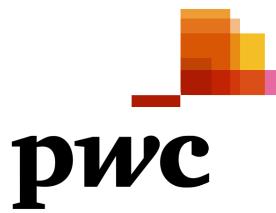
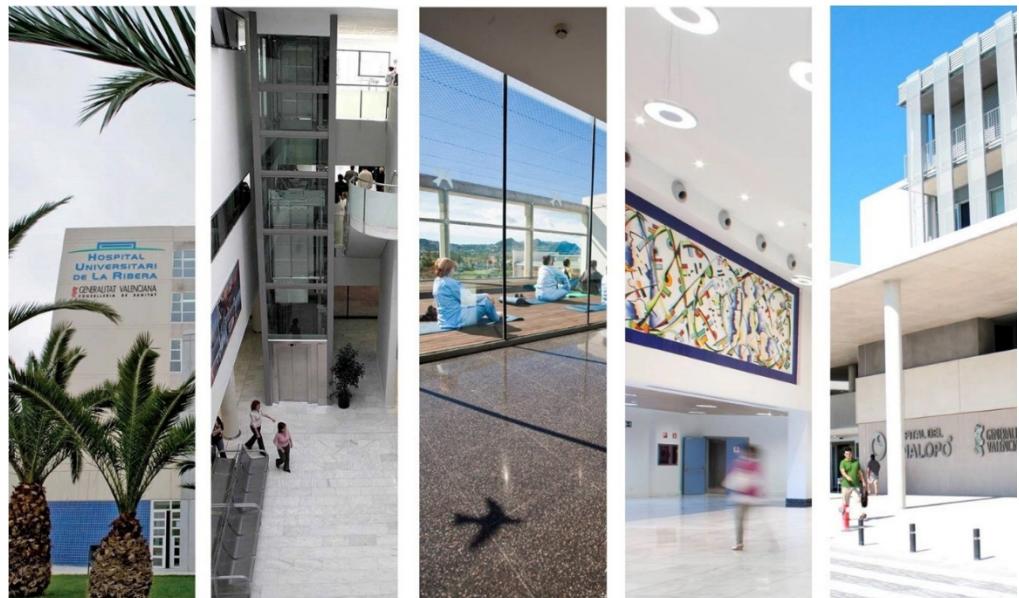


# ***Innovation roll out***

Valencia's experience with public-private integrated partnerships

*Healthcare public-private partnerships series, No. 3*



**UCSF** Global Health Sciences  
Global Health Group

### **The Global Health Group**

Global Health Sciences  
University of California, San Francisco  
550 16<sup>th</sup> Street, 3<sup>rd</sup> Floor  
San Francisco, CA 94158 USA  
Website: [tiny.ucsf.edu/globalhealthgroup](http://tiny.ucsf.edu/globalhealthgroup)

### **PwC**

300 Madison Avenue  
New York, NY 10017 USA  
Website: [www.pwc.com/global-health](http://www.pwc.com/global-health)

### **PwC Mexico**

Mariano Escobedo 573. Col. Rincón del Bosque  
México, D.F. 11580 México  
Website: [www.pwc.com/mx/sector-salud](http://www.pwc.com/mx/sector-salud)

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# **UCSF/PwC report series on public-private partnerships**

## ***About the report series***

This report on public-private integrated partnerships (PPIPs) in Valencia, Spain is the third in a series of publications on public-private partnerships (PPPs) jointly authored by the UCSF Global Health Group and PwC.

This series aims to document and raise awareness of innovative PPP models in health globally, and to disseminate lessons learned to inform current and future healthcare partnerships.

*“Innovation roll out”* explores the experience of the Valencia Community of Spain, as it developed and expanded the PPIP model to address the health needs of its population in five health departments between 1997 and 2013. The report discusses the successes and challenges encountered, and examines the range of innovations in patient care, management practices, performance management and use of technology put in place to achieve financial efficiencies and improved access to integrated health care for target populations. Finally, the report explores several opportunities for both the public and private sectors, to optimize the success and sustainability of the model in the future.

## ***About public-private partnerships***

PPPs are a form of long-term contract between a government and a private entity through which the government and private party jointly invest in the provision of public services. PPPs are distinguished from other government private contracts by: the long-term nature of the contract (typically 15+ years); the shared nature of the investment or asset contribution; and the transfer of risk from the public to the private sector.

Under a PPP arrangement, the private sector takes on significant financial, technical and operational risks and is held accountable for defined outcomes. PPPs provide governments with alternative methods of financing, infrastructure development and service delivery. By making capital investment more attractive to the private sector, PPPs can reduce the risk for private investment in new markets and ease barriers to entry.

In the past three decades, governments from low-to high-income countries have increasingly sought long-term partnerships with the private sector to deliver services in sectors such as transportation, infrastructure and energy.

Healthcare partnerships have emerged more cautiously, but have rapidly expanded since the early 2000s. The emerging partnerships have tackled a range of healthcare system needs—from construction of facilities, to provision of medical equipment or supplies, to delivery of healthcare services.

Most PPPs operate under a “DBOT” model (design, build, operate, transfer), under which the private partner is responsible for maintaining the infrastructure throughout the life of the contract. The private partner then transfers this responsibility back to the government upon expiration of the contract. The private partner is responsible for operating the hospital, including services such as laundry and cafeteria. The government retains responsibility for the delivery of healthcare service throughout. The most common form of PPPs in health has been the private finance initiative (PFI) model used to build many hospitals in the United Kingdom.<sup>1</sup>

Since the early 2000s, an increasing number of governments have been exploring more ambitious models such as public-private integrated partnerships (PPIPs), under which the private partner is additionally responsible for delivering all clinical services at one or more health facilities, often including an acute care hospital, as well as one or more primary care facilities. The private partner designs, builds and operates the facilities, and delivers clinical care, including recruitment and staffing of healthcare professionals.<sup>1, 2</sup> This model is commonly called the “DBOD” (design, build, operate, deliver) model.

### **Methodology**

Study researchers conducted qualitative interviews in Spain—mostly in the Valencia region—during September and October 2013. Interviewees included: the Government of Valencia (primarily the Valencia Health Agency); key actors in the five PPIP health departments; employees from Ribera Salud; the Madrid Health Agency and several insurance companies involved in PPPs; members of the Society of Spanish Health Directors; representatives of The World Bank Group/ International Finance Corporation; external advisors to the projects and other key individuals with relevant history and experience with the Valencia PPIP projects. The authors also reviewed grey and peer-reviewed literature on PPPs and PPIPs to inform the study.

### **Audience**

The primary audiences for this report are the governments of low- and middle-income countries (LMICs), including policymakers in ministries of health and finance, who wish to consider PPPs and PPIPs as models for health system strengthening, as well as the wide range of private sector actors who seek to engage with government.

Lessons and findings may also be helpful to others studying how best to leverage the private sector to strengthen health systems, including donor agencies, non-governmental organizations, academic institutions and private health entities.

## Executive summary

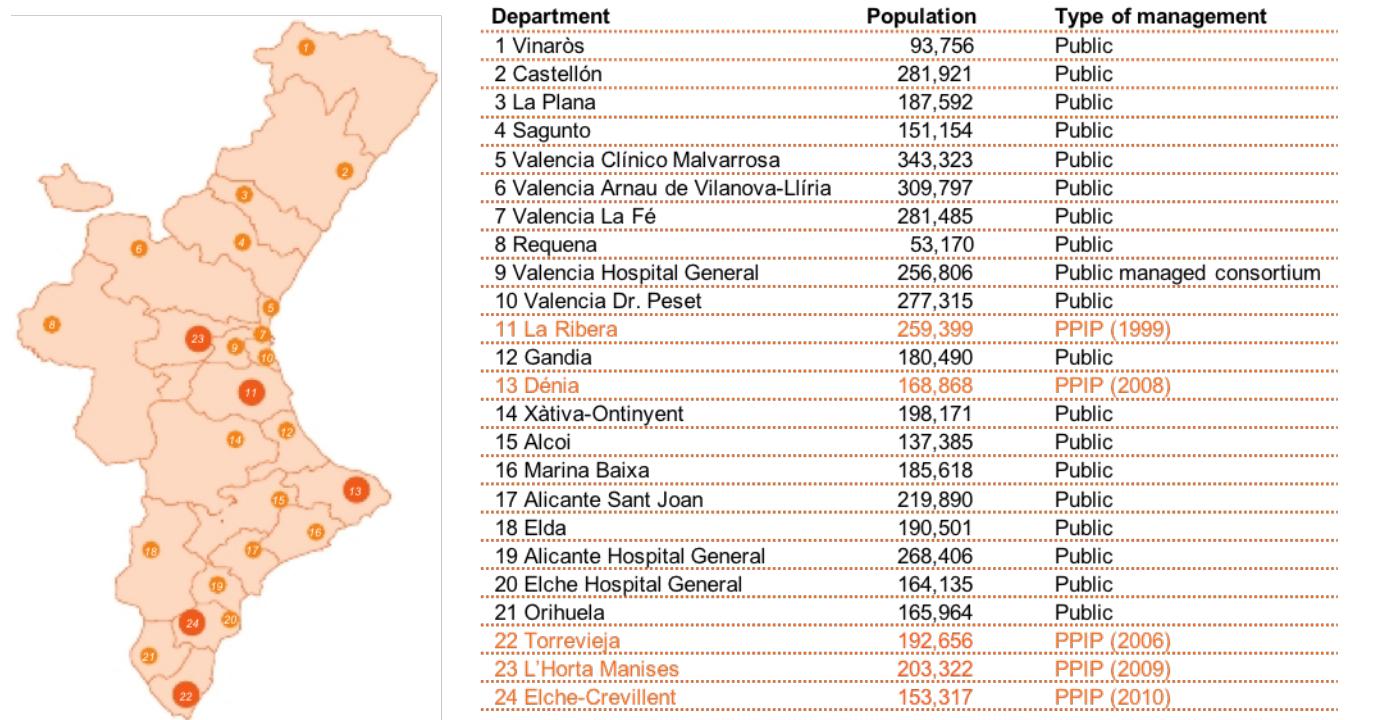
In the late 1990s, the Valencia Community (an administrative region) in Spain embarked on a new model for managing its hospitals, engaging with the private sector to expand capacity and improve quality and cost effectiveness. Since then, the region has continued to lead and innovate in the public-private partnership (PPP) arena—renegotiating its

original project tender to address lessons learned and adapting the original business model to address evolving population, healthcare access and management needs in other facilities.

The rich history of the La Ribera Hospital has been well documented over the last 15 years; the history of the subsequent PPIP projects in

Valencia are less well known. The authors hope that the information included in this report will provide a useful reference for governments, private actors and other policy makers who are considering PPPs as a potential mechanism for improving or expanding healthcare services in their local, regional or national contexts.

**Figure 1: Map of Valencia Community health departments, including the five managed as PPIPs**



Source: Generalitat Valenciana, Consellaria de Sanidad: Data Warehouse SIP, Sistema de Information Poblacional, November 2015: SIP Informe Mensual. <http://chguv.san.gva.es/portal-de-transparencia/poblacion-atendida-e-informes-anuales>, viewed on April 19, 2016

## **Spain – political organization and health system design**

Spain is a constitutional monarchy, with a hereditary monarch and a parliament of two houses—the Cortes. Its 50 provinces are organized administratively into 17 autonomous (self-managed) communities and two autonomous cities, each with its own elected authorities. Following major reforms in the 1980s, the Spanish National Health System was decentralized, with each community's Ministry of Health taking on responsibility for healthcare delivery for its population. Each Ministry of Health is responsible for selecting and employing its preferred delivery model(s); the central government sets overarching policy and provides inter-regional coordination.

In the Valencia Community, located on the east coast of Spain, health services are organized under 24 distinct “health departments,” which were established in 1982 (see Figure 1). Each health department is responsible for providing comprehensive healthcare services, including inpatient, primary and specialty care, for up to 250,000 residents. The health department also provides health promotion, disease prevention and social-health support.<sup>3</sup> In 2003, the Valencia Health Agency implemented a further reform, known as the “one-head” model, under which management

of primary and specialty care for both outpatient and inpatient care—traditionally structured under different functional divisions within the health department—was consolidated under the manager of each health department.

## ***The La Ribera Hospital – innovative public-private collaboration in Valencia***

In 1986, following severe flooding of the Jucar River that left a large portion of the local population without access to healthcare, the Valencia Community Ministry of Health decided to build a new regional hospital in the city of Alzira. Under the innovative leadership of the Health Minister and the leader of Adeslas, a leading Spanish health insurer, the Community embarked on a new vision, of opening the new hospital through a public-private partnership. This new vision went beyond the typical model of engaging the private sector to simply finance and construct a new hospital, and instead contracted the private partner to also manage and deliver clinical services in the new hospital.<sup>1,2</sup> Today this model is often referred to as a public-private integrated partnership, or PPIP. The goal of this new approach was to leverage private sector expertise in hospital management and systems, and use carefully designed payment incentives and performance management clauses in the contract to achieve improvements in efficiency, quality and access to care.<sup>1</sup>

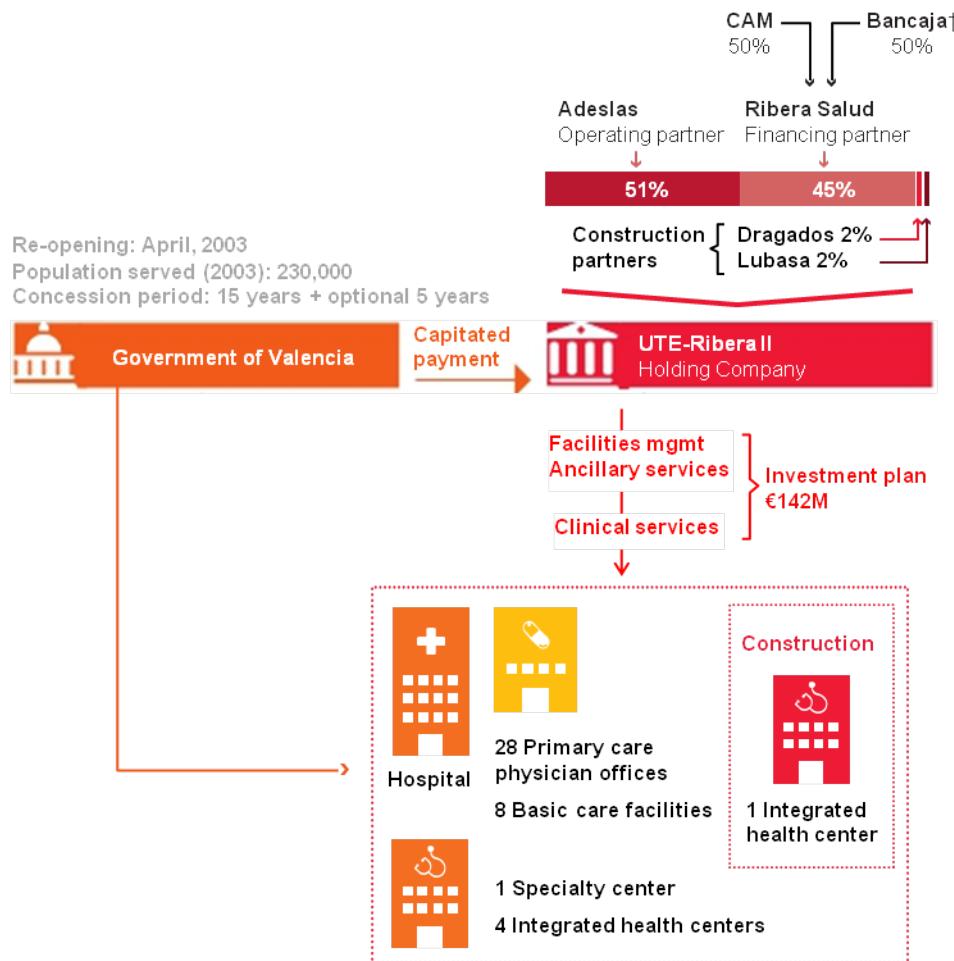
Construction of the new La Ribera Hospital (also referred to as the Alzira Hospital) was tendered in 1997. A private consortium led by Adeslas and financing partner Ribera Salud was contracted to design, finance, build, operate and maintain the hospital, and to deliver specialized clinical care to an initial population of 230,000 residents.<sup>4</sup>

The La Ribera Hospital opened in 1999, with an original contract term of 10 years and financing based on a per capita payment of 204 euros. Although a much more conservative arrangement than the private consortium had expected, it was the maximum that the government would approve at the time.

After three years of operation, the parties agreed to adjust the contract to address several critical sustainability issues. Key design changes included incorporating primary care services from other parts of the health department into the PPIP to help manage patient demand and referrals, and making improvements in infrastructure management. The changes also resulted in an increase in the per capita fee to better finance the expanded operations, and an extension of the contract period to 15 years (with an option to extend to 20 years).

The project was re-tendered in 2002 with these updates; the Adeslas-Ribera Salud consortium was again awarded the contract.

Figure 2: La Ribera PPIP design and configuration, following the 2002-03 re-tender process



Source: La Ribera Department of Health. Activity Report (2012)

† In 2014 Centene Corporation acquired Bancaja's 50% share in Ribera Salud

In 2015 Ribera Salud acquired Adeslas' 51% stake in UTE-Ribera II. The new shareholders of UTE-Ribera II are Ribera Salud (96%), Dragados (2%) and Lubasa (2%).

## ***Money follows the patient***

The Valencia PPIP model approach is based on the principle that “money follows the patient.” The private provider is paid an annual fee based on the size and anticipated health conditions of the population to be served; patients are then allowed to choose where they seek medical care.

The goal of the PPIP model is to achieve the same or better healthcare for 80% of the cost. Thus, if a patient lives in a health department that is run as a PPIP, but chooses to seek care at another public hospital or facility, the PPIP health department must pay the government facility 100% of the cost of the patient’s treatment. However, if a patient lives in a publicly-managed health department and seeks care at a PPIP facility, the government reimburses the PPIP facility for the patient’s care, but only at 80% of the cost. This approach was developed to incentivize PPIP facilities to provide high quality services to attract and retain patients.

To foster patient engagement, each of the Valencia PPIPs implemented significant community outreach campaigns to encourage the use of PPIP hospitals, and educate patients about the services offered.

## ***Innovation roll out***

Building on the initial success of the La Ribera project, the Valencia Ministry of Health decided to replicate and innovate on the model, to address facility and service delivery needs in other health departments.

Between 2002 and 2006 the Ministry issued four additional PPIP tenders, each geared toward a particular regional challenge or circumstance (see Figure 3 and Table 1). Three of the tenders were for new hospitals; one involved the replacement of an aging district hospital. In each case, the 2003 La Ribera Hospital contract was adopted as a blueprint, with adjustments made for the different patient care needs of each health department’s population.

This period was marked by widespread European economic

stability, which allowed the Valencia government to issue new tenders with confidence, and double the population covered by PPIP healthcare services to 18% of the Valencia Community.<sup>5</sup>

By laying out an expansive and longer-term vision for implementing PPIPs across a series of projects, the Ministry was able to promote greater private sector engagement and increase competition for the subsequent tenders.

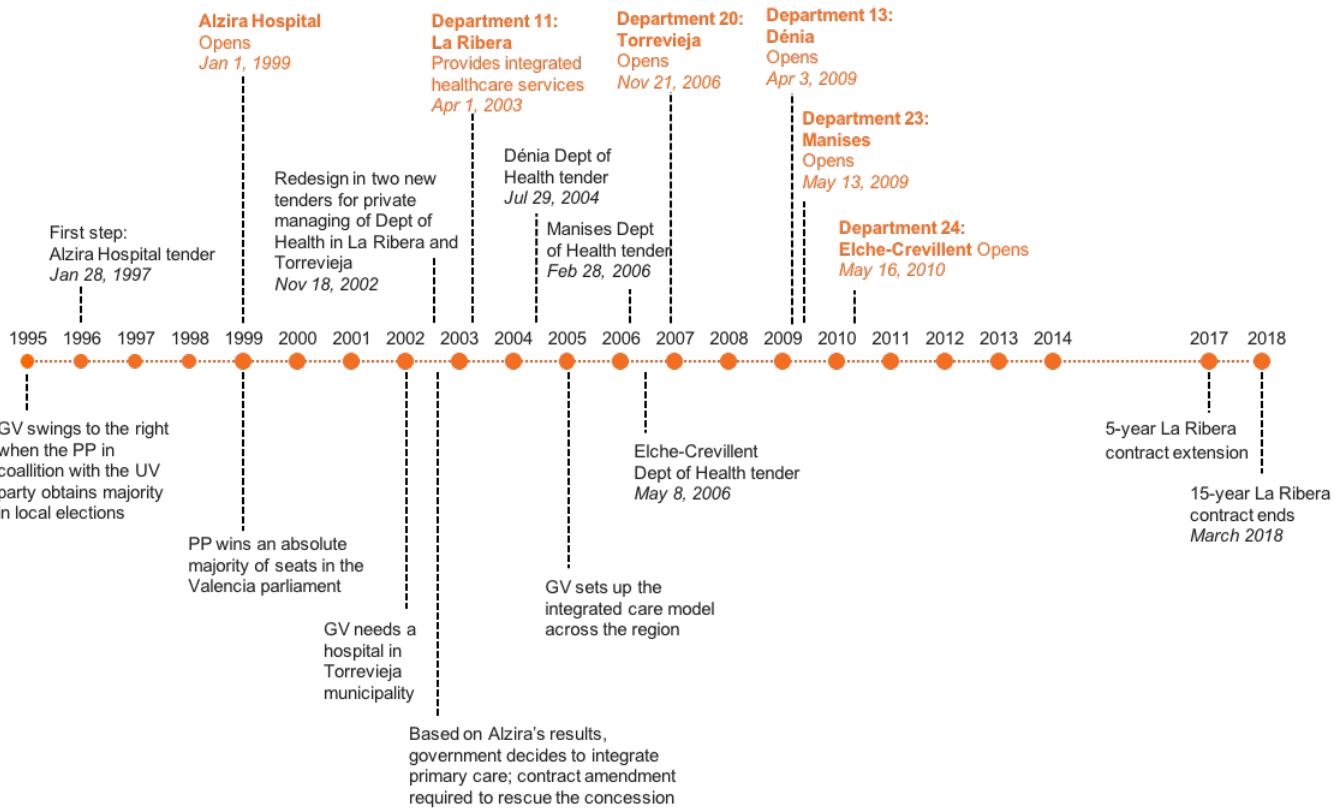
Broader implementation of the PPIP model also required the government to develop additional management skills and capacity to supervise and implement the contracts.

