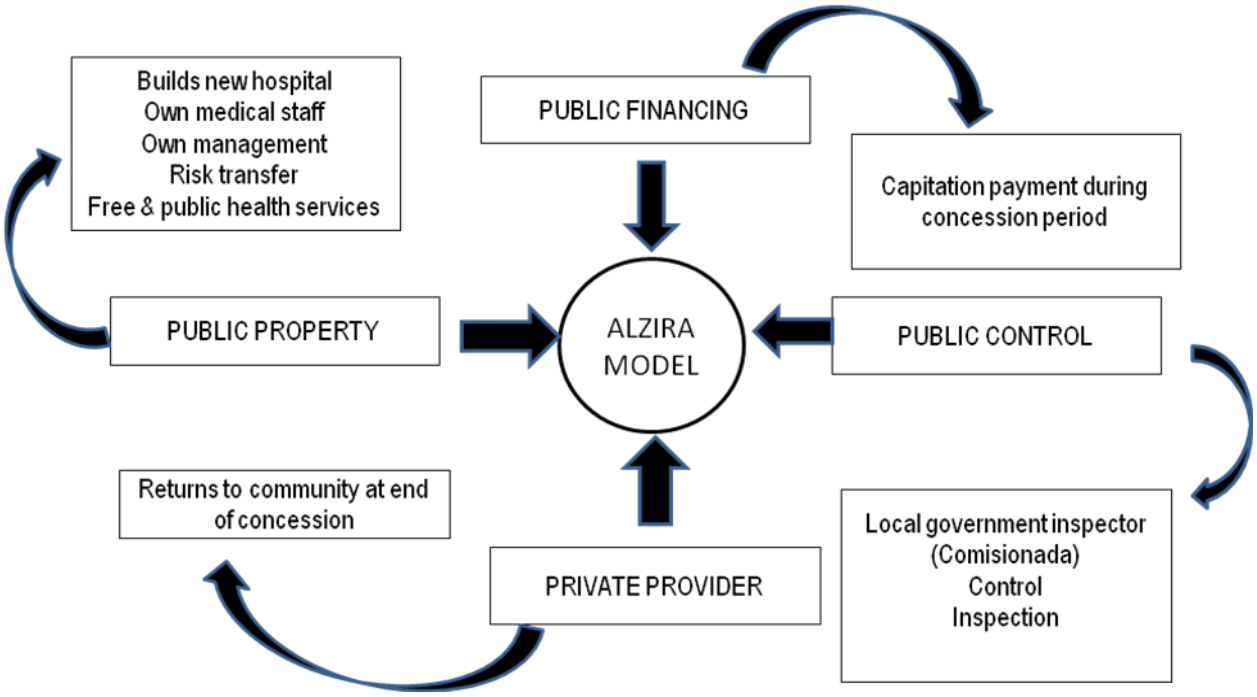
Since the establishment of the first Alzira model concession, other administrative concessions have been granted in Valencia: Torrevieja (2003), Denia (2004), Manises (2006) and Crevillent (2006). They now cover almost 20% of the population of the Valencia community. In Madrid, an administrative concession was created in 2005 in the form of the Valdemoro hospital. The basic principles of the hospital development of the Alzira model are explained in Figures 2-2 and 2-3. Its evolution extending to non-hospital services is shown in Figure 2-4.

Figure 0-2 Alzira model capitation system



Source: Hospital de la Ribera. http://www.ribera10.com

Figure 0-3 Basic principles of the Alzira model



Source: Hospital de la Ribera. http://www.ribera10.com

The Torrevieja administrative concession had a similar organizational structure to the Hospital de la Ribera – in fact, some of the hospital's executive board were former Alzira directors.

