Health and Economics Analysis for an Evaluation of the Public Private Partnerships in Health Care Delivery across EU

Annexes

Implemented by

ECORYS

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GEZONDHEIDSZORG

Health and
Consumers
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Annex 1 Data Gap Analysis

Information and data gap analysis

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<thead>
<tr>
<th>General information and data</th>
</tr>
</thead>
<tbody>
<tr>
<td>General remark</td>
</tr>
<tr>
<td>Most literature on PPP is quite positive, mainly because they are written by promoters of PPP such as IFI’s and consulting firms, although a number of more critical articles are being published. A main flaw in literature on PPP is that the source of information is mostly the Government, and hardly any/no information is obtained from the private partners, leading to a one-sided view of PPP, its impact and lessons learned. Global evaluation of healthcare PPPs is patchy, most studies provide little specific comment on healthcare. Although, for example, Portuguese PPP hospitals have been operating since 2007, no evaluation studies are available. Well over a decade after the first PFI projects went operational in the UK, there continues to be a lack of project evaluation. There are few independent evaluation studies.</td>
</tr>
</tbody>
</table>

| Overall trends               |
| Information / studies / project databases available. |

| Fiscal impact                |
| Limited information is available on specific Health PPP related fiscal impact: |
| • Abrantes de Sousa M , (2010) PPP Hospitals in Portugal, EIPA; |
| Articles are available on general PPP fiscal impact: |
| • Hall, D (2010) More public rescues for more private finance failures – a critique of the EC Communication on PPPs, PSIRU University of Greenwich; |
### General information and data

- ESA95 manual on government deficit and bad debt 2004 Edition: Chapter on long term contracts between government units and non-government partners (public private partnerships).

### Macroeconomic impact

Limited scientific information is available on macroeconomic impact of health PPP’s in particular. Literature is available on macroeconomic impact of PPP in general, which can be applied to healthcare, although in most countries the share of health PPP of total health investments is very limited and would not have a significant macroeconomic impact. Specific research on economic allocative efficiency of PPP as compared to traditional procurement is limited.

To understand the relevant of health PPPs, it would be useful to compare the value of healthcare PPPS to total government investment in healthcare. However, this is complicated because:

- Comparison of stock (PPP projects) to flow variables (government investment) is a comparison of apples and oranges;
- Capital expenditures on those PPPs that are recorded in Government accounts are also included in government investment figures;
- Data on exact PPP investments and government investments in health sector are not publicly available.

Papers used for desk research are:

### General information and data

The economic worth of Public Private Partnerships, (in: International Handbook on Public-Private Partnerships, Freame A.Hodge, Carsten Greve and Anthony E. Boardman);
- Raisbeck, P. et. Al. (2010), Comparative performance of PPPs and traditional procurement in Australia, Construction Management and Economics;
- Scherrer, W. (2011), Microeconomic vs macroeconomic drivers of PPPs, University of Salzburg.

### Effect of financial and economic crisis

Available papers used:
- House of Commons (2011), Private Finance Initiative, Written Evidence;
- OECD, 3rd annual OECD symposium on public-private partnerships, www.oecd.org;
- IMF (2009);
Country specific data and information availability