Despite its initial popularity, however, many public entities within Valencia did not support

further expansion of the PPIP management model. Frequent changes in government leadership, followed by the economic crisis in 2008, ultimately halted new funding for PPIPs after 2006.<sup>6</sup>

In the 2015 Regional Elections, Spain’s Popular Party (Partido Popular) lost its absolute majority in Valencia after 20 years. As this report went to print, the new regional coalition government announced that it will not extend the La Ribera Health Department PPIP contract when it ends in 2018. It remains to be seen whether the government will choose to bring the Health Department back under public management, or whether it will pursue a new contract with Ribera Salud or other private parties.

**Figure 3: Timeline of the Valencia PPIP rollout**



GV: Government of Valencia  
 PP: Popular Party (political party)  
 UV: Valencian Union (political party)

Source: UCSF/PwC Fellowship analysis

## **Highlights of the subsequent PPIP projects**

- **Torrevieja** is Valencia's primary tourist destination, with a population that almost triples during the summer. To meet this peak demand, the Valencia Ministry of Health issued the Torrevieja Hospital tender in 2002. Although initially successful, the project suffered from changes to its covered population: in 2007, the Valencia government decided that only residents of the Torrevieja Health Department could be counted toward capitated payments; services rendered for non-residents had to be reimbursed under the "money follows the patient" model where the home municipality of the visitor would reimburse the cost of services to the Torrevieja Health Department.
- **Dénia**. Flanked by Valencia and Alicante, the two largest cities in the Valencia Community, the Dénia Health Department was supported by a small district hospital, insufficient for its growing population and fluctuating tourist population. Residents with specialized treatment needs were regularly referred to hospitals in the larger nearby cities. To address this gap, the Valencia Ministry of Health initiated a tender in 2004 to expand and convert the existing

government district hospital into a PPIP hospital. A challenge in Dénia was the transition of existing hospital staff to the new PPIP.

Following extended negotiations, a solution was agreed to allow existing staff to retain their government status, while all new staff were hired by the private consortium. Through close negotiations and perseverance, this approach largely succeeded. The PPIP also included a significant investment in information technology (IT) infrastructure and systems to help coordinate care.

- **Manises** is a suburb of Valencia that experienced high population growth in the early 2000's, with further projections of future growth. The region's suburban population also suffered a high rate of complex chronic conditions and had become accustomed to seeking treatment at the well-known La Fe Hospital 10 miles away. The Manises PPIP Hospital was tendered in 2006 to address these challenges.

In addition to building a new hospital, the scope of the Manises PPIP contract was expanded over time, to include building of a second general hospital, a chronic disease hospital and a hospital specialty center with 21 medical specialties. This expansion required an aggressive

personnel recruitment strategy. New talent management approaches were employed, including the sharing of staff and schedules across the three facilities.

- **Vinalopó**. Although the Elche-Crevillent Health Department already had a general hospital, population growth demanded additional services. The Vinalopó PPIP Hospital opened in 2010, a few blocks from the existing public hospital. The close proximity of the two facilities opened up care choices for patients and motivated healthcare improvements through competition.

By the time of the Elche-Crevillent/Vinalopó Hospital tender, private sector engagement had been sufficiently stimulated that the project received multiple bidders. Key features of each PPIP are listed in Table 1.

**Table 1: Key features of the Valencia PPIPs**

PPIP health department	La Ribera (Alzira)	Torrevieja	Dénia	Manises	Elche-Crevillent (Vinalopó)
<b>Private partners*</b> (operating/financing)	Adeslas/ Ribera Salud	Asisa/ Ribera Salud	DKV/ Ribera Salud	Sanitas/ Ribera Salud	Ribera Salud/ Asisa
<b>Year tendered</b>	1997/2002	2002	2004	2006	2006
<b>Year opened</b>	1999/2003	2006	2009	2009	2010
<b>Driver</b>	Floods cutting off populations from care	Summer population influx	Need to expand the district hospital	Reduce demand on central hospital	Shrink specialty services gap in the southern part of the health department
<b>Feature/innovation</b>	First PPP to include private management of clinical services	Expansion of the PPIP model	Transformation of a public health department to a PPIP	First suburban health department PPIP	Leveraging economies of scale
<b>Committed investment</b>	€142M	€80M	€96.6M	€137M	€146M
<b>Population served</b>	276,976	222,334	186,907	213,307	161,413
<b>Hospital beds</b>	301	269	266	354**	233
<b>Clinical staff</b>	1,625	1,037	911	883	925
<b>Outpatient facilities</b>	28	23	45	22	15

\* In 2012, Sanitas acquired Ribera Salud's 40% stake in the Manises Hospital. In 2015 Ribera Salud acquired Adeslas' 51% stake in the La Ribera UTE. In 2015 Ribera Salud acquired Asisa's remaining 35% stake in the Torrevieja UTE. In 2015 Ribera Salud acquired Asisa's remaining 40% stake in the Vinalopó Salud UTE.

\*\* The 354 beds in Manises include those of the Mislata Hospital

## Improvements in efficiency

In the years since the five PPIP projects were implemented, the private sector partners continued to pursue major efficiencies. Some of these were achieved through delivering comprehensive healthcare services as required by National Health System reforms; others were accomplished through implementation of outcome-

focused practices, including flexible recruitment, performance incentives, continuous assessment of patient experience and 'loyalty strategies.' The private partners were also able to reduce administrative costs through more comprehensive approaches, including establishment of shared service centers.

Some of these efficiencies were implemented across health

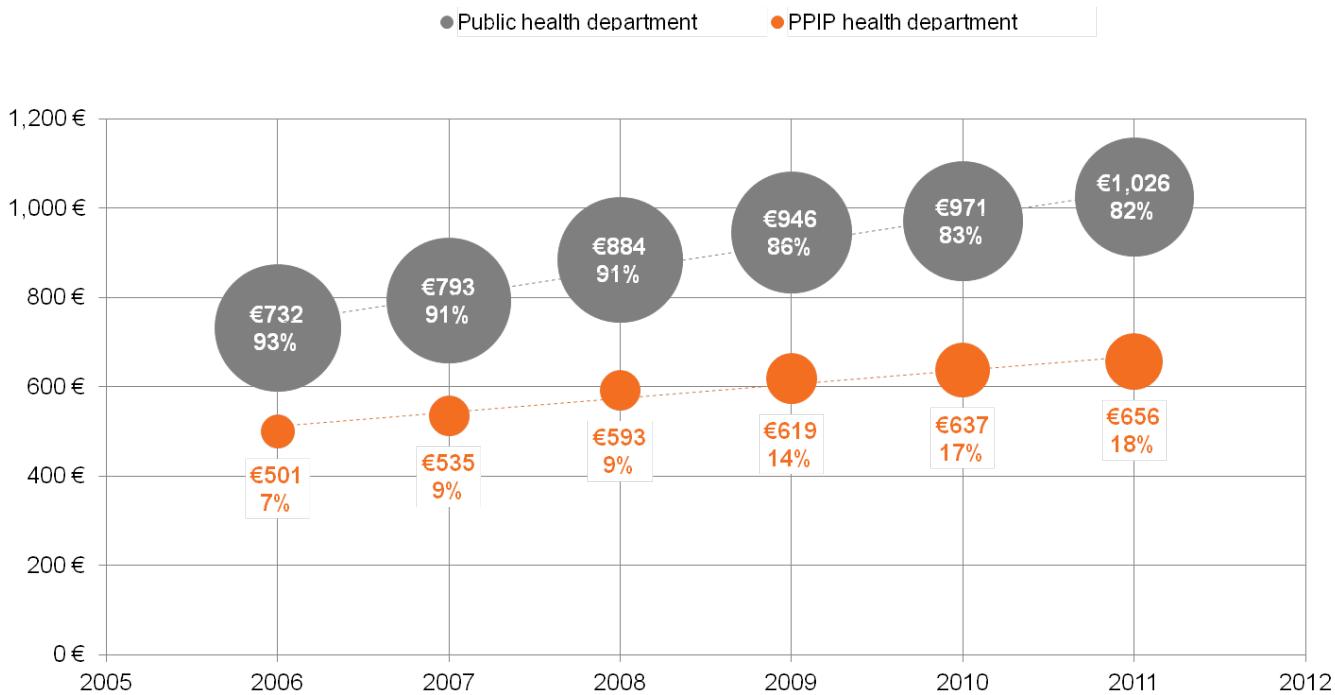
departments—for instance the Dénia Hospital coordinated with the La Ribera Hospital to provide highly specialized care services to their combined populations. Vinalopó and Torrevieja—both managed by the same private entity—institutionalized shared IT, procurement and human resource systems to allow them to coordinate care, share staff across specialty units, and jointly procure medical supplies. All of the PPIP hospitals

also continued to enhance their patient outreach strategies and IT infrastructure to better coordinate primary and specialty care and give patients greater access to, and control over, their health records.

The Valencia Community PPIP model is based on payment of an annual per-person fee linked with the growth of public health spending. To encourage efficiency, the annual per capita fee for each PPIP is set at 80% of the annual government expenditure per person for Valencia citizens.

As envisioned, the five health departments managed as PPIPs have achieved significant cost efficiencies compared to their government-managed counterparts: as of 2011 the five PPIPs were responsible for delivering care to 18% of Valencia's population, yet they accounted for only 13% of health expenditures (see Figure 4).

**Figure 4: Comparison of health expenditures per person in PPIP vs. publicly-managed health departments**



Source: F.Campoy, Jornadas de Economía de la Salud, May 16, 2012

Note: Bubble size represents the percent of the total Valencia population covered by each managerial model

## Strengths and opportunities

In expanding its health services through the PPIP model, the

Valencia Community was able to address key challenges in healthcare delivery and bend the rising curve of medical

expenditures. Its experience, and future opportunities, can be grouped under six major headings (see Table 2).

**Table 2: Valencia PPIP strengths and opportunities**

	Strengths	Opportunities
<b>Information services</b>	<ul style="list-style-type: none"><li>Each PPIP health department has highly reliable information systems with up-to-date patient data that is shared as required with healthcare providers within the department</li></ul>	<ul style="list-style-type: none"><li>Increase sharing of patient services data across all health departments to support and comply with the “money follows the patient” principle</li></ul>
<b>Strategy</b>	<ul style="list-style-type: none"><li>The PPIP model is a resource efficiency-centered model rather than a traditional budget-based model</li><li>Response time to address health issues is shorter due to a less complex management structure</li></ul>	<ul style="list-style-type: none"><li>Establish a benchmarking system to allow comparison and facilitate sharing of best practices among health departments, both publicly and privately run</li></ul>
<b>Government supervision</b>	<ul style="list-style-type: none"><li>Each PPIP has a government Compliance Officer to ensure quality and affordability standards in the delivery of healthcare</li></ul>	<ul style="list-style-type: none"><li>Consider establishing a single government entity to supervise all PPPIPs within the Valencia Community over the lifetime of the concessions, to increase consistency and coordination</li><li>Increase the government's role in planning, sharing lessons learned, and facilitating/encouraging efficiencies such as shared procurement</li><li>Establish an evaluation program to continuously assess PPIP benefits and outcomes</li></ul>
<b>Operational flexibility</b>	<ul style="list-style-type: none"><li>PPPIPs have policies that allow them to be flexible and scalable in human, economic and material resources management</li></ul>	<ul style="list-style-type: none"><li>Implement mechanisms to allow for planned, periodic adjustment of per capita fees to match the changing needs of the covered population</li><li>Ensure that the conditions of the PPIP concession are sufficiently flexible to accommodate changes in the environment without the need for a new contract</li></ul>
<b>People and change</b>	<ul style="list-style-type: none"><li>Investments in health promotion and preventive medicine have reduced healthcare costs</li><li>Promotion of good health practices has generated a long-term engagement effect on PPIP patients with their healthcare</li><li>Human resource policies have aligned employee incentives with the desired outcomes of the PPPIPs</li></ul>	<ul style="list-style-type: none"><li>Increase both government and private partner communications with potential patients around the benefits of the PPIP model in order to increase trust in the benefits of this type of healthcare model</li><li>Some staff do not support the PPIP model; efforts are needed to engage with them about the model and their role in achieving successful outcomes</li></ul>
<b>Communication and sponsorship</b>	<ul style="list-style-type: none"><li>The government maintained a close relationship with the private sector that helps share risk and encourages win-win situations</li></ul>	<ul style="list-style-type: none"><li>Create formal communication channels to demonstrate transparency and achievement of health outcomes to the public</li></ul>

Source: UCSF/PwC Fellowship analysis

## **Conclusion**

Since 1997, the Valencia Community has radically transformed the way in which public healthcare is provided. The PPIP model has allowed it to achieve a significant return on its health investment for nearly 20% of its population, while increasing access to high quality medical care, expanding and upgrading health infrastructure, and encouraging innovative practices for improving healthcare management.

To be successful, PPIPs must be designed around the unique needs of the populations to be served, as well as the strengths and capabilities of the public and private sector players. This success can be furthered through active private sector involvement and strong public sector leadership, coming together to work toward a clear and common set of social and health objectives.

This study of the five Valencia Community PPIPs highlights four main factors for public-private collaboration:

1. Economic stability helps to whet private sector appetite for investment and sustain major government initiatives.
2. Standardized and scalable business models allow greater operational and financial benefits for the government.
3. A capitated funding model, along with the “money follows the patient” principle, allows for predictable health spending for governments, and provides leeway for private partners to increase system quality, efficiency and profitability.
4. Trusted relationships between public and private partners, with appropriate allocation of risk and reward, are critical to long-term project success.

Some members of the public health community have argued that PPIP solutions are not scalable or generally applicable to health systems, especially in politically and economically unstable countries. While these conditions signal the need for careful assessment of the investment, Valencia’s experience in sustaining its PPIPs through two economic downturns demonstrates that PPIP solutions can be viable even in uncertain environments.

Although cost effectiveness research is ongoing,<sup>6</sup> the Valencia PPIP model has achieved positive economic results, while providing high quality healthcare services. It has also demonstrated how the private sector can be leveraged to strengthen public service delivery.

# Introduction

The term public-private partnership (PPP) is used to describe a form of long-term contractual partnership, under which the public sector engages the private sector to provide one or more specified public services.

Since the late 1900s, the Spanish health system has experimented with a variety of models of public-private collaboration to deliver healthcare to its population. Several regions engaged the private sector to access funding and enable the development of health infrastructure through private finance initiatives (PFIs). Others contracted with the private sector to also provide non-clinical services.

In 1997 the Valencia regional government in Spain took these partnerships to a new level, becoming the first region to adopt a more advanced “public-private integrated partnership” (PPIP).

model—contracting the private sector not only to build and operate new infrastructure, but also to deliver publicly-funded clinical health services, while maintaining its position as owner, controller and overseer of healthcare delivery to its citizenry. The approach provided the government with access to capital in the midst of budget constraints and an economic downturn, along with an opportunity to optimize public sector functions through incorporation of private sector business practices.

The rich history of Valencia’s first PPIP—the La Ribera Hospital—has been well documented over the last 15 years. The purpose of this report is to explore the Valencia Community’s subsequent experience in replicating and enhancing the PPIP model in Alzira and four additional health departments, eventually expanding privately-delivered, publicly-

financed care to almost 20% of the Valencia Community population. Overall, PPIP’s in Valencia have succeeded in providing healthcare services that are not only comparable in quality to those of publicly managed services, but also more accessible, efficient and sustainable.<sup>1</sup>

This report discusses the successes and challenges encountered by the five PPIP projects during their rollout in Valencia through 2013, and examines the range of innovations in patient care, management practices, performance management and use of technology put in place to achieve financial efficiencies and improve access to integrated health care for target populations. Finally, the report explores several opportunities for both the public and private sectors, to optimize the success and sustainability of the PPIP model in the future.

## Private management of comprehensive public healthcare services

The PPIP model implemented in the Valencia Community integrates an investment in new and/or refurbished healthcare infrastructure (hospitals and health centers) with the management of all public healthcare services (primary and specialized) by a private partner, to improve the delivery of comprehensive public healthcare services to a predetermined population.

Services provided through the PPIP model include:

- Primary care, including emergency care and oral and dental health services
- Curative healthcare, including specialized hospital and hospital-homecare services, diagnostic testing (where needed), intravenous therapies and surgical procedures, as well as specialized services, including chemotherapy, infertility treatment, invasive radiology, radiation therapy, and organ, tissue and cell transplants
- Health promotion and protection initiatives, as well as preventive programs based on health education, vaccination coverage and medical check-ups
- Rehabilitation support, combining a variety of existing specialties, products and supplies
- Socio-health care for disabled patients and the elderly, as well as psychiatric and mental health care

*In Valencia, the PPIP model explicitly excludes the provision of medicines outside hospital facilities, and does not cover the cost of prostheses, oxygen therapy and healthcare transportation.*

## Country profile – Spanish health & economic context

Situated on the Iberian Peninsula, Spain is the third largest country in Western Europe. Its territory includes the Balearic Islands, the Canary Islands and two autonomous cities in North Africa, Ceuta and Melilla.

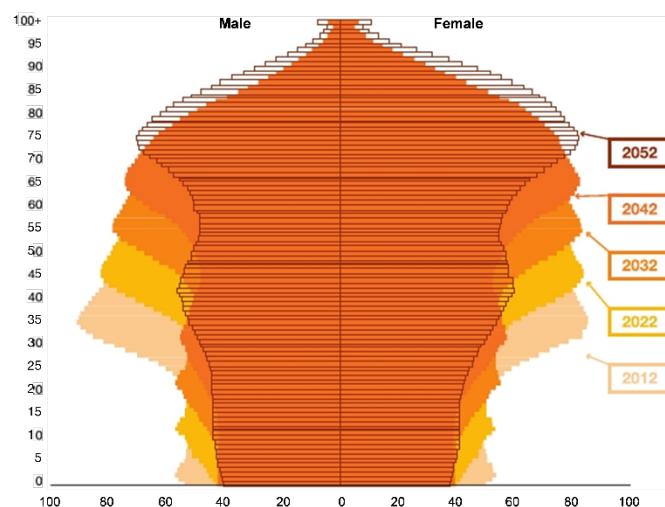
Spain is a constitutional monarchy, with a hereditary monarch and a parliament of two houses—the Cortes. It is divided administratively into 17 autonomous communities (regions), each of which is governed by its own directly-elected authorities. As of 2015, the population was estimated at 48 million, with an average growth rate of 0.5%, or 4 million people over the previous 10 years.<sup>7</sup> While the birth rate in recent years has shown a downward trend (estimated at 1.3 births per woman) the mortality rate has remained stable. Population growth has instead been driven by

immigration, with immigrants constituting 9.6% of the total population in 2015.<sup>8</sup>

With an average age of 41.4 years, the Spanish population is aging. Immigration has helped slow the rate of aging in recent years; however, current projections

indicate that the mortality rate will overtake the birth rate in 2018. Together with a projection of decreasing levels of immigration, this will result in an increased old-age dependency ratio, as shown in Figure 5.