Figure 0-4 Development of the Alzira model

Alzira Model I: 1999/2003
Granted for 10 years, extendable to 15 years for the management of specialist medical care for the health area
Capitation fee: 204€ + consumer price index (1999)
Building a new hospital: Hospital de la Ribera
Private investment of € 61 million
"Money follows the patient"
Alzira Model II: 2003/2018
Granted for 15 years, extendable to 20 years, for the management of hospital and primary care in health department No. 11
Capitation fee: 379€ (494€ as of January 2006) + percentage of yearly increase in the health budget (in 2008, 572€)
Private investment: € 68 million during the concession.
"Money follows the patient"

Source: Hospital de la Ribera. http://www.ribera10.com

As shown in Figure 2-4, in its initial phase, the Alzira model envisaged only the delivery of hospital care at the Hospital de la Ribera. However, it was soon realized that there were potential problems with cost-shifting between primary and secondary care, and there was a need to consider the overall health needs of the population. This coincided with recognition that the initial model was inadequately budgeted and faced financial difficulties. As a consequence, the Special Purpose Vehicle was refinanced, and a new organizational model was put in place in 2003, with the company assuming responsibility for delivering health care in both primary and secondary settings.

From the beginning (Figure 3), there have been four main elements to the Alzira model: public financing, public control, public property (ownership of the estate), and private delivery and management.

Public financing

The Alzira model is financed on a capitation basis from the local government. The Valencia government pays an annual fixed sum for each of the registered inhabitants of the Alzira area, all of whom have an electronic health card (around 225 000 inhabitants in 1999, about 245 000 in 2008). The numbers with electronic health cards, and therefore the number of inhabitants covered, is reviewed monthly. Since "money follows the patient", the Valencia Government can predict the annual cost of the Health Department 11.

The revision of the administrative concession in 2003 sought to ensure that profits were shared between hospitals and the community. The hospital was allowed to retain profits up to 7.5% of turnover, with those above this limit returning to the local government. This is seen as a means of ensuring financial sustainability for both parties. The annual increase in the capitation fee, for example, changed from being based on the consumer price index (CPI) to being linked to the annual increase in the Valencia Community health budget.

The Hospital de la Ribera is responsible for all hospital care of patients registered in the health area, wherever they are treated. If patients are treated in hospitals elsewhere, the Hospital de la Ribera assumes 100% of the cost, based on the relevant diagnosis-related group (DRG). Hospitals in other parts of the Valencia region do not, in contrast, lose money if local inhabitants go elsewhere. However, as a disincentive to the hospital using its capacity for patients from elsewhere, such as hospital is only reimbursed for 80% of the cost (priced per DRG) for each patient treated from another Health Department.

In January 2008 the annual per capita fee was € 572 for each of the 245 000 inhabitants of the health area *(Table 2.1).* In return, the company must offer universal access to its wide range of services. In effect there is a transfer of risk, as the budget of the Valencia government is both predictable and limited. This is seen as a means to control local spending and make local government more transparent. The cost per inhabitant is about 20% below the average for the rest of the Valencia community, a level that was politically determined.

Table 0-1 Annual capitation fee in Health Department 11, 2003-2008

	2003	2004	2005	2006	2007	2008
Annual Capitation Fee (€)	379	413.1	454.8	494.7	535.3	571.9

Source: Updated from Hospital de la Ribera. http://www.ribera10.com

The hospital doctors and about half of the general practitioners who work within the Alzira model are employed by the operating company, rather than, as in other publicly managed hospitals, being public employees or civil servants. They are employed within a clinical directorate, organized by clinical coordinators who manage outpatient and inpatient activities, on-call duties, holidays, and operating lists. The coordinators are also responsible for arranging support services necessary to achieve the clinical and non-clinical objectives determined by each Medical Director. Together with the medical director, the coordinators represent the doctors' interests to the hospital board. The Hospital de la Ribera has a continuing medical education programme, overseen by a Medical Training Commission.

Medical salaries have a fixed and a variable component. For hospital doctors, the fixed component amounts to 80% and the variable component to 20%, while for general practitioners the split is 90/10. The variable part of the earnings relates to on-call payments and incentives. Incentives (which are in the range of €6000-24 000 per year) are negotiated with the medical coordinator and linked to specified goals. Salaries are negotiated between the hospital's medical board and trade unions. In Spain, public sector wages for physicians vary according to region. The private salaries negotiated within the Alzira model tend to be above the Spanish average for public wages, when both the fixed and the variable component are taken into account.