**Figure 5: Demographic distribution in Spain, 2010-2050**



Source: National Institute for Statistics. 2013. [www.ine.es](http://www.ine.es)

The majority (79%) of the Spanish population lives in urban areas where climate, levels of economic development and employment opportunities are more favorable.<sup>7</sup> As of 2014, the principal cities in Spain were Madrid (3.2 million people), Barcelona (1.6 million), Valencia (0.8 million) and Seville

(0.7 million).<sup>9</sup> A characteristic feature of the Spanish economy is the predominance of the service sector, which employs about six out of 10 economically active people and represents 74.4% of gross domestic product (GDP). The second largest sector—industry—

represents 23.1% of GDP, while the third largest—agriculture—is of marginal importance. Within industry, metallurgy, food and transportation have shown the highest growth rates in recent years.<sup>10</sup>

**Table 3: Spain summary statistics, 2015 (most recent available unless otherwise noted)**

Economy*		Health Expenditures**	
Gross domestic product (GDP)	\$1,636T USD	Total expenditures on health as % of GDP	9.0% (2014)
GDP per capita	\$35,200 USD	% Public	6.39% (2014)
Population	48.15M	% Private	2.62% (2014)
Unemployment rate	22.5%	% of Private expenses that are out-of-pocket	82.38% (2014)
Population below the poverty line	21.1% (2012)	Per capita expenditures on health (USD)	\$2,658 (2014)
Median age	42 years		
Health status		Health resources	
Life expectancy at birth***	83.1 (2014)	Total hospitals****	855 (2013)
Cause of death***		% Public	47% (2013)
Communicable diseases and maternal, prenatal and nutrition conditions	4.7% (2012)	% Private	53% (2013)
Injury	3.4% (2012)	Hospital beds per 1,000 population*	3.1 (2011)
Non-communicable diseases	91.8% (2012)	Physicians per 1,000 population*	4.94 (2013)

Sources: \*CIA The World Factbook, \*\*World Bank, \*\*\*Organization for Economic Co-Operation and Development (OECD), \*\*\*\* Institute for the development and integration of health, 2015

## Economic context

After weathering the global economic recession of 1992-93, Spain stood out for its rapid growth rate, its high level of capital accumulation and its rapid job creation, especially in the construction sector, which represented between 6-11% of GDP. However, after almost 15 years of better-than-average GDP growth, investment in the construction sector led to a speculative bubble, which burst in 2007. This slowed the economy and Spain officially entered into recession in 2008. GDP shrank 3.7% in 2009 and, despite various fiscal and labor reforms, a high unemployment rate (25% in 2012) and weak consumer spending impeded recovery.<sup>9</sup> Nonetheless, it is expected that Spain will grow 2.8% in 2016 and 2.1% in 2017.<sup>11</sup>

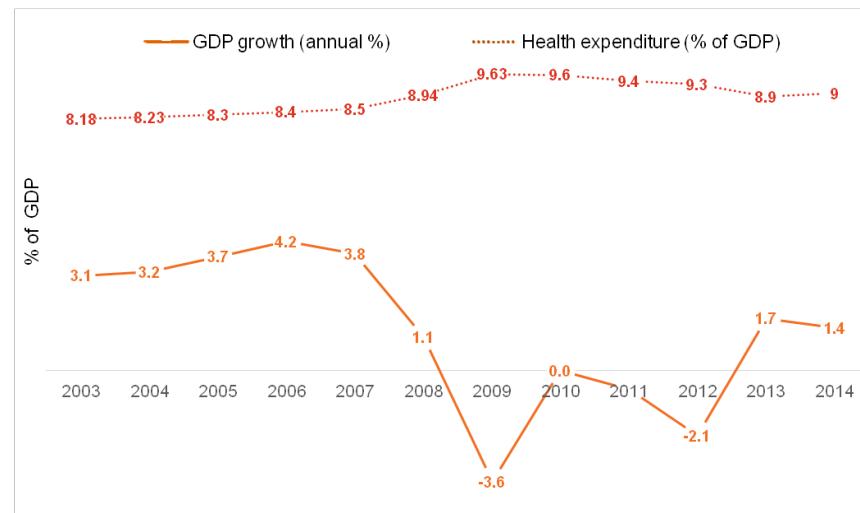
Up until 2007, Spain boasted a budget surplus of 1.9%, with public debt amounting to 36.1% of GDP. In the wake of the 2008-09 economic crisis, however, the lack of employment and the downturn in consumption led to a budget deficit equivalent to 11.2% of GDP by the beginning of 2010. A number of austerity measures managed to reduce this deficit by 5.7% by the end of 2014.<sup>12</sup>

From the beginning of the recession, the Spanish government instituted a number of measures to stimulate growth and job creation by encouraging transparency, flexibility and competitiveness. At the same time, it promoted programs to streamline the welfare state, reduce costs and assure the sustainability of the social safety net, with a particular focus on austerity measures across the 17 autonomous communities.

The health sector faced similar changes, with costs growing almost three times as fast as GDP during 2000-10. This was due in part to an

aging population and the development of expensive technologies; it was also a consequence of greater access to more effective medicines, which prolonged the lives of the sick and enhanced their quality of life. To address the situation, the government suggested a range of cost-containment measures, including the closing of facilities, wage cuts, price controls for laboratories, co-payments for medicines and further public-private collaboration to offset the lack of public resources.

**Figure 6: Changes in GDP and health spending in Spain since 2003**



Source: The World Bank, 2015. World Data Bank. <http://www.worldbank.org>

## **Spanish National Health System fundamentals**

The Spanish National Health System, considered one of the most advanced in the world, is committed to improving health standards and reducing social inequality. In 1986, as mandated under the Spanish Constitution of 1978 to assure universal healthcare, the Spanish government streamlined healthcare services, integrating the functions of regulation, financing and delivery of services.

The National Health System was consolidated under government leadership as a coordinated group comprised of three levels:

- **Central Government**—responsible for national coordination, policy regarding medicines, matters of international health and the management of healthcare services in the cities of Ceuta and Melilla.

- **Inter-Regional Council**—responsible for coordination, cooperation, communication and information sharing among regional agencies and with the Central Government.
- **Autonomous Communities**—responsible for healthcare planning, public health initiatives, and healthcare service management and delivery.

Some high-specialized services and a portion of pharmaceutical provision remained under the responsibility of the Central Government through general taxation.

Following a 20-year process of decentralization and reform that concluded in 2002, each of the 17 autonomous communities assumed operational and financial responsibility for the health of its population. Since then, the Central Government has allocated 38% of direct and indirect taxes to the

governments of the autonomous communities, allowing them greater leeway in managing their resources and entrusting them with the organization and provision of healthcare services.<sup>13</sup> Each of the autonomous communities has assigned a ministry of health, charged with regulation, healthcare policy planning, and the provision of both primary and specialized medical services.

Today, the majority of healthcare services is delivered free of charge by public providers, with a 40% co-payment for the purchase of medicine by those under 65.

### ***Underlying fundamentals of the Spanish National Health System***

- Publically-funded system, providing universal and complimentary services (oxygen, ambulances, assisted care, etc.)
- Well-defined rights and obligations for both users and government authorities
- Responsibility for healthcare service delivery decentralized to the 17 autonomous communities
- Provision of comprehensive healthcare with a goal of providing high-quality services
- Healthcare assessment and regulation in a common system mandated by the government
- Incorporation of structures in favor of health under the National Health System (consortia, public-private collaboration, etc.)

## Organization

Within each autonomous community, the healthcare system is subdivided into smaller health 'areas,' or departments, based on geographic, socioeconomic, cultural and epidemiological factors—each serving a population of about 200,000-250,000 residents. Each

health department is then divided further into 'basic health zones' which serve as the gateways into the healthcare system. Each zone includes a primary care team, which provides services to patients in its territory and refers those requiring more specialized care to specialty centers or hospitals.

The health departments serve as the functional units of the healthcare system, and are responsible for managing the basic health zones, together with a range of specialty centers, hospitals, and public health programs.<sup>3</sup>

**Figure 7: Organizational design of Spain's National Health System**



The Spanish **Ministry of Health and Social Policy** develops national health policy around planning and delivery of services, and represents the general administration of the state in ensuring all citizens the right to protection of their health.



The **Interterritorial Council** is responsible for general coordination between the central government and the autonomous communities for issues relating to health policy (contracts, acquisition of health products (such as medicines and orthotics) and related goods and services, as well as basic health personnel policies).

### *Autonomous community health service*

Healthcare planning, financing and delivery for each of the 17 autonomous communities is managed by each community's ministry of health. Financing from tax revenues is allocated by the national government.



#### **Health areas / departments**

Each autonomous community is subdivided into health 'areas' or departments that coordinate and deliver healthcare to populations of 200,000-250,000 residents. Health department boundaries are determined based on geography, and the cultural, demographic and economic distribution of the population.

#### **Basic health zones**

Each health department is comprised of several basic health zones, which provide primary care services to subsets of the health department population and coordinate referrals for hospital or specialty care.



- Hospital



- Integrated health centers
- Specialty centers
- Social-health centers



- Primary care physician offices
- Basic care facilities

Source: General Health Law 14/1986 and Law of Cohesion and Quality of the National Health System, 16/2003

## **Types of public-private collaboration in healthcare**

The majority of healthcare infrastructure in Spain belongs to the government, including over 90% of primary care centers and 67% of hospital beds.<sup>14</sup>

Nonetheless, the autonomous communities are allowed to contract with private services based on regional need, for instance to

increase access, reduce wait times, and/or optimize the use of resources. In 2015, the Institute for the Development of Comprehensive Healthcare (IDIS) estimated that almost 12% of the government's health budget was earmarked for such relationships.

On average, 15%-20% of hospital services are delivered by the private sector nationally.

The independent authority of the autonomous communities has enabled them to develop their own organization, management and planning policies, leading to the emergence of 17 healthcare models in Spain. However, this diversity has not led to significant differences in the level of services, nor in the type of treatments that the government is committed to provide to the population.

**Table 4: Most common forms of healthcare public-private collaboration in Spain**

Type of collaboration	Description	Purpose
Administrative mutualism	Mechanism to ensure healthcare coverage to public servants and judicial armed forces personnel. Individuals can choose whether they are cared for by the public or the private sector.	<ul style="list-style-type: none"><li>• Fund and/or provide health services for government employees with social security</li></ul>
Arranged hospitals	Agreements with a private provider, made by the government through a competitive process, to provide specific health services and procedures in exchange for a set fee	<ul style="list-style-type: none"><li>• Improve healthcare access to remote communities</li><li>• Relieve waiting lists</li><li>• Provide highly-specialized and costly services</li><li>• Provide care to specific populations</li><li>• Increase compliance with government health-related goals</li><li>• Develop and implement specific assistance programs</li></ul>
Unique concerts	Private hospitals that have been strategically linked to the public system to fill gaps in public providers; the hospitals receive a payment for every service they provide	<ul style="list-style-type: none"><li>• Respond to a health need on a case-by-case basis without increasing public debt</li></ul>
Administrative concessions (PPPs/PPIPs)	Partnerships between the public and private sectors to design, finance, develop, build and operate infrastructure projects, and deliver healthcare services, through a concession contract	<ul style="list-style-type: none"><li>• Engage private sector to assume the financial and operational risks of financing infrastructure and delivering care</li><li>• Increase efficiency and quality through performance management</li></ul>

Source: UCSF/PwC Fellowship analysis

# Valencia's PPIP model

## The Valencia Community

The autonomous community of Valencia is situated along the east coast of Spain, bordering the Mediterranean Sea. With a population of slightly more than five million, Valencia is a primary tourist and retirement destination for people from all over Spain and Europe. These factors present unique challenges in providing healthcare and setting health policy, as the tourist and retiree populations typically have a different epidemiological profile than the local population, and demand healthcare services that place an additional economic and social burden on the local healthcare system.

As part of the national goal to decentralize healthcare delivery, the Valencia government assumed responsibility for the health and quality of life of its population in 1987. This required not only ensuring a stable, equitable and adequate provision of healthcare services, but also monitoring and managing of health resources.

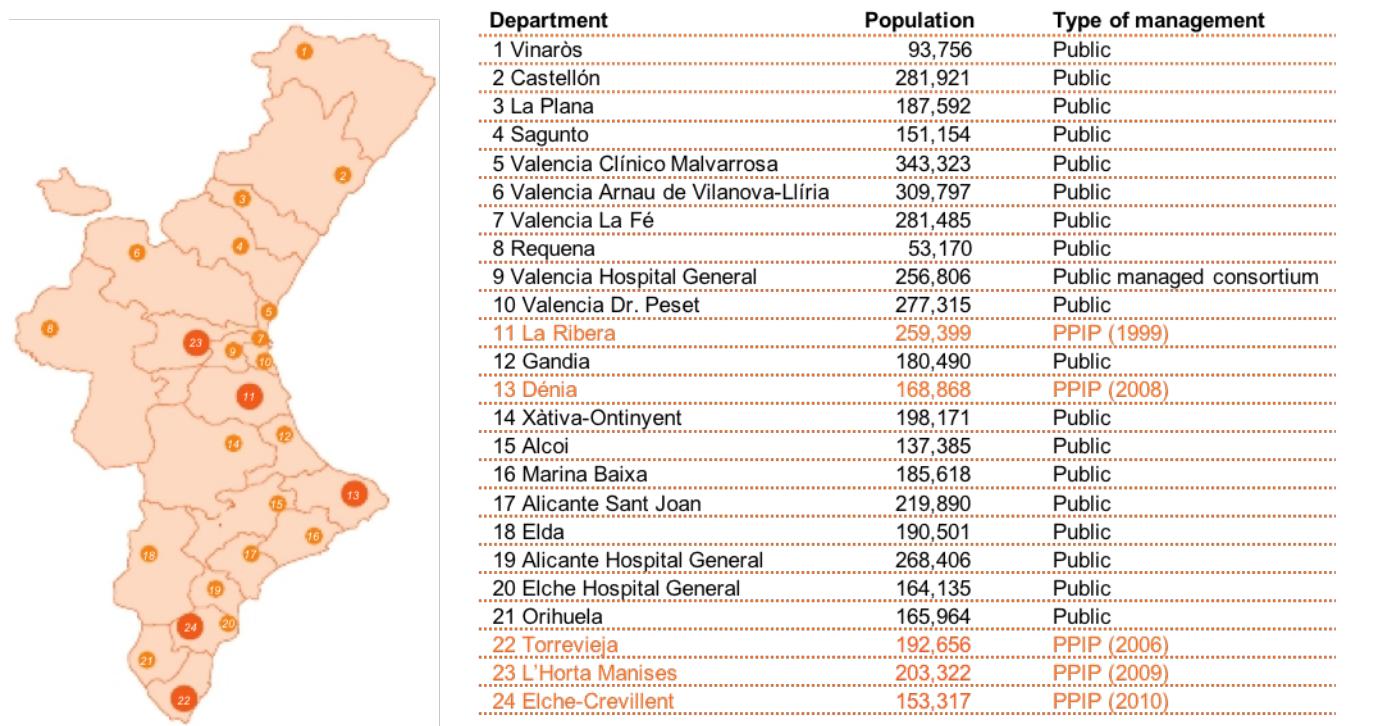
Figure 8: Map of the 17 autonomous communities of Spain



To support these tasks, the national government issued a range of laws (Law 6/1997 and Law 15/1997) allowing for the provision of healthcare and socio-health services through either its own resources or through partnership agreements with the private sector.

Subsequently, in 2003, the government created the Valencia Health Agency, an autonomous government body attached to the Ministry of Health, and tasked it with developing the community's healthcare management model.

**Figure 9: (revised): Map of Valencia Community health departments, including the five managed as PPIPs**



Source: Generalitat Valenciana, Consellaria de Sanidad: Data Warehouse SIP, Sistema de Information Poblacional, November 2015: SIP Informe Mensual. <http://chguv.san.gva.es/portal-de-transparencia/poblacion-atendida-e-informes-anuales>, viewed on April 19, 2016

## ***Innovation in Valencia***

### **Origins of the PPIP model**

The geography of the Valencia Community and its position by the Mediterranean Sea provides the Community with important waterways that have historically helped to spur economic activity. However, powerful floods have also dramatically transformed the region. Located to the south of the city of Valencia, the Jucar River crosses the region, separating the farming districts in the north from the coastal districts in the south. The 20th century witnessed

numerous floods along the river, notably those of 1982 and 1987, affecting around 200,000 residents.

Historically, the relative proximity of the La Ribera Health Department to the city of Valencia allowed La Ribera residents to seek hospital care in the city. However, the Jucar River floods in 1982 and 1987 cut off all access to the city, and forced the government to erect a field hospital to assist those affected. The need for a hospital on the south side of the river was

evident; however, the government lacked the resources to build one.

***“...and it’s true that the (Jucar) river would rise and overflow its banks every year... it is also true that every five or six years the flood would shake houses loose from their foundations, destroy good farm land, drown people, and commit other horrible depredations...”***

***Vicente Blazco Ibañez***  
*Entre Naranjos, 1904*

The situation changed with the arrival of a new Valencia government in 1995, which brought with it new ideas about public service management, and new interest in partnerships between the private and public sectors. On the public side, Valencia Health Minister Dr. Joaquin Farnós was committed to improving access to healthcare, expanding healthcare infrastructure and optimizing health resources. In a radical move, he introduced a business management approach to implementing health policy, which consisted of leveraging government capabilities through the private sector. He was aided on the private side by Dr. Antonio Burgueño, Medical Director of Adeslas, a leading Spanish health insurer and an active participant in national health reform, who had developed a comprehensive new outcome-oriented management system for his company.

Together, the two leaders crafted a new vision for healthcare delivery in Valencia that would leverage the efficiencies and new management practices employed in Dr. Burgueño's new management system to deliver quality health services to residents in the Jucar River flood zone at equal or lower cost than the government otherwise could. The model would be implemented through the construction of a new hospital in the city of Alzira in the La Ribera Health Department. Under the new model, the government would

engage a private insurance company to finance and construct the new hospital under a five-year investment plan, and engage a private company to manage the hospital's healthcare services. To finance the investment, the government would pay the private parties an annual per capita fee for each of the 230,000 residents who would receive care at the new hospital. In an effort to make the La Ribera project a success, the government and Adeslas sought the support of local savings banks to lend financial security throughout the project.

Building on Dr. Farnós' vision, and drawing, in part, on the experience of the La Ribera Hospital concession described in this report, the new healthcare management model combined management of comprehensive primary and specialized care services within each health department under a single management structure. Dubbed the "one head" model, this new structure was financed on a capitated (fee per person) basis. The model also incorporated principles of management by objective, and established an analytical accounting system based on inter-(health) department billing to manage the cost of delivering care to residents who sought services outside their assigned health department (see "money follows the patient" text box on page 11).

Based on the success of the La Ribera Hospital concession, the Valencia Health Agency rolled the "one-head" model out to all 24 health departments in the community in 2003. Under the new model, the 24 health departments began operating under a new management system of "Unified Management Groups" (*Gerencias Únicas*) where a single structure was established to coordinate both primary and specialized care under a common health policy. The new approach ensured that each health department would engage in appropriate primary care planning, implement priority health programs linked to specialized care services, and establish integrated public health strategies.

To achieve these objectives today, the Valencia government currently allocates more than 40% of its budget to healthcare,<sup>15</sup> with each health department entitled to use these resources to develop services as needed in order to meet the healthcare needs of its population.

### Initiating the model – the La Ribera Hospital PPIP concession

In 1997, the La Ribera Hospital concession was awarded to Ribera Salud Temporary Union of Businesses (UTE-Ribera), a private consortium comprised of Adeslas as the healthcare delivery partner, Ribera Salud (a partnership of three banks) as the financing partner, and two construction companies (see Figure 10).

Although Adeslas estimated the necessary per capita payment for the project at 225 euros, the Valencia government chose to use as its benchmark a hospital in a similar health department with a per capita cost of only 204 euros, and required Adeslas to comply with the lower fee. The legislature also insisted on a contract period of 10 years, rather than the 25 to 30-year term proposed by Adeslas to allow them to amortize the investment. The financial terms and duration of the project were agreed in 1997, and the new hospital opened in 1999.

### Adjusting the model

After three years of operation, it became clear that the La Ribera Hospital concession as implemented was not financially viable. In addition, although the concession broke new ground by engaging a private consortium to construct the new hospital and operate its clinical and non-clinical

services, Dr. Farnós and Dr. Burgueño's vision had been broader, assuming that the private consortium would be able to manage its patients' health in a holistic manner. By only focusing on hospital and specialty care, the La Ribera Hospital concession gave Adeslas little control over primary care and referrals—key drivers of its operating costs.

In an unprecedented display of confidence, the Valencia government sat down with Adeslas at the beginning of 2002 to redesign the contract. As shown in Figure 10, the scope was expanded to include management of primary care services, and construct and operate a new integrated health center in the nearby town of Sueca. The covered population was also enlarged to reflect updated population figures.

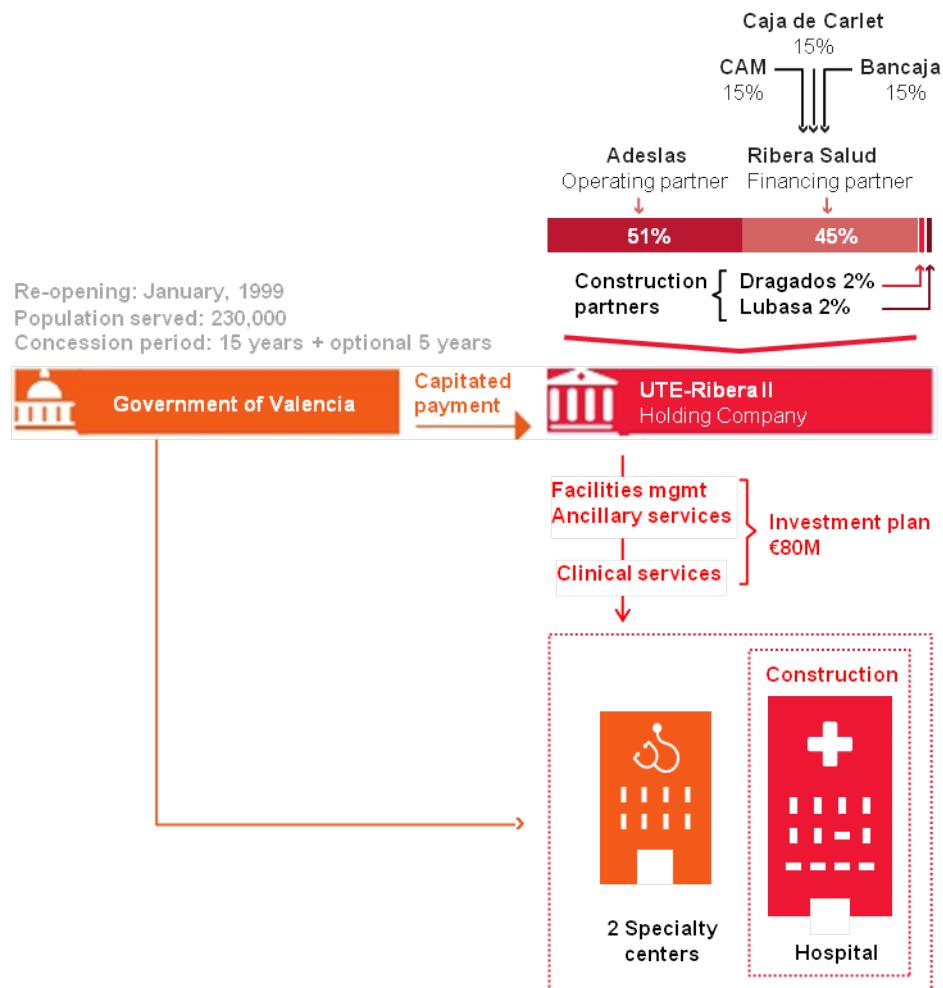
With these changes, all public health services for the La Ribera Health Department were now

consolidated under private management. The project was re-tendered, and again awarded to the UTE-Ribera consortium at a price of 72 million euros. The per capita fee was revised to 379 euros to cover the operating costs of the expanded project and the amortized costs of constructing the original hospital and new comprehensive healthcare center. The contract period was also extended to 15 years, with an option to extend to 20.

As the private consortium was now responsible for all healthcare across the health department, the concession was subject to strict government control. A Health Commissioner was thus appointed to represent the Ministry of Health and oversee the use of resources, the different levels of services and general operations across the health department.

**Figure 10: La Ribera PPIP design and configuration, 1997 vs. 2003**

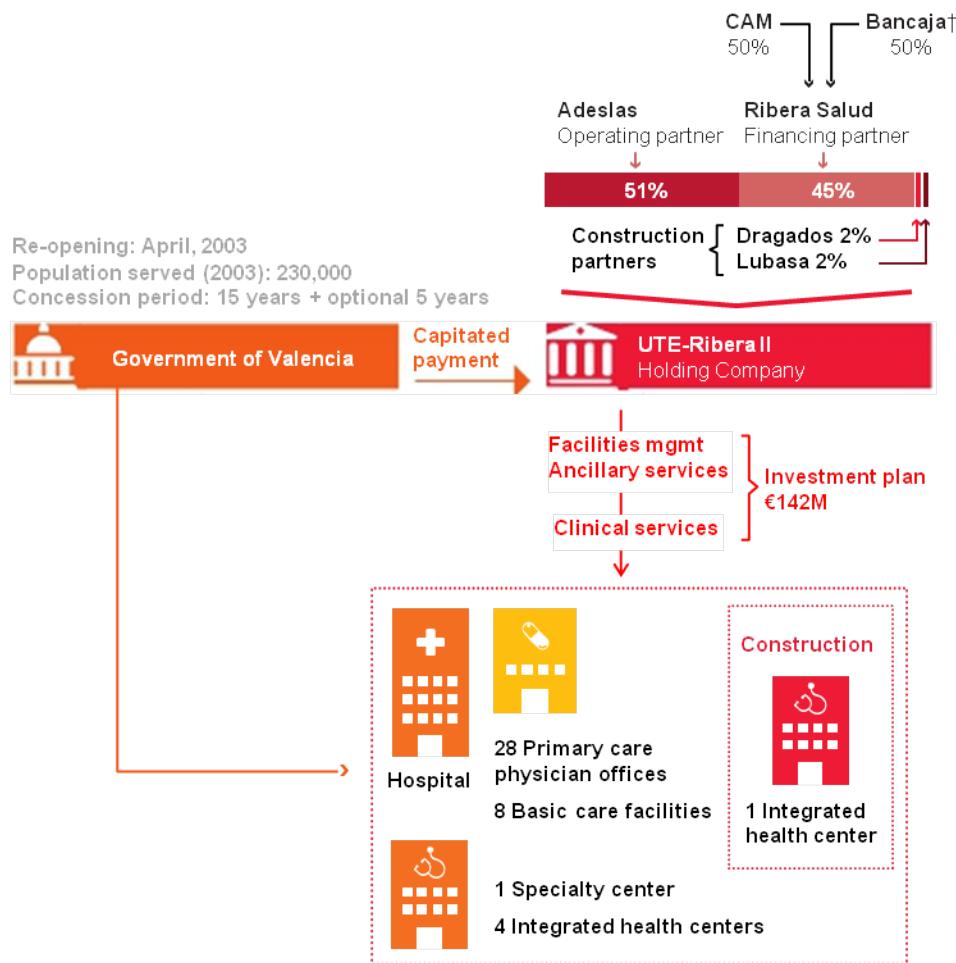
**Hospital de la Ribera, 1997**



Source: La Ribera Department of Health. Activity Report (2012)

Figure 10, continued

La Ribera Health Department 11\*, 2003



Source: La Ribera Department of Health. Activity Report (2012)

\*The La Ribera Health Department was re-numbered from 10 to 11 during this time, due to an unrelated addition of a new health department in Valencia

† In 2014 Centene Corporation acquired Bancaja's 50% share in Ribera Salud as part of an effort to internationalize its managed care model.

In 2015 Ribera Salud acquired Adeslas' 51% stake in UTE-Ribera II. The new shareholders of UTE-Ribera II are Ribera Salud (96%), Dragados (2%) and Lubasa (2%).

**Table 5: La Ribera Hospital and La Ribera Health Department PPIP concessions – comparison of RFP terms**

	Hospital de la Ribera, 1997	La Ribera Health Department 11*, 2003
<b>Tender announcement</b>	January 28, 1997	November 18, 2002
<b>Opening date</b>	January 1, 1999	March 1, 2003
<b>Contract duration</b>	10 years, with option to extend to 15	15 years, with option to extend to 20
<b>Objective</b>	Provide inpatient and outpatient specialized health services to a population within Health Department 10	Provide comprehensive healthcare services (primary and specialty care and hospital services) to all of new La Ribera Health Department 11
<b>Population served</b>	230,000 residents of the villages that comprise Health Department 10	232,750 residents of the La Ribera Health Department 11
<b>Services</b>	Provide all services included in the Valencia Health Agency's basic healthcare services catalog for specialized care, and manage the public specialty centers in the area	Provide all services included in the basic healthcare services catalog and manage all public healthcare facilities within the Health Department
<b>Facilities investment</b>	Construction of a general hospital	Construction of a specialty center
<b>Eligible bidders</b>	Health insurers or health providers in partnership with a construction company	Health insurers or health providers
<b>Bid evaluation criteria</b>	Project proposal (30%) Economic proposal (25%) Service transfer index (20%) Economic solvency (10%) Technical solvency (15%)	Project proposal (40%) Investment plan (35%) Capita fee (15%) Service transfer index (10%)
<b>Economic proposal</b> (items assessed)	Investment amount Capita fee Service transfer index	Investment amount Capita fee Service transfer index Government guaranteed an initial payment of €72 million to cover costs to buy out the 1997 investment
<b>Per capita fee limits</b>	Maximum price of €204 per person, based on operating costs of a similar hospital; Price to be adjusted annually according to the consumer price index	Maximum price of €379 per person. Bidders could bid no less than 88% of the maximum price (adjusted annually), using the average increase in public spending on health as the maximum price, and the consumer price index as the minimum.
<b>Transfer coefficient</b>	Bidder must commit to serving patients at a cost of no more than 80% of the average cost of publicly-delivered care in the region	Bidder must commit to serving patients at a cost of no more than 80% of the average cost of publicly-delivered care in the region. Bidder must commit to providing care to patients from other health departments, but at a reduced reimbursement rate.
<b>Fee for use of existing public facilities</b>	N/A	2% of property value (excludes facilities constructed under the concession)
<b>Limiting clause</b>	N/A	7.5% annual return on investment (ROI)

Source: Valencia Ministry of Health

\*The La Ribera Health Department was renumbered from 10 to 11 during this time, due to an unrelated addition of a new health department in Valencia

## Key features of the new model

### A spur for innovation

The La Ribera Hospital project in Alzira represented the epitome of innovation when it was rolled out in 1997 as the first private concession in public health in Spain. From the beginning, its objective was to leverage private investment to improve access to public health services, while employing business management methods to enhance the sustainability of the health system.

The rescue of the concession three years later provided an ideal moment, not only to make changes

in the management of the larger health department, but also to apply lessons learned to transform the structure of the Valencia healthcare system overall, including aligning management of inpatient and outpatient care under the Unified Management Group model, and establishing a basic catalog of services that all health departments were charged with providing.

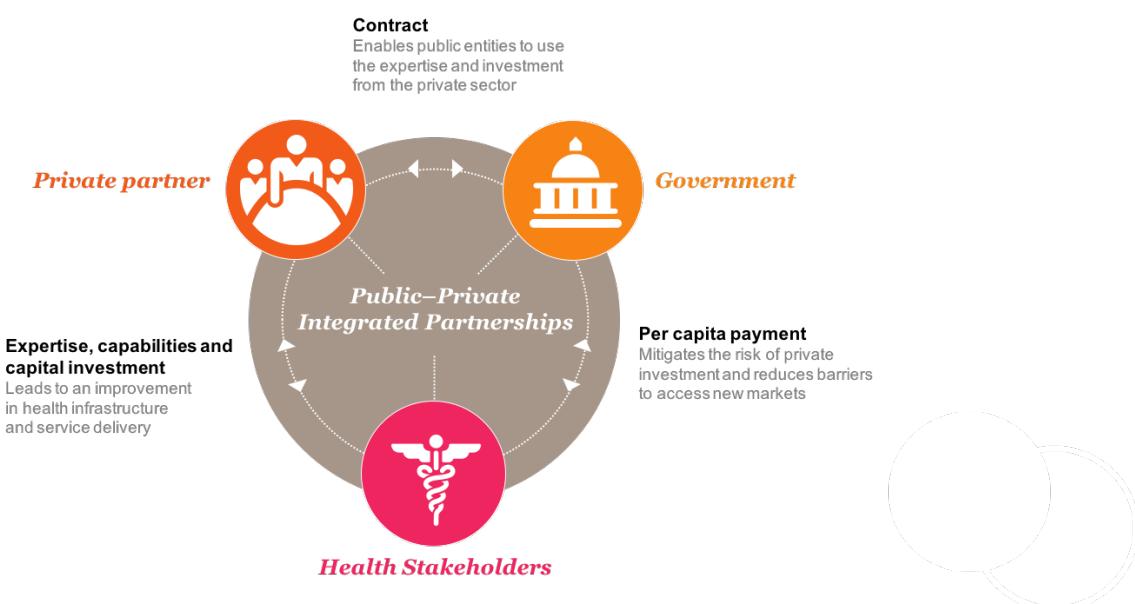
Ultimately, the experience led to a new model for integrated healthcare management in the Valencia Community. The success of the model not only influenced the design of all Valencia Community health departments, but also inspired other public

health departments to pursue their own efforts to become more efficient.

The La Ribera project's success also gave the Valencia government confidence to replicate the PPIP model in four other health departments: Elche-Crevillent, Dénia, Manises and Torrevieja, described later in this report.

The following pages highlight facets of the La Ribera PPIP that became key elements of the Valencia PPIP model, and inspired new structures and efficiencies across the broader Valencia Community.

**Figure 11: Collaboration mechanism within the new model**



Source: UCSF/PwC Fellowship analysis

## Transfer of risk and responsibility

In an effort to contain costs and achieve greater performance in health care delivery, the La Ribera PPIP built on the private finance initiative (PFI) model (used by the British National Health Service to rapidly expand its healthcare infrastructure in the 1990s) to

include the delivery of clinical services. The new model shifted not only the risk of financing, building and maintaining the new hospital to the private party, but also the risk of managing all clinical and non-clinical services. Under the 2002 contract redesign, this risk was further expanded to include operation and maintenance of

additional primary care centers, along with management and delivery of comprehensive healthcare for the population of the entire health department. Table 6 shows in detail the contracted risk and responsibilities taken on by the government and private consortium in this new model.

**Table 6: Summary of contracted risk and responsibility**

Types of risk and responsibility	Government	Private partner
Performance	Shared	Shared
Responding to changes in laws and regulation*	Shared	Shared
Procurement process	Owner	
Project financing	Shared	Shared
Construction/refurbishment of facilities		Owner
Operational and financial risk	Oversight	Owner
Interest rate volatility	Oversight	Owner
Definition of population to be served	Owner	
Technology risk		Owner
Service performance	Oversight	Owner
Human resource management	Oversight	Owner
Efficiency levels	Shared	Shared

Source: UCSF/PwC Fellowship Analysis

\*Includes changes in tax regulation

## Terms of association

The public-private relationship underlying the La Ribera Hospital PPIP model is defined by a series of “works and services” contracts, under which the private consortium is charged with managing and delivering comprehensive, publicly-defined healthcare services for a population in a pre-determined geographic area.

**Infrastructure contract:** In exchange for an annual unitary payment, or capita, UTE Ribera invested an initial sum to develop new healthcare infrastructure, and then implemented a five-year infrastructure/IT investment plan—authorized by the Valencia government—to improve the health department’s physical resources, such as improvements to existing primary care centers,

implementation of new IT systems, and building a new care facility. Additional financing for the new buildings was provided by a group of Spanish banks—CAM, Caja de Carlet and Bancaja. The infrastructure contract spells out all details for the construction and maintenance of the new hospital, including specifications, financing arrangements and deadlines for opening, as well as any incentives and penalties.

Starting with the 2002 updated contract, UTE Ribera pays a 2% fee to the government throughout the contract period, for the use of the public primary care facilities.

**Services contract:** The services contract lays out UTE Ribera’s responsibilities in managing the integrated healthcare network across the health department, and

delivering a set of comprehensive services, as defined under the Valencia Health Agency’s catalog of basic services. The contract also lays out performance expectations, including performance indicators, and penalty and incentive clauses for sub-standard or excellent delivery, respectively.

The clinical and ancillary service operations, as well as the amortized cost of the infrastructure investment, are paid for via an annual per capita payment from the Valencia government.

At the end of the contract period, all infrastructure and services are to be transferred back to the Valencia government.

Table 7 shows how the partnership operates within the PPIP model parameters.

**Table 7: Key players and roles under the PPIP model**

<b>Government</b>	<ul style="list-style-type: none"> <li>• Sponsor of the model (new role focused on planning, regulation, control and financing)</li> <li>• Ensures the building or renovation of public health infrastructure at a contained cost, paid via annual unitary payments</li> <li>• Ensures universal access to, and quality delivery of, a basic catalog of healthcare services for its population through performance management of a detailed contract and use of data</li> <li>• Ensures cost efficiencies through:           <ol style="list-style-type: none"> <li>a. Capping payments to private concessions at 20% less than comparable public healthcare per capita budgets</li> <li>b. Requiring that the concession provide services to all patients, but only covering only 80-85% of the cost for serving patients from other health departments</li> </ol> </li> <li>• Retains/regains ownership of all assets at the end of the concession period</li> </ul>
<b>Private partner</b>	<ul style="list-style-type: none"> <li>• Implementer of the model</li> <li>• Consortium of private entities that assumes financial, construction, operational and service delivery risks in exchange for agreed annual fee based on population served</li> </ul>
	<p><b><i>Insurance company &amp; service delivery partner</i></b></p> <ul style="list-style-type: none"> <li>• Assumes responsibility for management and delivery of integrated healthcare services for a defined population for a specific period of time, based on the government service delivery catalog</li> <li>• Manages all non-clinical operations and facility services</li> <li>• Pursues cost efficiencies through various measures:           <ol style="list-style-type: none"> <li>a. Performance management and incentive programs (compensation linked to performance)</li> <li>b. Improved IT and procurement processes and use of data</li> <li>c. Increased use of health promotion and patient engagement strategies to reduce cost of care</li> </ol> </li> <li>• Pays a fee for the use of public facilities (those not built under the concession)</li> <li>• Agrees to a cap on profits (7.5% of return on investment)</li> </ul>
	<p><b><i>Financing partner</i></b></p> <ul style="list-style-type: none"> <li>• Develops overall investment plan and secures financing from one or more lending agencies</li> <li>• Manages financial risk during the concession period</li> </ul>
	<p><b><i>Construction company</i></b></p> <ul style="list-style-type: none"> <li>• Designs and constructs new facilities, and/or refurbishes existing facilities as specified in the contract</li> </ul>
<b>Patients</b>	<ul style="list-style-type: none"> <li>• Beneficiaries of the model</li> <li>• Able to choose where they obtain healthcare services; this ability provides feedback to public and private providers, and provides additional benefits or penalizes the private concession based on the principle of "money follows the patient"</li> </ul>
<b>Healthcare workers</b>	<ul style="list-style-type: none"> <li>• Actors in the model</li> <li>• Allowed to choose to remain as government employees or join the private company and benefit from various compensation incentive schemes</li> <li>• Have more resources to carry out their clinical activities, along with the possibility of access to research and professional development programs</li> </ul>

Source: UCSF/PwC Fellowship Analysis

## Providing comprehensive care

The PPIP health departments are charged with delivering a broad spectrum of healthcare services, including specialty, hospital, outpatient, emergency, socio-health and pharmaceutical services dispensed at health centers, as well as primary care services including family planning and mental health care. The required set of services is defined by the community's basic health services catalog, developed by the Valencia Health Agency in 2003.

The PPIP health departments are responsible for adjusting their service mix as needed, adding services that the government may add to the service catalog during the contract term, or terminating services that the government decides to remove.

When the La Ribera Hospital contract was retendered in 2002, the government consolidated hospital, specialty and primary care services under UTE Ribera's management. Previously, inpatient and outpatient care across Valencia had been managed by separate government entities; however, the La Ribera experience highlighted the inefficiencies of this approach.

In response, the Valencia government created and implemented the "Unified Management Groups" model in 2003. Under this model, all health departments began to: (a) provide primary and specialized care, coupled with socio-health services, under the leadership of a single director; (b) manage a healthcare-specific budget based on their covered populations; and (c) deliver health services according to the basic health catalog. These changes had a major impact on the health departments' ability to ensure continuity of service and better use of resources.

## Financing the model

Financing of the PPIP model is driven by two key factors: covered population and the capita assessment. Changes in either of these during the contract period can have a significant effect on the PPIP's financial projections.

### Covered population

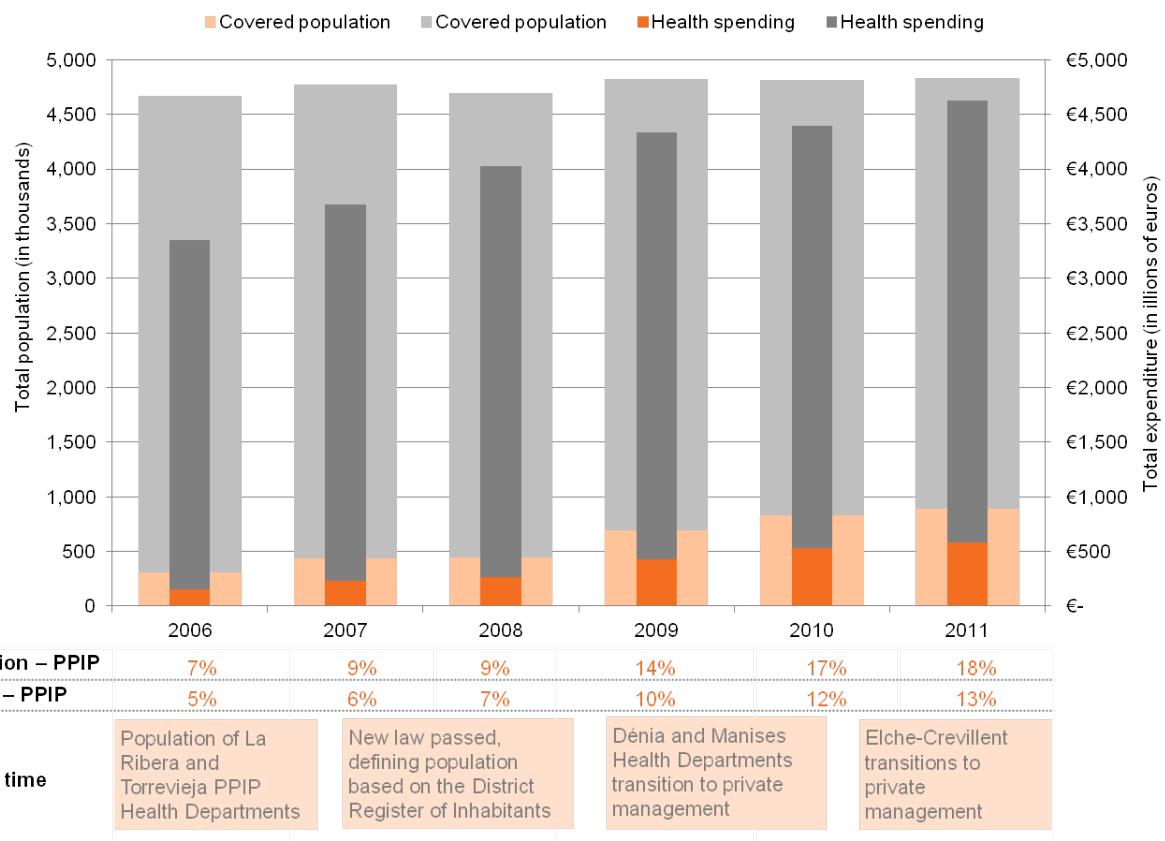
When the initial La Ribera Hospital tender was developed in 1997, information systems relied on population census data to determine the number of people eligible to receive care within a particular health department (and thus the budget available to cover the cost of care for that population).