In 2007, UTE-Ribera had 1832 employees. 1314 were directly employed by the managing company and the rest, 518 employees, were civil servants contracted by the Valencia Health Ministry.

Public control

The Alzira model is a public-private partnership where, according to the terms of the administrative concession, the hospital has to meet targets set by the Valencia Government. Targets (such as waiting times or immunization rates) have to be at least as high as those achieved by other Health Departments for the rest of Valencia's citizens. The hospital has an incentive to maintain high standards to retain the loyalty of patients, as "money follows the patient". Adherence to the terms of the concession is overseen by a new public figure – the "Commissioner", who reports directly to Valencia's Health Minister – whose role it is to ensure that the hospital is achieving the targets and objectives agreed with the Valencia government. The Commissioner's duties include control and inspection of all medical activities and to ensure the good quality of care given. The Commissioner can also impose penalties if these agreements are not met.

Public property

The private consortium, UTE-Ribera, that was responsible for building the Hospital de la Ribera, is required to maintain its structures and equipment in good condition until the end of the concession, when they will revert to the Valencia Health Ministry. During the second period of the administrative concession, UTE-Ribera built a new and fully equipped Health Centre, Alzira II, (€6 million investment) and has renovated other health centres and invested in new equipment. At the end of the administrative concession, UTE-Ribera is required to leave an up-to-date and functional complement of equipment.

At the beginning of the concession, the condition of all the premises transferred from the health department was audited and registered; when they are transferred back to the local government at the end of the concession they must be in at least the same condition. If not, the company must bring them up to standard. For this reason, UTE-Ribera accepted the necessity of making substantial investments during the concession period.

Hospital de la Ribera is a 301-bed hospital, offering a comprehensive range of services. There are 254 single rooms, 27 intensive care unit beds, 10 psychiatric beds and 10 neonatal cots. All of the single rooms have a companion bed, telephone, individual bathroom and television, although during crises, such as influenza epidemics, they may be double-occupied.

The hospital building was designed according to local government guidelines. It has a similar structure to other hospitals built by local governments at that time and so does not include many innovative design elements. However, the function of the premises was seen as quite different from other, more traditional hospitals. Health professionals have noted a lack of non-clinical space in the hospital, as the hospital is small but has nevertheless seen year-on-year activity increase, with the result that more space has had to be devoted to clinical activity. Facilities maintenance of the hospital is outsourced, as is usual in public hospitals in Spain.

Private delivery/management

As noted above, during the period of the administrative concession, UTE is responsible for the provision of health care to the Ribera area within an annual budget calculated on a capitation basis. As in the rest of Spain, health services are free at the point of use to all inhabitants of the health department. The company has adopted management concepts from the private sector, reflecting its view that public management of health care in Spain has been bureaucratic and inefficient and that a private company can achieve better results using its own medical staff and management tools.

The main policies followed in the Alzira model were patient-orientated:

- free access to medical specialties without, initially at least, gate-keeping by primary care (in order to achieve patient loyalty);
- free choice of medical specialists and hospitals;
- a wide range of outpatient and elective surgery time: from 08:00 in the morning to 21:00 in the evening (most Spanish public hospitals do not provide clinical services after 15:00);
- As patients have the option of going to other hospitals, Hospital de la Ribera seeks to ensure short waiting times in its outpatients department (below two weeks); less than 90 days for elective surgery and an efficient accident and emergency department.

At the beginning of the concession, it was very important to achieve patient loyalty, since the local population and their general practitioners were used to referral to teaching hospitals elsewhere in the community. To attract patients to the Hospital de la Ribera, given that UTE had to pay when if patients of health department No. 11 received care in other hospitals, a free access policy was implemented.