This definition was updated with the establishment of the Spanish national Population Information System in 1999, which included all people living in a defined area who held personalized health cards.

Finally, in 2007, a new national law required residents to be listed under the District Register of Inhabitants in order to be considered part of the covered population. As a tourist destination, this new law had a major impact on the size of the Valencia Community's covered population: a number of its PPIP health departments—including Dénia and Torrevieja—saw their covered populations reduced by approximately 20% compared to the projections in their original PPIP contracts.

Despite the changes in definition of covered population, by 2012, approximately 18% of the Valencia Community population lived in PPIP health departments.

**Figure 12: Valencia Community population and expenditure on healthcare – PPIP vs. publicly-managed health departments**



Source: Campoy F. (2012) Keys to successful public-private partnerships in health. Dénia's experience in the Valencia concessional model. Health Economics Association Congress

### *Calculating the per capita fee*

The term 'capita' refers to an annual payment by the government to the private partner for successful delivery of contracted services. The payment serves as an insurance premium, which allows the private partner to spread the risk across the covered population.

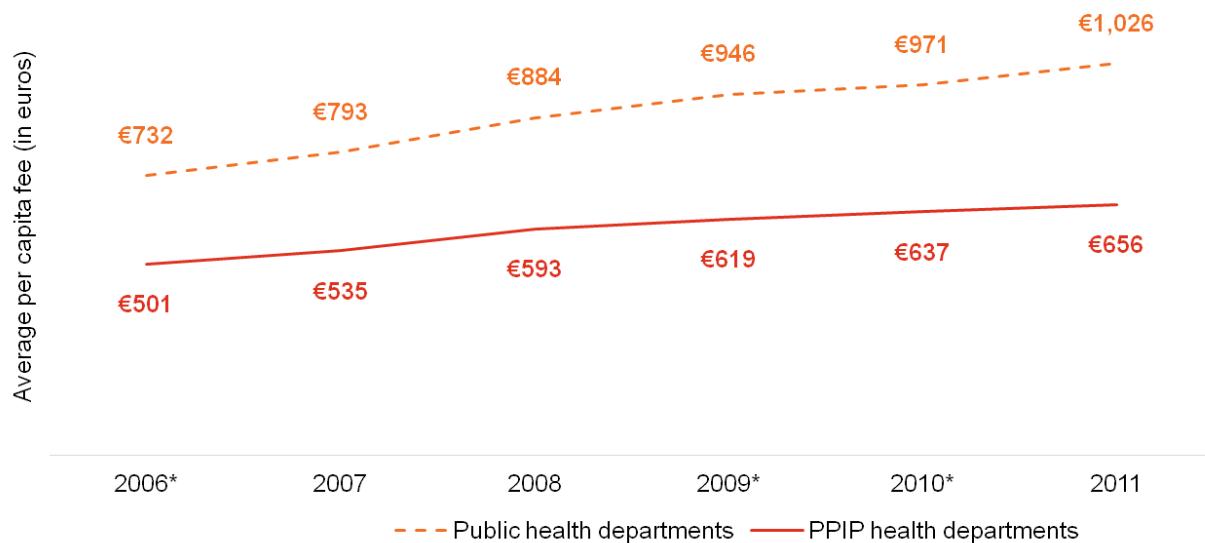
Under the original La Ribera contract, the per capita fee was calculated based on budgeted expenditures at the Elche Hospital, which served a population similar to that of the La Ribera Hospital. Annual adjustments to the fee were based on the general Consumer Price Index (CPI).

By the time the revised La Ribera contract was awarded in 2003, improved information tools made it possible to calculate per-person expenditures across the Valencia Community. In order to incentivize the private party to manage demand and implement efficiencies, the total annual payment to UTE Ribera under the revised contract was set at 20% below average per capita expenditures in the Valencia Community, with a per capita fee of 379 euros per person.

Annual adjustments to the per capita fee were to be calculated at the end of each year, using the

annual CPI as the base, and the Valencia government's consolidated healthcare expenses averaged over the previous year as the ceiling; increases based on government spending were to be added to the prior year's per capita budget. In practice, however, these adjustments were significantly delayed, as consolidated government expenditures were not available until two years after the end of the fiscal year. Thus the private partners were often required to manage operations with budgets of less than 80% of their neighboring public health departments.

**Figure 13: Comparison of average per capita fees – PPIP vs. publicly-managed health departments, 2006-2011**



Source: Valencia Health Ministry. Actual Expense Accounting 2013

\*Expressed as the year when the PPIP health departments came online: 2006 Ribera and Torrevieja; 2009 Manises and Dénia; 2010 Elche-Crevillent

### *Interdepartmental billing (money follows the patient)*

As outlined in the Executive Summary, in order to ensure its residents freedom of choice in healthcare access while incentivizing cost efficiencies and preserving cost neutrality<sup>†</sup> for the public, the Valencia government instituted a process of interdepartmental billing to deal with the costs of treating patients who sought care outside their health department (the “money follows the patient” principle).

Each year, the Valencia government allocates budgets to each health department in accordance with its covered population. Healthcare prices are revised annually by the government pursuant to the Law Governing Public Prices and Fees for the Valencia Community 12/1997.

Under the *money follows the patient* principle, should residents of a PPIP health department seek care in another publicly-managed health department, the private partner is responsible for the resulting costs. Net payments between health departments are calculated at the end of each year.

Initially excluded from interdepartmental billing, primary care services were integrated as part of year-end payments after the covered population was redefined in 2007.

Since the first PPIP contract was drawn up in 1997 for the La Ribera Hospital in Alzira, the prices of services for patients treated outside of a PPIP health department have been subject to a weighting rate (known as a transfer coefficient) below or equal to 0.80, or 80% of the cost established by the Law Governing Public Prices and Fees

(meaning that the private partner would be reimbursed only 80% of the cost if its residents sought care in a public facility). In 2003, the ceiling was raised to 0.85.

Additionally, a new penalty clause on interdepartmental billing was added in 2003, stipulating fines of 12.5% when the total reached 20% of annual billing, and 25% where it reached or exceeded 40% of annual billing (excluding income derived from emergency care).

Interdepartmental billing is required to be completed within 60-120 days of hospital discharge, with prices adjusted at year-end payment.

### ***Annual billing***

The annual capita payment to the PPIP health department is calculated and adjusted at year-end; the final annual price of the contract is estimated accordingly. In 1997, the original La Ribera Hospital contract specified adjustments to the price of the contract based only on revisions to the covered population and interdepartmental billing. Specifications in subsequent contracts include the following items:

1. The covered population as of December 31st, including fluctuations throughout the year and gains calculated on a fraction per day basis
2. Interdepartmental billing results exclusively from publicly-held and publicly-managed health centers
3. Employee benefits for Ministry of Health personnel assigned to the PPIP project
4. An incentive program to encourage savings in pharmaceutical provision, with bonuses reaching 30% of savings when mean per-person pharmaceutical expenses in the PPIP department are lower than those averaged across all health departments

<sup>†</sup> Cost neutrality refers to ensuring that government annual expenditure for the new PPIP facilities and services is equal to or less than historical expenditures under public management.

**Table 8: Committed and actual investments by PPIP health department**

Level of investment	La Ribera	Torrevieja	Dénia	Manises	Elche-Crevillent
Committed investment*	€142.0 M	€80.0 M	€96.6 M	€137.0 M	€146.0 M
Committed investment per person**	€610.1	€727.3	€727.3	€982.0	€1,111.5
Actual investment to date (as of Dec 31, 2012)*	€125.5 M	€105.7 M	€115.0 M	-	€108.8 M

\*Data provided by Ribera Salud

\*\*Based on the number of beneficiaries estimated in tender documents

#### *Investment plan*

All PPIP tender responses were required to include an investment plan, outlining construction and/or renovations to primary care, specialty and hospital facilities to be executed by the private partner during the contract. Investments are defined by year, and by item, based on the needs of the project, and are reviewed by the Valencia Health Agency on a five-year basis.

#### *Limiting clause*

To ensure that the PPIP arrangements were actually serving the population, the government introduced a clause capping each project's internal rate of return (IRR) at 7.5% of investments during the contract period. Unlike other PPPs, the IRR for Valencia Community PPIPs was limited to income derived directly from partnership operations (capita plus interdepartmental billing), excluding all other sources of revenue.

## Monitoring performance

### *Joint committee*

Given the significance of transferring responsibility for healthcare across an entire health department to a non-government entity, the Valencia PPIP model called for an oversight group, comprised of participants from both the private party and the Valencia Ministry of Health. This Joint Committee was responsible for two core functions: 1) ensuring the quality of the contracted services provided; and 2) monitoring compliance with contractual clauses on exploitation and personnel management policy.

In addition, each PPIP contract required the parties to commission an individual to oversee the health department's operations on behalf of the Ministry of Health. Together with a team of professionals, this Health Commissioner was responsible for conducting a series of activities aimed at regulating and ensuring quality and delivery of the contracted health services, including:

- Evaluating patient satisfaction through surveys and documents where users could express their opinions.
- Evaluating: (a) service delivery at the health centers, using indicators established by the joint committee; (b) compliance with the basic service catalog, and (c) progress made under priority programs

(i.e. breast cancer detection, diabetes control).

- Monitoring maintenance of the department's infrastructure and equipment.
- Overseeing the admission of patients outside the covered population, including their relocation and referral to other service centers.
- Overseeing management of statutory staff.

By 2013, 48 indicators had been identified and grouped into three categories: quality, service and management. Indicators are monitored monthly and evaluated annually. While all health departments use the same set of indicators, they use the indicators in different ways to drive performance toward a variety of department-specific goals.

### *Quality assessment*

When the La Ribera Hospital opened in 1999, the contract did not specify a methodology for evaluating the performance of the hospital's medical services. However, with the Health Commissioner overseeing health services to ensure quality, the management model of allowing patients the freedom of choice in where to seek care effectively positioned the patients as judges who determined the quality of services through their behavior.<sup>16</sup>

In 2004, the Valencia Ministry of Health decided to institute a more objective evaluation method that could be used to develop a roadmap for future improvements. The resulting "Management Agreements" tool included clear-cut indicators and goals. By 2007, this tool had been incorporated into the Valencia Health Agency's strategic plan, and had become the standard for both publicly and privately run health departments in the Community.

**Table 9: Sample Valencia Community healthcare performance indicators**

Indicator	Target
<b>Immunization coverage rate</b> Percentage of people who have received particular vaccines	95% Diphtheria, tetanus and pertussis & measles, mumps, and rubella for children 85% Diphtheria, tetanus for 14 years adolescents 60% Flu vaccine for older adults
<b>Efficiency within hospital pharmacy procurement</b> Percent reduction in the cost of drugs compared to the maximum price set by the Ministry of Health	10% reduction
<b>Rate of adherence to clinical protocols</b> Percentage of new prescriptions made according to clinical protocols for a particular disease	≥75%
<b>Weeks elapsed before the start of treatment after positive breast cancer screening</b> 75th percentile for the number of weeks elapsed until initiation of treatment	8 weeks
<b>Average hospital length of stay (case mix adjusted)</b>	Set by each department
<b>Readmission rate within 30 days</b> Urgent care readmissions within 30 days of discharge	Set by each department
<b>Primary care attendance rate</b> Percentage of patients using primary care services more than the standard for high attendance	Set by each department

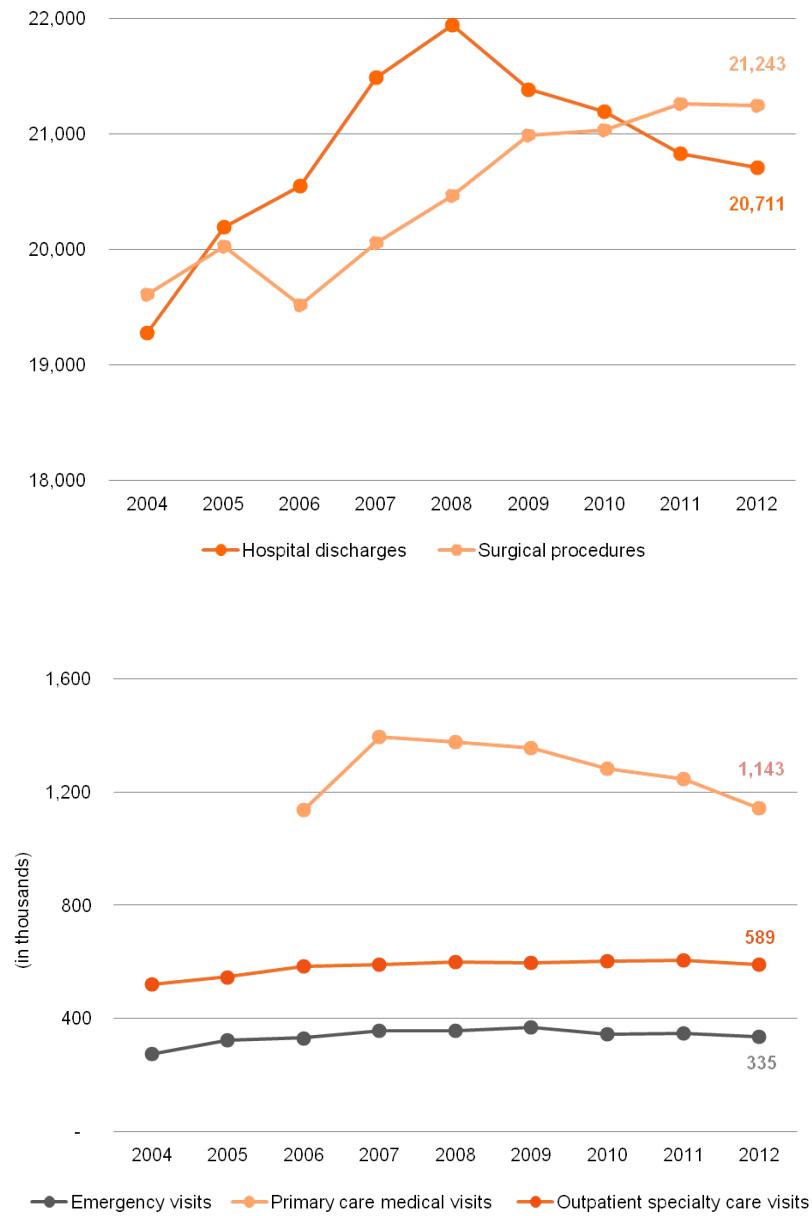
Source: Valencia Health Ministry. Management Agreements, 2013

**Table 10: Valencia Community PPIP hospital performance**

	La Ribera	Torrevieja	Dénia	Manises	Elche-Crevillent	Public general hospitals
Length of stay (days)	4.7	4.5	5.3	4.6	4.5	5.2
Occupancy rate (%)	88.3	83.6	81.3	82.5	86.6	74.1
Turnover index (per month)	5.8	5.6	4.6	5.4	5.8	4.4
Substitution interval (days)	0.6	0.9	1.2	1	0.7	1.8
Emergency admissions (%)	66.6	77.8	72.3	68.7	73.5	73.2
Hospital admissions (%)	12.9	15.8	15.4	12.4	11.5	14.3

Source: Health Providers General Direction. Valencia Health Ministry (2012). Hospital Performance. Ministry of Health, Social Security and Equality. (2012). National Hospital Catalog.

**Figure 14: La Ribera Health Department – overview of healthcare activity**



Source: La Ribera University [sic] Hospital (2013). Annual Report 2012

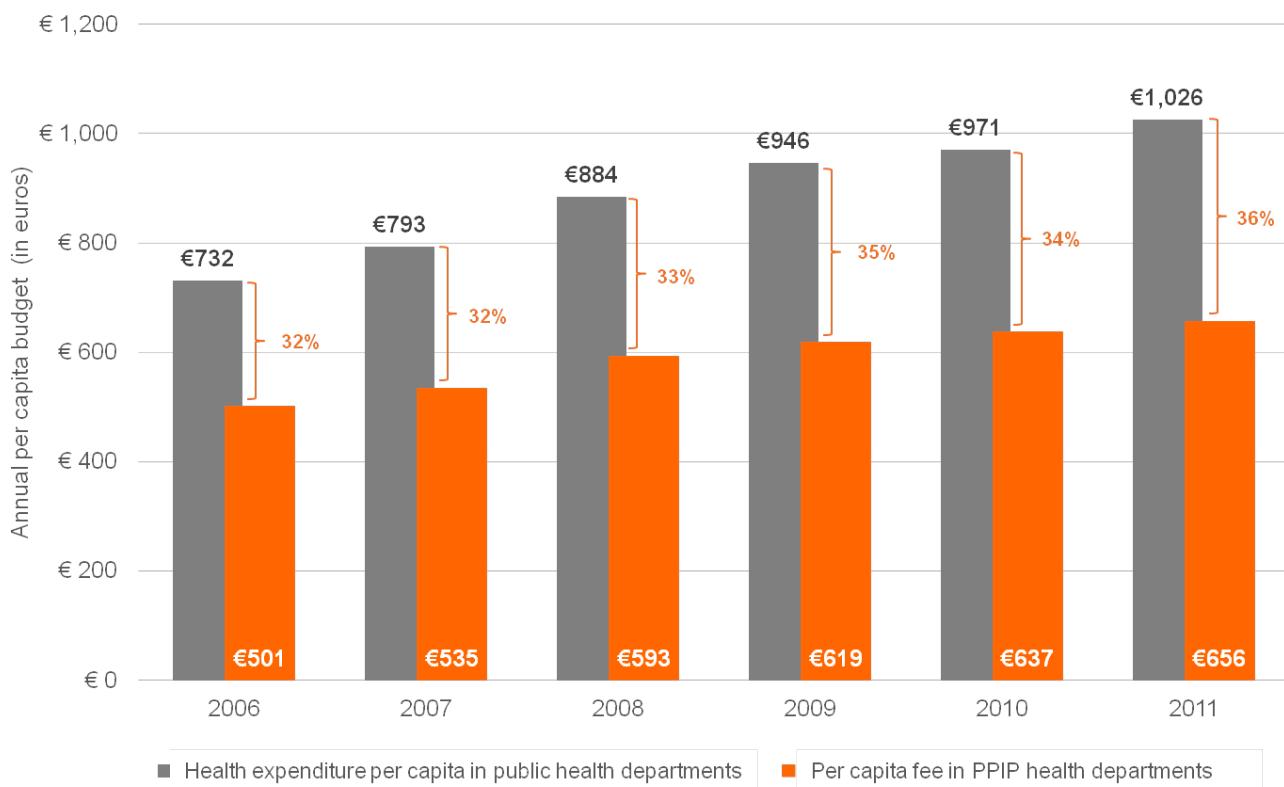
### Financial performance

The La Ribera Hospital aspired not only to promote the health of its covered population, but also to achieve ever more efficient

utilization of the financial and material resources that it receives from the Valencia government. These efforts have resulted in annual savings to the government

of at least 30% compared to expenses per person in other public run departments.

**Figure 15: PPIP health departments – capitated payment analysis**



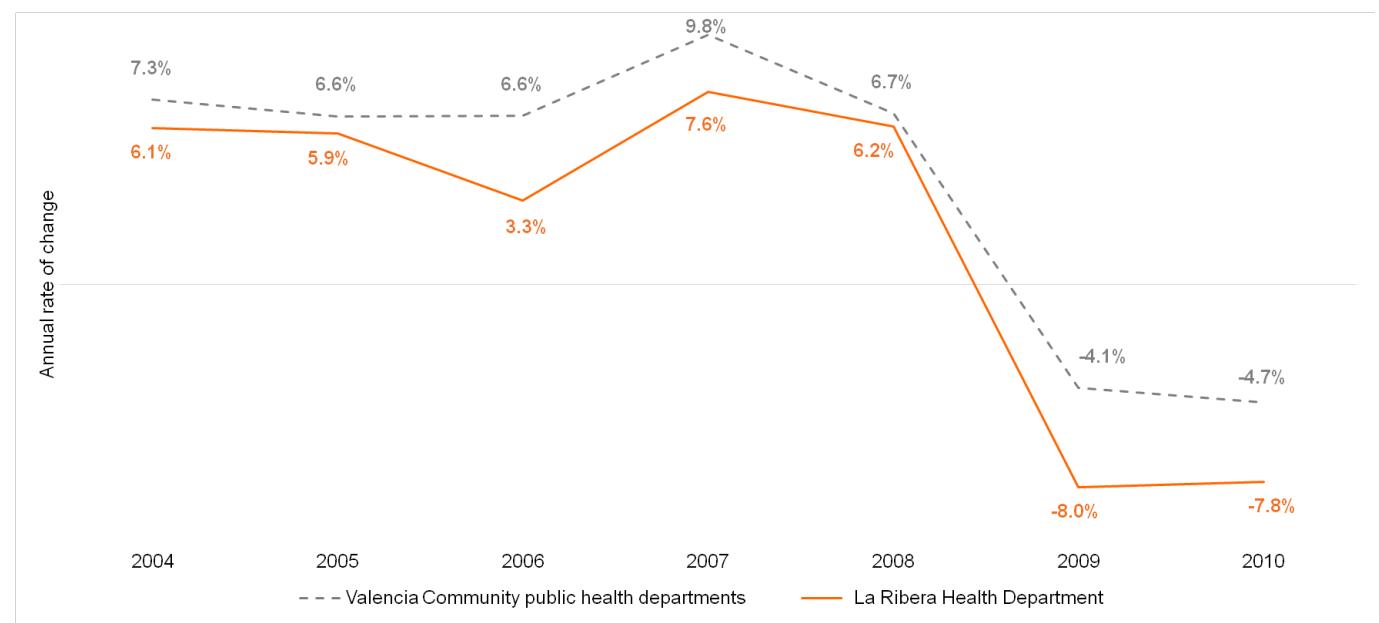
Source: Valencia Health Ministry. Real Expenditure Accounting, 2013

Furthermore, pharmaceutical expenses per person in the La Ribera Health Department have

been consistently lower than those incurred on average in the Valencia

Community, as showed in the Figure 16.

**Figure 16: Outpatient pharmacy spending in Valencia**



Source: Jimenez Cantos E. (2012) Outcomes and Forecast. Valencia School for Health.

## Staffing

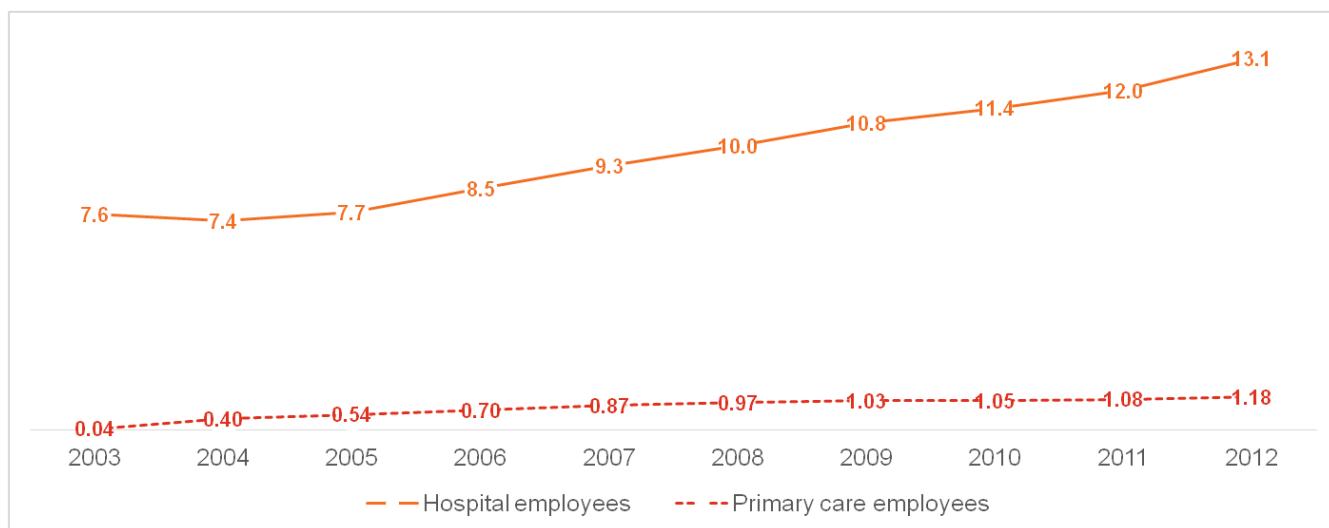
### *Incorporating statutory personnel*

When it opened in 1999, the La Ribera Hospital was required to recruit new clinical and non-clinical personnel to staff its operations. Most of the new staff belonged to a younger generation and joined the project with the view of growing professionally within the alternative (privately-managed) healthcare model.

However, in 2003 with the integration of primary and specialized care services within health departments under the new Unified Management Groups model, primary care personnel employed by the Ministry of Health were reassigned to the privately-managed La Ribera Health Department. To ease the transition, the government guaranteed the statutory employees' positions within the Ministry while they tested the new model.

The integration strategy was gradual, supported by management efforts to ensure a harmonious work environment. As of 2014, 51% of primary care and 7% of hospital personnel in the La Ribera Health Department are statutory. (It is worth noting that, since the PPIP was implemented, the number of staff has grown by 47% in primary care, but remained constant in hospital care, underscoring the Valencia Community's emphasis on primary care.)

**Figure 17: La Ribera Health Department human resources**



Source: Ribera Universitary [sic] Hospital (2013). Annual Report 2012.

## Performance management

Over the years, the La Ribera project has sought to maintain an appropriate rhythm of work, acceptable quality of services, and good communication between management and health personnel. To address these goals, UTE Ribera developed an incentive-driven performance management strategy based on the alignment of professional and organizational objectives, and continuous measurement and regulation of activities. These combined to facilitate a culture of continuous improvement which, over time, took root among hospital personnel.

Finally, in 2012, a new “Value-Driven Management” tool was embraced, with all department decisions made since then guided by four values: sustainability, professionalism, innovation and transparency.

The La Ribera Health Department now boasts above-average performance indicators, and has been recognized as one of the Best Hospitals in the world; 13 of its services have been nominated for *Best in Class* awards.<sup>17</sup>

## Driving further improvements

Since opening in 1999, the La Ribera Hospital has pioneered numerous strategies to drive efficiency and practice improvement:

- Information systems: implementation of a single Electronic Medical Record across all facilities to allow collection and comparison of data.
- Primary healthcare: organizing of pre-surgical test and specialized care appointments to speed up the access.

- Emergency halls: addition of TV screens promoting health education and knowledge-based decision-making.
- Professional staff: providing training and aligning individual objectives with health department goals.
- Health centers: establishing Comprehensive Health Centers with high-end care for patients not requiring hospitalization.

## Innovation roll out – replicating the model

Building on the success of the La Ribera Health Department's public-private and integrated care models, the Valencia government tendered

an additional four concessions between 2002 and 2006, to address health infrastructure and clinical service delivery needs in four health departments: Dénia, Elche-

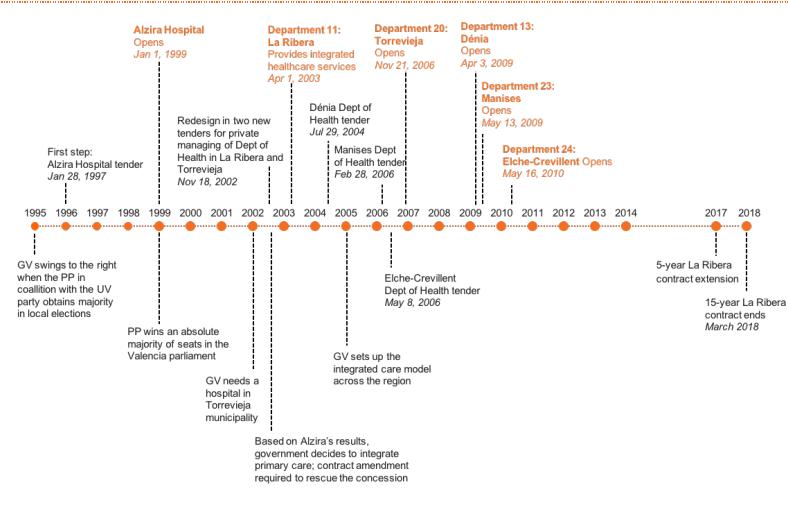
Crevillent, Manises and Torrevieja. In each case the government tailored the La Ribera PPIP model in a new way, to address the new health department's specific needs.

**Table 11: Snapshot of the PPIP health department roll out**

PPIP health department	La Ribera (Alzira)	Torrevieja	Dénia	Manises	Elche-Crevillent (Vinalopó)
<b>Private partners</b>					
Operating	Adeslas	Asisa	DKV	Sanitas	Ribera Salud
Financing	Ribera Salud	Ribera Salud	Ribera Salud	Ribera Salud	Asisa
<b>Year tendered</b>	1997/2002	2002	2004	2006	2006
<b>Year opened</b>	1999/2003	2006	2009	2009	2010
<b>Driver</b>	Floods cutting off populations from care	Summer population explosion	Need to expand the district hospital	Reduce health services demand from Valencia City hospital	Shrink the gap in specialty medical services in the south of the department

Source: UCSF/PwC Fellowship analysis

**Figure 18: (revised): Valencia PPIP model roll out**



Source: UCSF/PwC Fellowship analysis

## Torrevieja – Strengthening the model

The Torrevieja district, located at the southern tip of the Valencia Community and with a resident population of over 107,000, is a popular tourist destination frequented by Spaniards and other Europeans. The city of Torrevieja ranks as the fifth largest in the Valencia Community. During the 1990s, its population leapt from slightly over 23,000, to approximately 51,000 residents, triggering problems with access to healthcare, which worsened over

time in the absence of needed investment in infrastructure.

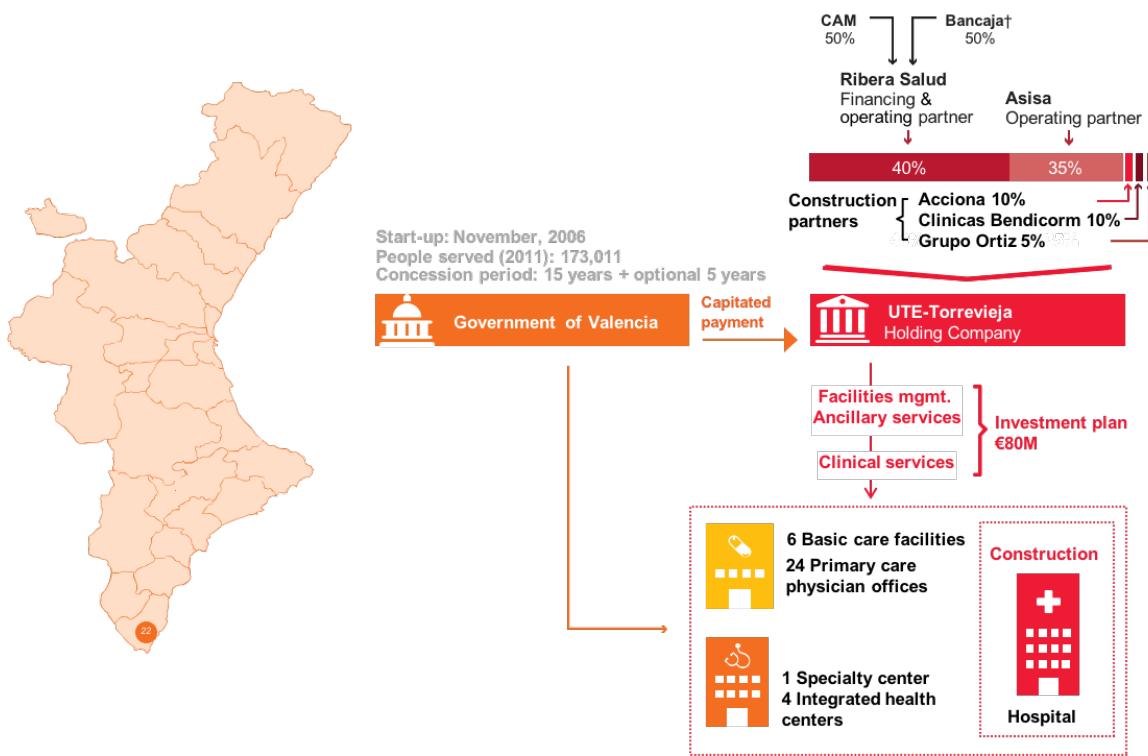
As a tourist destination, Torrevieja and its surrounding areas experience a significant population influx, especially during the summer when the population triples. Many vacationers do not speak Spanish, which creates additional complications for healthcare management.

In 2002, following the positive experience with the La Ribera PPIP, the Valencia government began to contemplate a new PPP model with

comprehensive healthcare management in ten nearby districts for a period of 15 years, renewable for five additional years. The first of these was Torrevieja Health Department 22.

On November 18, 2002, the Valencia Ministry of Health opened a public procurement process, concurrent with that of the redesigned La Ribera PPIP. The specifications of the two tenders were essentially the same, with the exception of a one-time down payment for the La Ribera contract.<sup>18,1</sup>

**Figure 19: PPIP Health Department 22, Torrevieja – location, design and configuration**



† In 2014, Centene Corporation acquired Bancaja's 50% share in Ribera Salud. Ribera Salud acquired Asisa's remaining 35% stake in the Torrevieja UTE in 2015, making Ribera Salud the sole owner of the UTE.

The only bid received for the Torrevieja project was tendered submitted by a UTE holding company, comprised of Ribera Salud (40%), not only as the financing partner but also as the operating partner, in conjunction with Asisa (35%) and Clínicas Benidorm (10%), and Acciona (10%) together with Grupo Ortiz (5%) as the construction partner. The offer involved a capita ceiling set by the government at €379 per person per year, a transfer coefficient of 0.85, and an initial investment of €80 million.

On March 21, 2003, the Torrevieja contract was signed on behalf of 110,000 beneficiaries with health cards, and on October 16, 2006, Health Department 22 was officially established with the inauguration of the Torrevieja Hospital.

Although the concession was expected to yield a deficit for at least five years from when the contract was signed, the Torrevieja PPIP finances were further impacted by two key developments:

1. The covered population was cut by 20% in 2008 as a result of a revision of the definition of “covered population” (see page 36), requiring beneficiaries to be listed as residents under the District Register of Inhabitants as a prerequisite for receiving personalized health cards. This new control mechanism was put in place after the Royal decree 240/2007 established

right of entry, free movement and residence in Spain for citizens of both European Union member states and countries participating in the European Economic Area Agreement.

2. As Torrevieja is a major vacation destination, its health department experiences large spikes in demand during the summer months. Services are thus provided seasonally to a large population from outside the department, whose payments must be negotiated and settled as part of annual payments. Despite 10 years in operation, however, as of the writing of this report, the Torrevieja care delivery figures have not yet been reconciled with the Ministry of Health, and payments are still pending.

As of 2014, the Torrevieja Health Department included six primary care units, 23 auxiliary doctors' offices, five health centers, five comprehensive health centers, a specialized care center and a general hospital.

Additionally, it is served by the Florence®<sup>†</sup> hospital information system, developed by the UTE partners. The system integrates primary and specialized care services, offering continuing education tools and a remote

consultation network for health department physicians. The Florence® software also allows patients to schedule their own appointments, consult their medical records, monitor their illnesses and remain in close contact with their doctors. Patients can also use SMS messaging to request both information regarding services and appointment reminders three days in advance.

As with most of the Valencia PPIPs, the ownership of UTE Torrevieja has evolved over time. In 2010, as part of a strategic decision, Ribera Salud bought out the three minority shareholders, and in 2011 became the primary shareholder with 65% of shares. Asisa maintained its 35% interest. Following this move, Ribera Salud significantly revised its management model in light of its experience with the other four PPIP concessions. Revisions included a synergy strategy that would be initiated months later at the Vinalopó Hospital in the Elche-Crevillent Health Department.

Following the acquisition of a 50% stake in Ribera Salud by the Centene Corporation in 2014, Ribera Salud purchased Asisa's remaining 35% equity in UTE Torrevieja in 2015, becoming 100% owners of the UTE.

<sup>†</sup> Any trademarks included are trademarks of their respective owners and are not affiliated with, nor endorsed by, PricewaterhouseCoopers LLP, its subsidiaries or affiliates.

## Dénia – transformation of a publicly-run health department

Health Department 13, situated southeast of the city of Valencia, is responsible for the health of 160,000 residents of the Marina la Alta district.

In 1986, the Valencia government inaugurated the first district hospital in Dénia, comprising 70

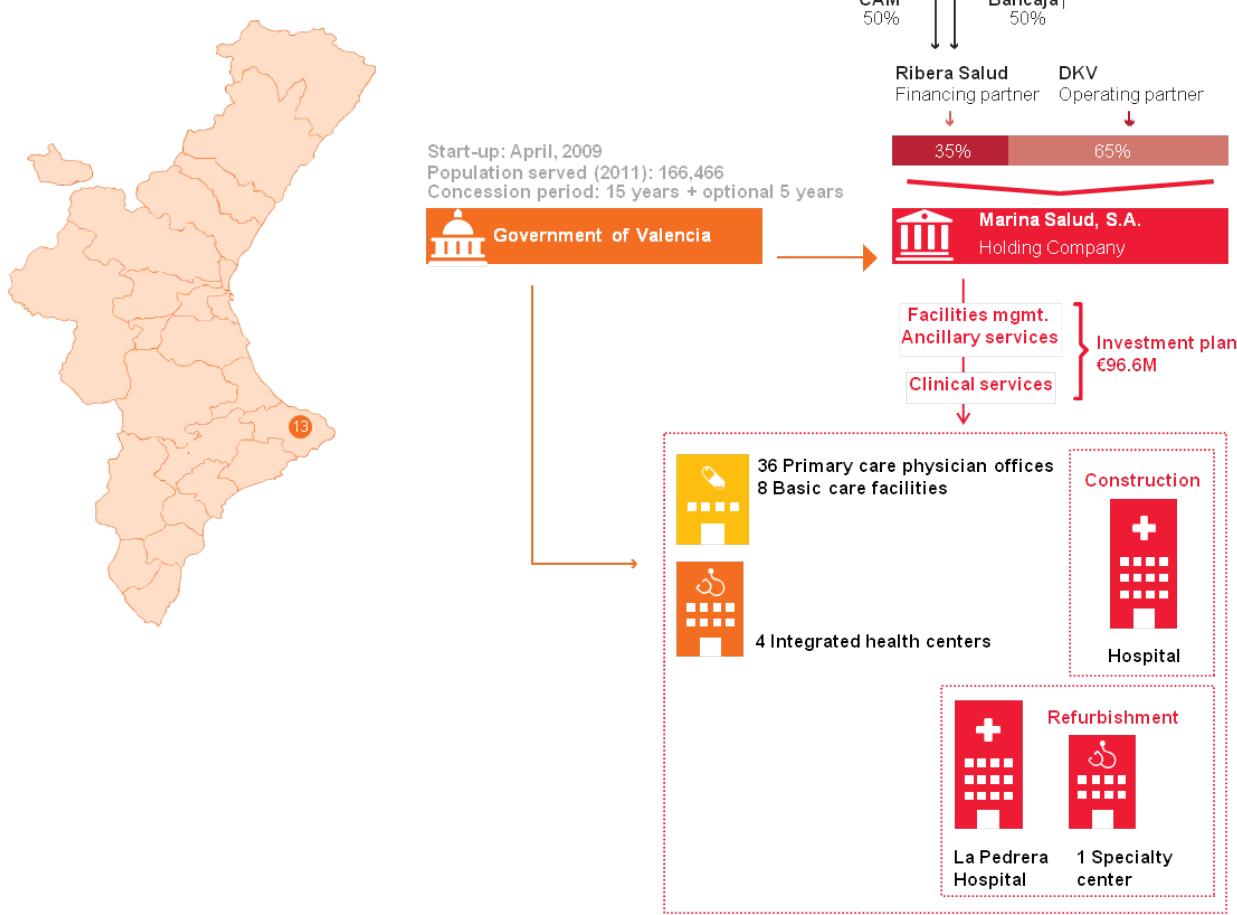
rooms and three operating theaters to meet the service requirements of its (then) 140,000 residents.<sup>20</sup>

However, with a population that doubles, and even triples, during the summer tourist season, the need to expand the hospital became increasingly evident. During the 1990s, many renovations were undertaken but these were insufficient to meet the spiraling

demand, forcing residents to travel to the nearest major cities of Alicante and Valencia for their healthcare.

The Valencia government faced the choice of continuing to invest limited resources in an undersized hospital, or building a new one, using the public-private model that by then was demonstrating positive results in La Ribera.

**Figure 20: PPIP Health Department 13, Dénia – location, design and configuration**



In April 2009, the government awarded the “Marina Salud” contract for the Dénia Health Department 13 to a consortium comprised of DKV as the operating partner (65%), and Ribera Salud as the funding partner (35%).

In contrast with the La Ribera and Torrevieja concessions, in Dénia, the government decided to tender both the construction of a new hospital, as well as the renovation of the old one, to be used as a socio-health center for patients who required longer periods of rehabilitation and recovery. The tender also contemplated the renovation of an existing specialized care center within the town. All of these additions were geared toward strengthening the healthcare system in the district.

The key difference between the Dénia PPIP and those for La Ribera and Torrevieja was that the latter two health departments were created as new departments by the Valencia Health Agency as a result of the PPIP contracts; whereas in the case of Marina Salud, the Dénia Health Department was a pre-existing and traditionally-(publicly) run health department, which was to be converted to private management through the concession.

This conversion was not an easy task. Prior to conversion, the district of Marina la Alta had a health department, a referral hospital, and statutory personnel who would need to be incorporated

into the new model. Moreover, internal political interests on the city council of the locality where the new hospital was to be built delayed construction until August 2006–20 months after the concession was awarded—giving rise to criticism and distrust among the local population. A new and different change management strategy was clearly needed to overcome these challenges.

The first step was to engage the statutory personnel. Under Article 65 of the Marco Statute, the Valencia government allowed health professionals and support personnel to work under a new labor contract while maintaining their statutory positions in the Community’s Ministry of Health. The Marina Salud private consortium committed to respecting the prior working conditions and salaries of the professionals and, in 2009, the project launched with a welcome process featuring the slogan, “1 SOLO EQUIPO” (1 TEAM), during which professionals were sensitized to the PPIP organizational philosophy.

Although the transition was not simple, as of 2014, 1,179 staff members comprising statutory, incorporated and a variety of other professionals were working together as a team. The employment status of each professional is not public, but the capacities and competencies of all are clearly recognized.

While construction of the new hospital was on hold pending resolution by the city council, the project team identified the set of control mechanisms they would require to manage the project, and the tools they would need to report results to the Ministry of Health, DKV and Ribera Salud stakeholders. Cerner, a world-renowned IT firm specializing in hospital systems, was contracted to build the IT infrastructure, to allow for transparent and reliable reporting.