This policy also attracted patients from other health departments with longer waiting lists, with the cost of their care being charged to the respective local government (80% of the DRG cost). After seven years of free access to specialist care, the system was changed to restore the role of general practitioners as gatekeepers to hospital care, although – surprisingly – there has been no major change in demand levels. Since 2005, medical specialists have held some clinics in general practices.

During the second phase of the administrative concession (since April 2003), the managerial concept changed, as UTE-Ribera assumed responsibility for all health care for the local population, rather than just managing a hospital. In this way, UTE has become an integrated health care organization.

This required new working methods. These included creating integrated medical processes (identifying the most appropriate diagnostic and therapeutic pathways), investment in additional diagnostic tools in primary care, complemented by direct access to radiology , endoscopy, pathology tests etc, and creation of a network of information systems, so that information could be shared by all medical professionals (integrated patient medical dossiers). The following policies have been implemented to facilitate this integration:

- Medical link: A consultant physician is attached to each health centre, working with the same patients as the general practitioner. This is designed to implement clinical guidelines with the local general practitioners, resolve medical problems in the health centre, and reduce the number of inappropriate hospital referrals.
- Integrated primary care centres: This seeks to enlarge some of the health centres with onsite X-ray services, accident and emergency departments, and medical specialist outpatient clinics. It is aimed to bring medical services closer to patients.
- Integrated medical care pathways: This aims to streamline the management of health problems, from primary prevention through to palliative care, and including acute care, rehabilitation, secondary prevention, and chronic care.
- Integrated information systems: Hospital de la Ribera was the first public hospital in Spain with a fully integrated computerized medical history, including nursing and medical notes, tests and imaging. Since April 2003, a programme has been undertaken to partially integrate information systems in primary and secondary care. This will use a wide area network (WAN) operating with 750 workstations

and over 1000 users. At present, doctors can access a full medical history from any computer in the hospital. Patient data are entered directly by the medical and nursing staff, which provides first-hand information and helps to avoid misinterpretations or transcription mistakes. The system allows for total interaction between medical and administrative areas. For example, ordered items and inventories are updated according to clinical activity, and the clinical management programme can easily obtain reports of activity by department or by unit of time. The information system enables faster responses by medical staff, improves communication between departments, and enhances audit, financial forecasting, and quality assessment.

During 2007, there was an income of more than € 161 million. This came mainly from the capitation fee and the billing of medical services to patients who do not belong to Health Department 11. During the same period, there was an expenditure of more than € 158 million, which included the cost of managing the whole Health Department, as well as all the investments done:

- building one new Health Centre and remodelling and updating others,
- a new Haemodialysis Unit,
- a new Interventional Radiology Unit,
- a new Medical Physics Gammacamara.

Overall, the company made a profit of more than € 2 million (www.ribera10.com)

All medical services provided in the period 2003-2007 are shown in Table 2. In 2007, there was a slight increase in medical activities as well as the severity of inpatient cases. More than 20 000 inpatients were treated in 2007, with a mean hospital stay of less than 5 days. The rate of surgical day cases stood at slightly more than 50%. Although there was a 2% increase of hospital emergency visits in 2007 compared to the previous year (with an admission rate of 13%), the number of emergency visits in primary care increased by 9% between 2006 and 2007.

Table 0-2 Hospital de la Ribera clinical performance, 2003-2007

	2003	**2004**	**2005**	**2006**	**2007**
Inpatient Care					
Nº Inpatient admissions	19 414	19 564	20 526	20 943	21 900
Nº elective admissions	5 900	5 888	6 239	5 921	5 981
Nº Deliveries	2 212	2 499	2 581	2 588	2 746
Mean hospital stay	4.78	4.66	4.61	4.54	4.72
Mean Severity Index	1.602	1.617	1.624	1.667	1.719
Surgical Care					
Nº surgical interventions	19 743	19 608	20 026	19 520	20 060
Nº Day case surgery	6 723	6 984	7 319	7 290	7 294
Emergency Care					
Nº Hospital Visits	125 480	118 668	116 085	105 297	107 743
Nº Out hospital visits	-	155 244	206 305	225 099	248 748
Outpatient Care					
Nº Outpatient visits	517 027	520 787	545 960	583 226	590 405
Nº X-Ray tests					
Nº Path lab tests	3 658 677	3 823 582	3 957 302	4 140 320	4 269 355