The new system was launched through a “big bang” strategy. Although it initially caused a significant culture shock among the professionals, between a focused change management strategy and an around-the-clock client support center, within one year, all of the professionals had adapted to the new way of doing things. The system implementation inspired sufficient confidence throughout the organization that employees felt comfortable performing their work electronically, and management shifted to using information technology tools not only for process-based management and performance assessment functions, but also for monitoring and managing patients.

Among its many advantages, the Dénia PPIP implementation brought great flexibility to its resource management. For instance, in 2013, the Dénia Hospital initiated a partnership

with other PPIP health departments to offer highly specialized health services without patients having to relocate. They have thus far succeeded in developing surgical teams for maxillofacial, plastic, thorax and neurosurgical operations without incurring significant costs for the project, while enhancing access to services and improving the health indicators of the Dénia population.<sup>21</sup>

## Manises – first urban health department developed as a PPIP

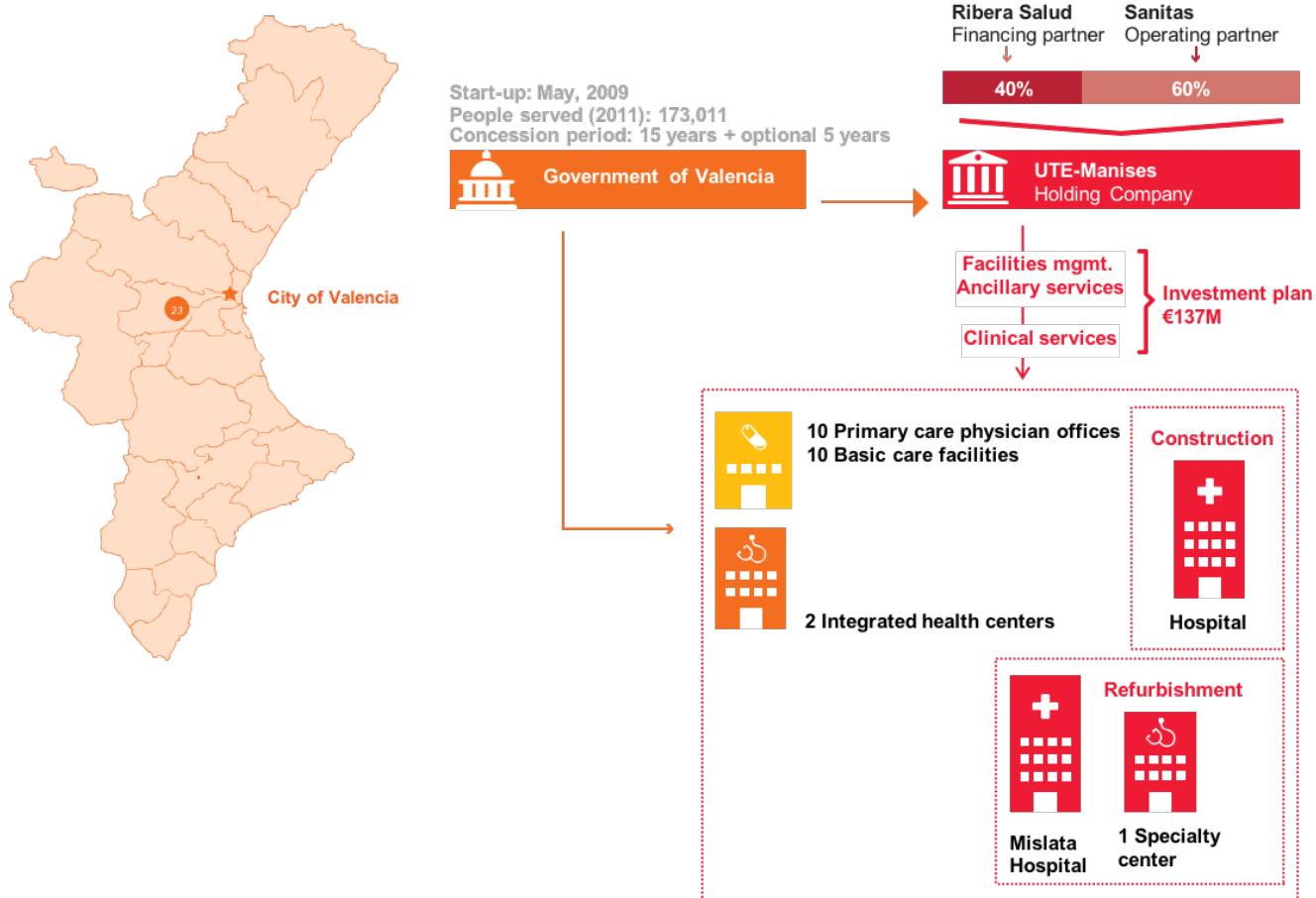
The capital city of Valencia is the third largest city in Spain. Almost half of its population lives outside the administrative city limits. The Valencia Community government created the Manises Health Department in 2009 to expand

healthcare infrastructure to the city's growing population, and improve healthcare access for 149,000 residents living in 13 districts surrounding the capital.

The contract for the Manises concession was awarded to two UTE companies—Sanitas with 60% and Ribera Salud with 40% of the shares—to construct a new 220 bed

hospital and incorporate 134 others. On May 13<sup>th</sup>, 2009, the Valencia government inaugurated Health Department 23, L'Horta Manises, coinciding with the opening of the new Manises Hospital.

**Figure 21: PPIP Health Department 23, L'Horta Manises – location, design and configuration**



Note: In 2012 Sanitas acquired Ribera Salud's 40% stake in UTE Manises, becoming the sole shareholder

From the beginning, the Manises PPIP Health Department faced two main challenges. First, the majority of the population covered by the new health department worked in the capital city, and for decades, had been used to obtaining medical services at two popular hospitals in the capital, particularly the “La Fe” City Hospital (Hospital Universitari i Politècnic la Fé), a well-respected teaching hospital constructed in the 1970s, which encompassed not only the hospital, but also specialized care centers and a university offering a health science curriculum and highly specialized services for the region.

Second, as an urban population, the health conditions of the Manises Health Department covered population tended to be more complex; with a greater prevalence of urban lifestyle-associated diseases, as well as those caused by continuous exposure to pollutants (Manises is home to the Valencia airport). These factors presented challenges to comprehensive care models, requiring Manises to implement additional socio-health services (services designed to support geriatrics and dependent adults).

The new Manises Hospital’s proximity to the two best hospitals in the region compelled Sanitas and Ribera Salud to develop competitive advantages (including innovations to lower waiting times and improve patient experience) to

gain public trust and engender patient loyalty.

Although Manises’ productivity indicators surpassed average indicators for public hospitals (as acknowledged by the users themselves), patients went to the Manises Hospital for acute care services, but continued to go to the La Fe Hospital in Valencia for treatment of chronic illnesses. This caused inefficient resource management and jeopardized the health of patients whose inpatient and outpatient care was no longer being coordinated, because of their right to choose where to seek care.

During the Manises Hospital’s first year of operation, it became necessary for financial reasons to incorporate the neighboring Mislata geographic area—consisting of approximately 45,000 additional residents—into the Manises contract. Although the contract revision did not officially take effect until December 2012, its provisions became operative in May 2010.

Under the new amendment, the government issued part of a public facility (the former Vasquez Bernabeu Military Hospital installation) to the consortium in order to create and manage a new chronic disease hospital and a hospital specialty center with 21 medical specialties, thus enhancing the department’s service portfolio.

The construction of the new hospital in Mislata led to the employment of over 700

professionals, helping to stimulate the commercial and service economy in the area. An additional 472 primary care physician offices were further incorporated into the health department.

The healthcare staff (physicians and nurses) continued to grow between 2010-12 as a result of the expansion in the service portfolio. With the consolidation of the Manises and Mislata Hospitals under PPIP management, the Sanitas-Ribera Salud consortium devised a range of human resource management strategies, enabling the two hospitals to share schedules and staff work days.

At the end of 2012, Ribera Salud decided to sell its shares in the UTE to Sanitas for two reasons: first, as part of an internal strategy to focus more on healthcare center operations than on financing, and second, to give the company freedom to respond to growth

***Those who use capitated funding must pay special attention to primary care and team building.***

**Dr. Vicente Gil Suay**  
Managing Director,

opportunities within the Madrid Healthcare Service (*Servicio Madrileño de Salud*). This left Sanitas as the sole private partner managing the Manises PPIP Health Department.

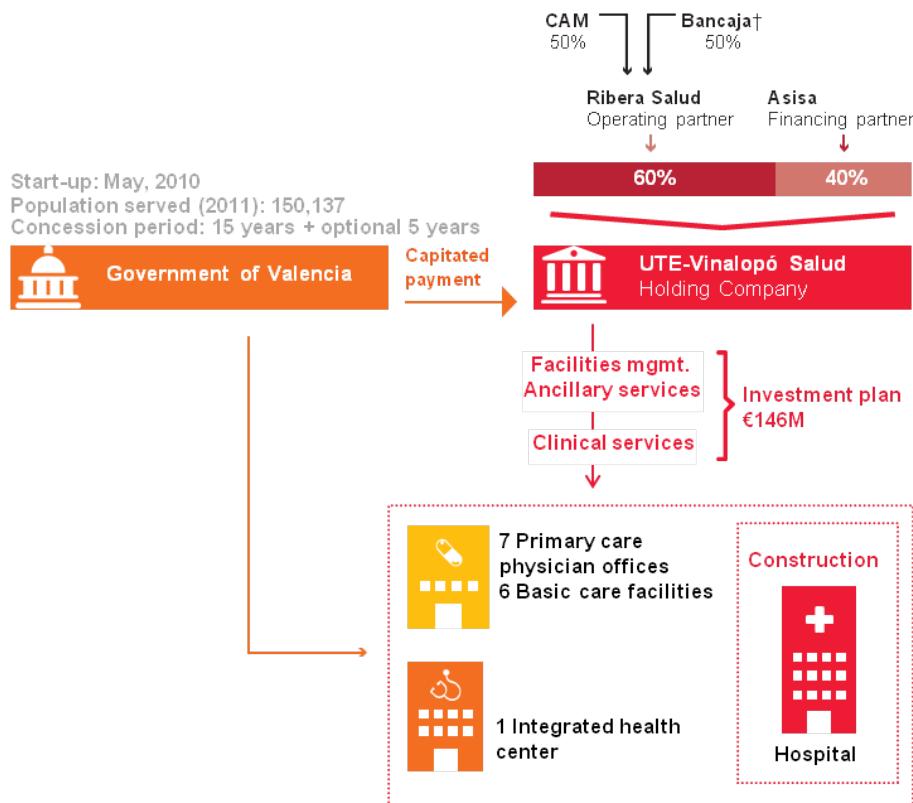
## Elche-Crevillent/Vinalopó – adding economies of scale

Elche is the second largest city in the Alicante region, and the fourth largest in the Valencia Community. It has become a magnet for industry, services and job creation in the region. The public Elche University General Hospital opened its doors in 1978, but population growth in the area soon exceeded its capacity.

By 2006, public-private partnership solutions to increasing access to healthcare in Valencia had grown to such an extent, that when the Valencia government contemplated construction of a new hospital in Elche to address the continued population growth, it immediately adopted the PPIP model, employing a PPIP solution to build the Vinalopó Hospital on the outskirts of Elche to serve the neighboring towns of Aspe and Crevillent.

Unlike previous PPIP projects, the Vinalopó tender received ten competing bids; thus the government was able to negotiate a very favorable contract, both in regard to the assured investment per person covered (€1,112) and the transfer coefficient (84%).

**Figure 22: PPIP Health Department 24, Elche-Crevillent – location, design and configuration**



† In 2014, Centene Corporation acquired Bancaja's 50% share in Ribera Salud. In 2015, Ribera Salud acquired Asisa's remaining 40% stake in the Vinalopó Salud UTE, becoming the sole shareholder.

Similar to the Torrevieja arrangement, though with roles reversed, the project was awarded to two UTE companies—Ribera Salud with 60% of the shares as the operating partner, and Asisa with 40% as the financing partner. The project represented Ribera Salud's first experience as the primary partner responsible for health services.

Later on, as it had done in the La Ribera and Torrevieja Health Departments, Ribera Salud purchased Asisa's 40% stake in Elche-Crevillent to become the sole owner in 2015.

Operations in the new Vinalopó Hospital commenced in May 2010. The partnership currently maintains 14 health centers, together with a wide range of health services related to 40 medical and surgical specialties.

Given the success of the four prior PPIP projects in fostering improvements in health services, the government elected to locate the new Vinalopó Hospital just four kilometers from the public Elche General Hospital (in the neighboring publicly-run Elche Health Department), and allow patients to decide where to seek treatment.

To optimize resources in order to operate within the per capita rate of 84% of comparison hospitals, Vinalopó needed to ensure sustainability through ensuring engagement of its professionals,

excellent service, minimal wait times, and loyal patients.

Since its opening, Vinalopó has been recognized as the second best health department in the Valencia Community, after that of Torrevieja.

The Vinalopó Hospital has the advantage of being managed by the same companies as the Torrevieja Hospital. This allowed it to benefit from Torrevieja's four years of experience and reduce costs related to the learning curve, for example adopting the Florence® information system (developed for the Torrevieja project) for both primary and specialized care. The system allows for remote consultation between family physicians and specialists using shared patient information, as well as the option for patients to access physicians, view their own health records, and monitor their own treatment in an online manner.

The Elche-Crevillent Health Department went on to develop additional strategies to increase efficiency:

### **1. Professional recruiting, hiring and development**

Opening the new hospital in Vinalopó required the filling of 800 positions. To ensure a professional staff with the highest qualifications, a screening team was sent to the cities of Aspe, Crevillent, Elche, Valencia and Madrid to advertise

and recruit staff a year before the hospital opened.

During the interviews, prospective staff were educated on the objectives of the Vinalopó Salud organization and its terms of employment. They were also informed of the hospital's system of incentives, which evaluated services rendered and how they were rendered, and how staff activities would be measured to support the achievement of both service and overall organizational objectives.

Under the contract, monthly salaries were similar to the base salaries received by statutory personnel in public hospitals. However, unlike the public health sector, no overtime was available; instead, employees were eligible for additional compensation of up to 30% of annual salary if they choose to take on additional work and improve their performance.

In 2012, the employees and the private consortium signed their first collective employment agreement, which was designed not only to provide job security, good working conditions and a favorable work environment, but also to align the interests of all those involved toward the objectives of the private consortium, and the public health needs of the entire community.

**Figure 23: Vinalopó Hospital – performance appraisal model**



## 2. Synergies for the provision of resources

The Vinalopó and Torrevieja Hospitals are located only 50 kilometers apart. The Ribera Salud-Asisa consortium used this fact to its competitive advantage, pursuing efficiencies of scale based on the combined covered populations and territory. From the opening of the Vinalopó Hospital, the Torrevieja and Elche-Crevillent Health Departments joined forces to optimize material management,

and set the stage for a subsequent, more ambitious synergy between the hospitals' medical staff.

To achieve these goals, Ribera Salud launched a new company in 2010 called B2Bsalud. The Torrevieja and Elche-Crevillent Health Departments were the first to entrust their acquisition and distribution operations to B2Bsalud which, for a monthly fee, has achieved significant savings in the purchase of health supplies and medicine.

In addition, Vinalopó shares a general warehouse with Torrevieja, not only reducing distribution costs and purchase prices, but also improving the joint management of supplies.

Additional joint employment synergies began in 2011 with the installation of back office information systems throughout the Elche-Crevillent Health Department, many of which were interoperable with Torrevieja. These systems started with support services

such as human resources, purchasing and communications, and were followed by diagnostic support services such as radiology. These systems made it possible to optimize human resources in terms of schedule management, foster professional training and share best practices and patient cases among professionals.

The inter-health department collaboration was then extended to specialty units. On their own, Vinalopó's and Torrevieja's covered populations of 150,000 patients were each insufficient to support delivery of highly specialized services in both hospitals. However, by combining patient populations, the two health departments were able to share specialist personnel and offer services such as vascular surgery, rheumatology, hematology, nephrology at both hospitals.

As a result of the Vinalopó-Torrevieja collaboration, patients were able to receive specialty care without having to go to another facility. Currently, 113 professionals participate in the shared strategy, supported by flexible employment contracts that allow them to circulate and divide their time between the two hospitals.

### 3. **Health promotion by means of specialized marketing**

One of the distinguishing characteristics of the Valencia PPIPs has been their ability to use communications to improve delivery of care. They have done this in particular through the hiring of a range of staff to strengthen functions that public health departments typically do not have, including marketing and communications, patient education, and health promotion.

When the Elche-Crevillent Health Department <sup>24</sup> was launched, it required a solid communications strategy to assure staff—primary care staff in particular—that their preventive care and health promotion activities would be respected, and that the new model would not seek to modify their work. In addition, the proximity of the Vinalopó Hospital to the existing Elche General Hospital required the private consortium to define and market its unique advantages, in order to build patient loyalty to the new hospital (or face loss of revenue if the patients continued to go to the public hospital). The Elche-Crevillent Health Department's approaches of involving patients proactively in caring for themselves, and listening to their concerns during the course of treatment, are examples of two of the successful communications and health promotion strategies used.

## PPIPs in Madrid

The government of the Madrid Autonomous Community assumed responsibility for managing healthcare services for its population in 2001, and created the Madrid Health Service. The Health Service initiated a process of healthcare planning and infrastructure development to assess and address the needs of the population, which had increased by 12.5% during the previous decade, and was expected to grow even more quickly in the years to come.

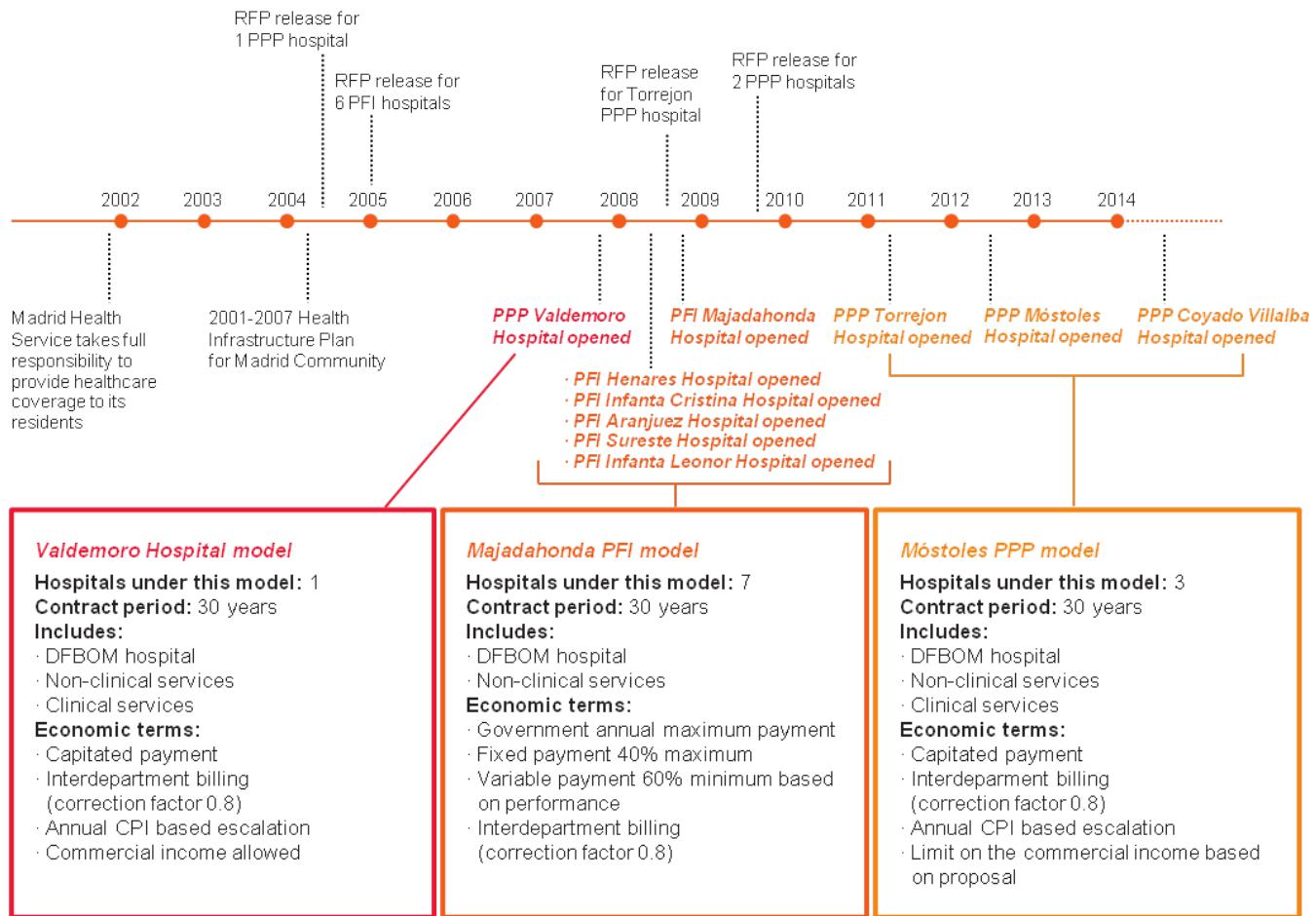
To address the projected growth, the Madrid Health Service began exploring alternatives to improve the performance of its operations through PPPs. In accordance with Law 15/1997 on new management techniques for the National Health

System, the Madrid Health Service incorporated the Fuenlabrada Hospital and the Alcorcon Hospital Foundation as public companies, in both cases maintaining the public character of the enterprises and retaining ultimate responsibility for their healthcare services.

Faced with the need to create a network of support services for the Community, the government developed an infrastructure plan for the years 2004-07, specifying the construction of seven hospitals to meet the needs of the population living in areas farthest from the capital, as well as those in the fastest growing areas.

The plan was implemented using market strategies that encouraged efficiency in public services, including patient freedom of choice, free competition, actual risk transfer, and a formal separation between financial and service delivery functions. The projects used the DBOT (PFI) model to attract private partners to secure funding, manage construction, and oversee maintenance of the facilities during the life of each contract.<sup>22</sup>

**Figure 24: Madrid PPIP model timeline**



Source: UCSF/PwC Fellowship analysis

Contracts were awarded in 2003 for hospital construction and management, as well as for the provision of non-clinical services such as equipment sterilization, cafeteria, housekeeping and laundry. Contracts also included the payment of rent over 30 years, which served to amortize capital costs and cover the provision of non-medical services. The seven

hospitals kicked off operations at the beginning of 2008.

In November 2008, the Madrid Health Service decided to build four additional PPP hospitals on the outskirts of Madrid. Drawing upon the experience of outsourcing clinical services, the Madrid Health Service contracted out the management of the new healthcare services. Also included were the

construction of the facilities and management of operations. In this case, payment was specified per

beneficiary, and the Valencia Community's principal of "*the money follows the patient*" was adopted.

In addition to its experience with PPPs, Madrid has experience with other types of public-private concessions, both clinical and non-clinical, which offer services at a lower cost in exchange for a capita payment, for example:

- **Central Laboratory for PFI health departments**

The Central Laboratory is responsible for providing services in the areas of: clinical analysis, clinical biochemistry, clinical hematology, immunology, genetics, microbiology and parasitology, as well as blood compatibility tests and blood components, for all hospitals built under the PFI (build and maintain only) model. Payments are made on a capitated basis, absorbing the costs of the facilities, equipment, logistics and clinical services.

- **Respiratory therapy**

In 2005, the provision of oxygen therapy for the population of Madrid was tendered and three applicants were selected. These services required dividing the Community into 11 sections. Contracts were awarded for four years, renewable for two additional years, with payment specified as capita adjusted for morbidity. Contractual incentives for providing homecare were expected to produce savings of around €12 million annually.

- **Hospital laundry services**

These are centralized services dispensed at all Madrid Health Service facilities (public and private), are run by a private partner, and represent savings of more than €9 million per year.

## Lessons learned

### **Healthcare services require a flexible model that allows for building benefits through scalability**

While non-clinical service PPPs have become a common practice in the Spanish healthcare system, the Valencia PPIP model revolutionized the way things were done by engaging the private sector in the delivery of clinical services. The PPIP model also used a corporate vision of leveraging private partners as a gateway to achieve more efficient resource management, more productive employees and, above all, more agile responses to

changes in the environment, thus improving the Community's ability to address changing public health needs.<sup>23</sup>

In Dénia and Torrevieja, both characterized by fluctuating populations that as much as triple in the summer, holiday programs have made it possible to respond to medical care demands in an opportune manner. Additionally, the five Valencia PPIP health departments have the flexibility to hire personnel who are not typically involved in healthcare, such as marketing and communications experts, to assist in implementing customer engagement and health promotion strategies.

It is worth noting that the positive impact of the intense health promotion efforts deployed in the Dénia and Torrevieja were reflected not only in better perceptions of health across the covered populations, but also in the increase in patients empowered with regard to their health.

### **“Synergy” strategy**

In 2010, the Elche-Crevillent PPIP Health Department initiated operations, assuming responsibility for the provision of comprehensive healthcare services to over 160,000 individuals. The contract was awarded to a Unión Temporal de Empresas (UTE) composed of two companies, Ribera Salud and Asisa, which were already jointly running the Torrevieja PPIP Health Department.

Leveraging the experience and knowledge that the Ribera Salud-Asisa consortium had acquired while running the Torrevieja Health Department, along with the opportunity to create a larger covered population by linking the two neighboring health departments, the Torrevieja and Elche-Crevillent UTEs initiated a strategy they named “Synergy,” based on sharing support services (human resources, administration, purchasing) around a consolidated IT platform with the view of reducing operational costs.

Since its inception, the Elche-Crevillent Health Department has shared the pharmaceutical warehouse of the Torrevieja Hospital, whose advanced logistics system has optimized resources and curbed distribution and storage costs. In 2011, the Synergy strategy was extended to highly-specialized clinical services, enabling patients to remain in their communities while physicians moved between health department facilities under a well-organized schedule.

By 2013, the two health departments had integrated 20% of their medical staff under Synergy. The two departments also won widespread recognition as the best health departments in the Valencia Community for fully meeting the goals and objectives agreed with the Valencia government.

In providing care to over 18% of the Valencia population (across the five PPIP health departments), the private partners have been able to employ greater flexibility, not only in purchasing medicine and medical devices, but also in optimizing material and human resources. For instance, the Elche-Crevillent and Torrevieja PPIP Health Departments, 30 kilometers (18 miles) and just 40 minutes apart, developed a “Synergy” strategy in 2011 (see previous page), which has allowed them to share highly specialized medical services, equipment and a medical supply warehouse. This, in turn, has boosted efficiency, raised productivity and lowered costs in both departments.

### **Patient commitment is pivotal to reducing healthcare costs in the long run and ensuring improved outcomes**

In contrast with other PPPs, the Valencia PPIP model is built on offering comprehensive preventative and curative healthcare, rather than solely caring for the sick. In exchange for a per-person premium paid based on the number of residents in the health department, the private partner assumes responsibility for delivering a comprehensive list of healthcare services under the Valencia basic service catalog. This, in itself, is an incentive to maintain an adequate health status among covered individuals, by

implementing formulas that boost service quality and perception of health among users through financial efficiency.

To support this approach, the five PPIP health departments launched promotion-prevention-empowerment efforts using mass media, personalized communication tools and mobile devices, but, most importantly, an enhanced relationship between patients and their primary and specialty care doctors via electronic communication channels. For instance, the Florence© information system developed in Torrevieja—now also used in the Elche-Crevillent Health Department—enables patients to ask questions about their health,

send vital signs, and keep close contact with their primary and specialty care doctors, leading to tangible benefits in terms of reduced wait time and improved quality of care.

The PPIP health departments have also implemented a system for empowering patients. Strategies include communication and education programs regarding co-responsibility for healthcare and—based on the “money follows the patient” principle—freedom of choice in the selection of doctors and healthcare centers. These efforts have led to a regulated competition framework centered on the user.

### **Health plan**

In 2012, the Torrevieja Health Department implemented the +Health Plan (Plan +Salud) health promotion scheme with the goal of instilling a health-oriented culture among its population. The department has developed tools, not only for building healthy lifestyles, but also for monitoring and conducting secondary prevention activities for chronic and degenerative diseases. Plan +Salud addresses themes such as women’s health, cardiovascular risk control, empowerment for caregivers, and support for chronic conditions, mental health and diabetes.

Additionally, the department has installed an interactive health portal where patients can manage their medical appointments, program their diagnostic studies, review their medical records, consult their laboratory test results, follow up on the progress of their treatments, and share information with medical staff. The portal also allows them to monitor wait time at the department’s continuous care points.

## **Shared information facilitates bonding among health professionals and bolsters continuous patient-centric care**

One of the principles governing the Valencia PPIP model since its inception in Alzira relates to solid information systems that support patient-centric resource management, a favorable working environment and sustainable public health services. Examples include systems that enable continuous medical attention across levels of care, strengthen the patient-health

system relationship, and foster professional networking among physicians, thus facilitating continuous education for medical staff.

The annual investments of the five Valencia PPIP health departments have been largely focused on developing IT tools for improving efficiency in key areas such as clinical and support service processes, quality of care and patient safety. Service management tools feature a triage module drawn on international best practices and run by rigorously-trained nurses, a shared medical supply procurement

platform, and distinct service control dashboards for monitoring hospital occupancy, number of days in the hospital, rotation intervals and centralized diagnostic interpretation units (imaging), among others.

The IT systems enhance the relationship between primary care physicians and specialists, with primary care gaining in strength and resolving power. The systems also support continuous education for medical staff and opportune patient referrals to tertiary care.

## **Digital Health Services**

The Valencia Community—and particularly its PPIP departments—has been publicly recognized for its investments in health-oriented information technologies. In fact, in 2010 the Dénia Health Department obtained the highest rating from the Healthcare Information and Management Systems Society (HIMSS), which appraises hospital digitalization levels, and was certified as a hospital that does not use paper.<sup>20</sup>

Among its many advantages, Dénia's information technology system, Millennium, integrates primary care, outpatient care, homecare and outpatient drug prescription services. In addition, and most importantly, the system raises the value of care by fostering an evidence-based personalized healthcare culture centered on the patient. A study by the MarinaSalud Chief Information Office revealed time savings of approximately 30% at the Dénia Hospital, obtained solely by digitalizing the medical interconsultation process.

## **Performance assessment is required to create a culture of responsibility and results-orientation**

A further innovation introduced by Valencia's PPIP model consists of alternative formulas for managing health staff. To reach the level of efficiency required from PPIP

health departments in resource management, it was necessary to implement strategies that would foster productivity among health professionals. Since the launch of the original La Ribera Hospital concession, PPIP health departments have implemented a performance assessment program aligned with payment bonds, and a

professional career scheme for support staff.

In contrast with publicly-run health departments, where salaries are based on working days and overtime, PPIP health department physicians are assessed on a monthly basis based on an activity

and results measurement process that aligns individual and organizational objectives under an incentive program. Under this program, health professionals are awarded incentives equivalent to 30% of their monthly salaries depending on their performance. Performance assessment evaluates their clinical activities, the way they deliver services, and the extent to which they contribute to both service and organizational objectives.

This incentive plan posed a significant challenge when it was implemented, given that 80% of the physicians hired by the PPIP health departments came from public hospitals and were not accustomed to being paid based on their results.<sup>24</sup>

### ***Ensure that the government plays a role in the planning, controlling and monitoring of health initiatives***

While the public sector can benefit from private sector practices, it is crucial to recognize that the PPIP model is based on a contract of limited duration, and that the government remains responsible for overseeing quality of healthcare delivery. This is particularly important for the government's strategy role, which requires raising awareness about current needs, identifying situations that could

jeopardize the fulfillment of objectives, and taking actions that provide solutions to future challenges.

Typically, the importance of good governance and management in health systems has been downplayed to such an extent that these fundamental government responsibilities—involving resource allocation, quality oversight and regulation, as well as the means of implementing them—have been confused with operational functions such as the provision of services.

Through the roles and responsibilities outlined in the PPIP contracts, the Valencia PPIP model introduced for the first time a tangible separation between financing (healthcare outsourcing) and service delivery competencies. It further introduced a Commissioner's Unit in each PPIP health department, reporting to the Ministry of Health, with responsibility for regulating and supervising the contracted services.

by changes in government. One option in addition to the Health Commissioner's role, could be to create an autonomous liaison team tasked with managing communication between the project and the sitting government.

The team would need to have a thorough understanding both of the PPIP model and its goals, and of the potential impact of changes in government on public health priorities and healthcare budgets. By remaining autonomous, the team would be more likely to be able to mitigate the effects of changes in political will and priorities during the long-term PPIP contracts. As an administrative structure, the liaison team could then also be tasked with managing contracts, evaluating PPIP operations and sharing knowledge of best practices with other public departments. These skillsets would benefit not only the PPIP covered populations, but also the larger community.

*“The provision of public services must be a flexible undertaking. The structure of government is made to be rigid, not adaptable, and to assure continuity in times of political instability.”*

J. Vidart

Given the long term nature of the PPIP projects, and the complexity of managing large-scale healthcare services, it is important to insulate the projects from continuous contractual renegotiations caused

## Recommendations

### **Promote the creation of internal markets based on financial and clinical transparency**

The Valencia Community pays the private consortia a per-person premium (per person treated at the PPIP departments) which is approximately 30% lower than the average per capita expenditure across the Community. In exchange, the private consortia operate the health departments, provide all of the departments' healthcare services, and invest in the departments' healthcare infrastructure. Some opponents of the PPIP model have criticized the infrastructure costs as being too high; however, these costs must be viewed within the context of the total cost of the 15-year contract. The true cost being financed is the management of public healthcare services, which requires adequate infrastructure for service provision. Ultimately the focus needs to be on providing sufficient and quality service, limiting risk to one provider, operating within budgetary constraints, and upgrading infrastructure together with clinical management methods.

To support these conversations, the Valencia government should place greater emphasis on transparency, and publication of cost, performance and clinical outcome data from all of its hospitals, both public and private. Currently very little data exists publicly that can be used to substantiate claims or

make comparisons between public and private health departments.

It is also important that the government develop the capacity to fully exploit the intellectual potential within the PPIP health departments so that, in addition to providing healthcare to 18% of the Valencia Community population, the PPIP investment can also generate additional improvements and innovations within other public health departments, using evidence harvested from the PPIP departments' processes and systems.

### ***Simplify and standardize patient services and cost tracking to enable more effective implementation of the “money follows the patient” principle***

One of the pillars of the Valencia PPIP model involves allowing patients the freedom of choice of where to seek care. This freedom spurs competition among health institutions as they compete to retain and serve their covered populations rather than paying others to do so, translating into better service quality, greater access and reduced service costs. Although the financial viability of the PPIP model is based on “the money follows the patient” principle, there is still a long way to go to systematize the principle, particularly with regard to managing payments.

Currently, insufficient automated processes result in delayed accountability and an inability to reconcile 1) services rendered by the PPIP health departments to patients outside their covered populations, and 2) services rendered by publicly-run health departments to patients seeking treatment in PPIP departments. As of 2013, these limitations had caused a delay of almost five years in reconciling the PPIP annual end-of-year payment/ collection accounts.

Similarly, the lack of detailed information on the true size of covered populations and total healthcare spending has impacted the two main components of the model. Without this information, PPIP health departments and the government are unable to accurately estimate per capita healthcare spending, and calculate the budget and per person premiums for the PPIP model.

### ***Consider per capita fee adjustments to better reflect actual population trends and needs***

The per capita fee approach used by the Valencia PPIP health departments establishes a uniform per person payment rate for all individuals covered within the geographic scope of the contract. This simplified approach does not consider stratification of the population by inherent risk, assuming instead that the population size is sufficiently large

to avoid sampling bias. The experience of the last 10+ years has shown, however, that there is a need to adjust payments based on demographic characteristics such as age, gender, and other personal aspects linked to patient behavior, such as frequency of hospital visits and the complexity index. These adjustments are needed in both publicly and privately-managed health departments.

Under the Valencia PPIP model, the annual capita payment can be adjusted as needed to take into account a wide variety of factors—for example, the rise in non-communicable-diseases, the age of the population, the human resources inherited at the moment of beginning operations, the size of the infrastructure to be managed, population dispersion, and public and private competitors, among other factors. All of these may impact the sustainability of the PPIP financing arrangements and, above all, the PPIPs' ability to adapt to changes in demographics, disease epidemiology and technology. It is therefore necessary that the per capita fee calculation model be able to adjust to the needs of the population; otherwise there is increased risk that the provision of services will depend on the premium paid, and providers will likely end up doing what they can—rather than what they should.

## ***Considerations for capitated financing***

The *annual capita fee* was conceived as a unitary payment by the Valencia government to cover the comprehensive healthcare costs of its residents. Initially, the population size appeared to be large enough to inspire confidence in the financing model without major adjustments. Therefore, only two factors were considered for annual *capita* adjustments: the Consumer Price Index and consolidated health expenses. However, after 15 years, other factors have had to be considered:

- 1. The burden of chronic disease on the covered population –** In developed countries such as Spain, which have achieved high standards of living and with healthcare coverage including medical support devices that extend life expectancy, it is crucial to take the burden of chronic illness into account, as it constitutes a factor that increases both healthcare spending above the average insured level and the financial risks involved in caring for a population.
- 2. The average age of the population –** On certain occasions, *capita* adjustment requires taking into account the average age of the population—specifically, the ratio of those under 14 to those over 65, with the population between those ages helping to offset the risk posed by chronic disease and frequent recourse to health services.
- 3. Insularity -** The healthcare resources needed to provide services to communities that are more spread out than the average local population are often considerably higher, especially where efforts are also targeted at improving access to healthcare.
- 4. Inclusion of socio-health services -** In order to provide comprehensive care to disabled patients, resources are needed to coordinate a support and training network for caregivers.

With regard to equitable health spending, it is more a question of giving each health department resident what she or he really needs, and not, as is often said, giving everyone an equal amount.

In a strategy for sustainable healthcare systems, where one of the factors affecting *capita* is the average consolidated health expenditure, not implementing transformational strategies in publicly-managed health departments, and allowing inefficient use of resources, ends up benefitting the private sector at the expense of the government's budget.

## ***Incorporate flexibility into PPIP contracts to reflect the changing needs of the environment***

One of the principal challenges of facility PPPs resides in the duration of the contract. In Valencia, this is particularly relevant due to the inclusion of comprehensive clinical services, which are more variable and run a greater risk of impacting the sustainability of the model over time due to unforeseen health impacts or inadequate service management.<sup>25</sup> The private partners are also required to bear the cost of providing any additional healthcare services that the Ministry of Health may choose to add to the basic service catalog during the contract period. To respond to these changes and trends, it is critical that the provisions of the contract requirements retain a robust degree of flexibility, and the governance mechanisms that oversee them include clear clauses or check points at which adjustments can be made without appearing to be manipulations of the contract.

The Valencia PPIP model provides for the establishment of a Joint Committee charged with monitoring, supervising and executing the contract. Led by the Minister of Health, this Committee constitutes the highest decision-making authority under the model. If managed properly, this committee will likely have cause to consider a wide range of decisions during the course of the contract, which impact the terms and finances of the contract.

Although not formal contractual changes, these agreements, typically documented in the minutes of Committee meetings, could be viewed as changes in the rules of the game—on some occasions benefiting the private and on others, the public sector.

It is essential, therefore, that the Committee implement a systematic, auditable and transparent process to record and assess the effect of these modifications on the private partner's business plan, and justify the results in terms of health outcomes, to continue to reassure the public that its money remains well spent.

## Conclusion

As in any form of collaboration, it is essential to develop a relationship permeated by mutual trust and reciprocity, where partners are encouraged to collaborate with one another and to achieve shared objectives. This acquires even greater relevance in alliances between the government and the private sector.

The Spanish government has engaged in public-private partnerships, which have not necessarily involved the transfer of risk or a commitment to results. Yet the PPIP model launched at the La Ribera Hospital in Alzira was conceived as a genuine alliance between the government and the private sector. This was clearly illustrated by the La Ribera rescue in 2002, which—although used by many to discredit the model—gave the private sector assurance of the government's dedication and desire to reach its health objectives under a sustainable model. As a result of the government's demonstration of commitment, new players stepped up to explore PPIP models both in the Valencia Community and beyond.

Since 1997 the Valencia Community has transformed the way it finances and delivers public healthcare services. The PPIP model has allowed the Community to yield a greater return on investment in health for almost 20% of its population, while not only delivering high quality, accessible medical care, but also in expanding and upgrading health infrastructure, and implementing innovative practices for improving healthcare management.

Despite these successes, the government has done little to translate the PPIP management innovations to other publicly-run health departments, to spur further improvement on behalf of the entire population. The diverse health management models in Valencia and other communities provide a wealth of information that needs to be analyzed by change agents from the health sector, with the view of achieving, together with other evolution theories, an adaptive change toward a new generation of strong, effective and, above all, inclusive, health systems.

PPIP models should not be followed rigidly. Their success is the result of a serious engagement of the private sector and the leadership of the public sector, which together must explicitly establish the social and health objectives they wish to achieve.

As this report goes to print, the new coalition government in Valencia (elected in 2015) has decided not to extend the La Ribera PPIP contract when it ends in 2018. Whether they return the health department to public management, or elect to pursue a new arrangement with a private partner, remains to be seen. An objective evaluation of the results of the PPIP models, especially the La Ribera Hospital and decisions taken regarding contract renewal and revisions, would provide a crucial evidence base for the decision now facing the Valencia government, as well as future healthcare projects both in Spain and globally.

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## About the authors

### About the UCSF Global Health Group

The Global Health Group at the University of California, San Francisco (UCSF) Global Health Sciences is an “action tank” dedicated to translating major new paradigms and approaches into large-scale action to positively impact the lives of millions of people. Led by Sir Richard Feachem, founding Executive Director of the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Global Health Group spans a wide spectrum of activities ranging from research and analysis, policy formulation and consensus building, to the catalyzing of large-scale program implementation in collaborating low- and middle income countries.

One of the Global Health Group’s programmatic focus areas is the role of the private sector in health systems strengthening. The Global Health Group studies a variety of innovative delivery platforms that leverage the strengths of the private sector to achieve public health goals. The Global Health Group has identified public-private partnerships (PPPs) in general, and public-private integrated partnerships (PPIPs) in particular, as a promising model to improve health systems globally, including in developing countries.

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### **UCSF Global Health Group**

#### **Sir Richard Feachem**

Professor of Global Health, and Director

+1 (415) 476-5617

richard.feachem@ucsf.edu

### **PwC**

#### **Patrick Figgis, UK**

Global Health Leader

+44 (207) 804-4310

patrick.figgis@uk.pwc.com

#### **James H. Henry, US**

Market Managing Partner

+1 (415) 498-7858

jim.henry@pwc.com

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