Source: Hospital de la Ribera. http://www.ribera10.com

Strategies to improve outpatient care

From the beginning, the hospital had computerized medical records covering all clinical episodes, including outpatient, inpatient and accident and emergency visits. A picture archiving and communications system (PACS) module is integrated with the computerized medical record, as well as an administrative module, supplies and purchasing module, and an on-call duty rota module. However, the original system was found not to meet the hospital's needs and had to undergo significant redevelopment. Now, little is left from the original system. The changes were introduced at the request of medical professionals.

Since 2004, the local government has been developing computerized medical records for primary care which will operate across all health departments. The goal is to create an interface between both systems, making primary care and hospital medical records accessible to both general practitioners and hospital doctors. The integrated medical record is seen as a success and, so far, no serious breaches of data protection have arisen. Health professionals have found it to be beneficial to their work.

Conclusion

Although the Alzira model has not been subject to a formal evaluation, it is viewed positively by patients, staff, the central administration (*Consejeria de Sanidad*), and the private consortium (UTE). There are many limitations of patient satisfaction surveys, with problems exacerbated by the fact that this hospital served an area where there had been no previous facilities, so the population had to travel considerable distances. However, polling has found that the vast majority of patients (consistently more than 90%) are happy with the service received and would choose the hospital again if necessary. Interestingly, around 80% of those surveyed had no knowledge of the type of hospital management in place.

This management style is seen as offering important advantages for employees. Medical doctors can manage their own time within the limits imposed by the hospital, and create and develop clinical units. The presence of continuing medical education and of a research committee facilitates the education and progression of physicians. The system of incentives financially rewards the activity and efficiency of individual doctors.

The public administration (*Consejeria de Sanidad de Valencia*) benefits from the Alzira model, since it did not have to spend the resources for the initial investment (€68 million) to build a new hospital. The prevailing accounting system allows it to avoid a significant increase in local public debt, as the public-private partnership is considered to be off-balance sheet for the public sector, although this is essentially a technicality since the stream of future costs must still be paid for. The administrative concession also permits more reliable public expenditure forecasting. Furthermore, it is expected that the costs will be at least 20% lower than in other health areas. The "indirect management" seems to lead to a better use of public resources, more efficiency, an increased volume of activities, better service, and a higher number of citizens satisfied with the government's performance.

Finally, UTE-Ribera benefits from the public-private partnership with the *Consejeria Sanidad Valencia*, as it is profitable. The company has developed the know-how of running a large general public hospital, and hopes that this partnership could be extended to other health areas.

References

Comisión (1991), Comisión de Análisis y Evaluación del Sistema Nacional de Salud, *Informe y Recomendaciones,* Madrid

Durán A, Lara JL, van Waveren M (2006). Spain: Health system review, Health Systems in Transition, 2006; 8(4):1–208.

INE 2007: Population and Housing Census 2001, Instituto Nacional de Estadística, Madrid [http://www.ine.es/inebase/cgi/axi, accessed 29 July 2007]

López-Valcárcel BG, Quintana, CDD, Socorro, ER (2006). Spain; in: Rechel B, Dubois C-A, McKee M (ed) The Health Care Workforce in Europe, Learning from experience. European Observatory on Health Systems and Policies, London.

WHO 2009: European Health for All database, January 2009 edition, World Health Organization, Regional Office for Europe, Copenhagen

Web links of interest

Hospital de la Ribera and Health Department 11: http://www.ribera10.com

Generalitat Valenciana: http://www.ribergva.es

Conselleria Sanitat Valencia Community: http://www.san.gva.es

Instituto Nacional Estadistica (Spain) : http://www.ine.es