<table>
<thead>
<tr>
<th>Country studies</th>
<th>Spain</th>
<th>Portugal</th>
<th>UK</th>
<th>Germany</th>
<th>Romania</th>
<th>Italy</th>
<th>France</th>
<th>Czech Republic</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law / legal framework</td>
<td>Law in place, publicly available.</td>
<td>Health specific PPP law in place.</td>
<td>Available, via Office of Government Commerce.</td>
<td>Health specific PPP law in place.</td>
<td>PPP law in place, publicly available.</td>
<td>National law on public works amended to facilitate PPP.</td>
<td>PPP law and Health specific PPP law in place, publicly available.</td>
<td>N/A</td>
<td>Law changed in the 1990s to allow and even encourage contracting by districts more widely than from local hospitals. The purchase/provider split includes contracting from the private sector.</td>
</tr>
<tr>
<td>Policy on PPP in healthcare</td>
<td>Devolved to regional Governments, clearly</td>
<td>Clearly defined and executed centrally</td>
<td>The NHS Plan (Department of Health)</td>
<td>No homogenous PPP policy in place.</td>
<td>Addressed by all major sector papers</td>
<td>Central Government broadly favorable; some</td>
<td>Clearly defined, complex execution devolving</td>
<td>No health care specific policy in place. One</td>
<td>As with all healthcare, full responsibilities are</td>
</tr>
<tr>
<td>Country studies</td>
<td>Spain</td>
<td>Portugal</td>
<td>UK</td>
<td>Germany</td>
<td>Romania</td>
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<tr>
<td>defined in Valencia and Madrid, on a case by case elsewhere.</td>
<td>by the Ministry of Health.</td>
<td>2000).</td>
<td>(for national level), never implemented. Locally decentralized for assets/institutions owned by local authorities.</td>
<td>Regional Governments (responsible for health assets) very supportive.</td>
<td>to regional health authorities.</td>
<td>attempt to a military hospital which failed due to lack of political support.</td>
<td>devolved to the districts.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<p>| Information on institutional framework and decision making in health PPP | No PPP specific institutional framework. | Health PPP unit in the MoH | Available, extensive specific published NHS guidance and generic guidance via Office of Government Commerce. | No PPP specific institutional framework. | Decisions are entrusted to individual Regional Governments (fragmented approach); oversight and advisory roles in the | ANAP is the national regulating authority for health related PPPs. It coordinates with MAPPP the French PPP task force (crosscutting) Peripheral. | No projects materialized. The contracting authority for the failed Prague military hospital project was the Ministry of Defense, rather | No specific PPP institutional framework. |</p>
<table>
<thead>
<tr>
<th>Country studies</th>
<th>Spain</th>
<th>Portugal</th>
<th>UK</th>
<th>Germany</th>
<th>Romania</th>
<th>Italy</th>
<th>France</th>
<th>Czech Republic</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview of contracts/details and number of contracts</td>
<td>no consolidated national health PPP list is available and contracts are not published.</td>
<td>Available, for PFI, restricted for ISTCs.</td>
<td>ACSS.</td>
<td>no consolidated national health PPP list is available and contracts are not published.</td>
<td>no consolidated national health PPP list is available and contracts are not published.</td>
<td>A comprehensive survey of all health PPPs in Italy is published every year by Finlombar da, a private-law spinoff of Lombardy Region (ten releases so far).</td>
<td>decision making and implementations is controlled by ARS (regional health authorities).</td>
<td>than the Ministry of Health. Later projects in health sector did not materialise.</td>
<td>No contracts in place.</td>
</tr>
<tr>
<td>Country studies</td>
<td>Spain</td>
<td>Portugal</td>
<td>UK</td>
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<tr>
<td>Description of (standardised) PPP models</td>
<td>Plural approach. Main models: Alzira model, integrated hospital with primary care paid by capitation fee, and infra-only model.</td>
<td>Integrated hospitals (infra+clinical services) in operation; infra only hospitals in tender.</td>
<td>Available, NHS and Office of Government Commerce web sites.</td>
<td>2 Models: 1. PPP franchises hospitals, were Private service provider buy and operate hospitals from Municipalities (more than 500); 2. Traditional PPP, were hospitals have private partners for the financing and</td>
<td>Outpatient services (like dialysis) or Hospital clinical support services (imagistic, laboratory) and Hospital non medical support services.</td>
<td>SPVs are not involved in the delivery of healthcare or clinical support services, but take responsibility for a very broad range of non-clinical support services.</td>
<td>Multiple approaches mainly fall under BEH and DBFO (design, build, finance, operate) models.</td>
<td>Available at Central PPP departme website.</td>
<td>Short term contracts are common to purchase healthcare services from the private sector, and PPP is merely an extension of this.</td>
</tr>
<tr>
<td>Country studies</td>
<td>Spain</td>
<td>Portugal</td>
<td>UK</td>
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<tr>
<td>Informatio on payment systems</td>
<td>Capitation payment known.</td>
<td>Payment per production adjusted by CMI Case Mix Index.</td>
<td>Available – for PFI, a standard tariff payment model for all NHS hospitals. Restricted information on ISTC’s.</td>
<td>Different approaches: Fixed fees and success fees in relation to the performance/outcome.</td>
<td>Contracts with NHIF as by legislation in place, mostly fee for service with a capped contract.</td>
<td>Different approaches, but primarily fees for the management of non-clinical support services plus long-term concession on commercial activities (shops, vending machines, ...)</td>
<td>Different approaches: input-based fees, concession (free exploitation/operation rights). Guaranteed minimum service charge.</td>
<td>Not applicable</td>
<td>Commercially confidential – not available. Believed to be a price per intervention at Coxa.</td>
</tr>
<tr>
<td>Country studies</td>
<td>Spain</td>
<td>Portugal</td>
<td>UK</td>
<td>Germany</td>
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<tr>
<td>Information on payment amounts / commercial data of the projects</td>
<td>N/A</td>
<td>Hospitals still in early operating stage - financial statement published.</td>
<td>Limited availability for PFI and ISTCs due to commercial sensitivity, different regulatory frameworks applying to NHS and independent sector providers, and a lack of systematic evaluation of the effects of ISTCs on the NHS.</td>
<td>Information regarding payment amounts are not published, but available after research (for examples in our case studies).</td>
<td>Same as for public institution, not published.</td>
<td>Financial details are confidential due to commercial sensitivity.</td>
<td>Financial details are confidential and only disclosed to regulatory and auditing bodies.</td>
<td>Not applicable.</td>
<td>Commercially confidential – including investment amounts, loans taken, return objectives or achievements.</td>
</tr>
<tr>
<td>Share of PPP as % of total investment program</td>
<td>Not available.</td>
<td>PPP accounted for over 90% of the beds</td>
<td>2% (source) / EIB (2011) research states</td>
<td>Not significant.</td>
<td>Less than 0.1%.</td>
<td>50% of all public works in the health sector on Informatio not available. In 2009 15%</td>
<td>None.</td>
<td>Very small.</td>
<td></td>
</tr>
<tr>
<td>Country studies</td>
<td>Spain</td>
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<tr>
<td>e in health</td>
<td></td>
<td>in new hospitals over the last decade.</td>
<td>40% of health investments in UK are PFI.</td>
<td></td>
<td></td>
<td>average from 2006 to 2010, according to Finlombar da.</td>
<td>investmen t had been carried out through PPPs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value for money reports available</td>
<td>Not available / PSC is not part of the mandatory procurement process.</td>
<td>PSC sector comparato r used consistentl y as required by PPP law, initial VFM data published</td>
<td>PFI – available via National Audit Office and Parliament ary Reviews Limited data on ISTCS due to absence of cost data due to commerci al sensitivity.</td>
<td>Not available.</td>
<td>Not available / PSC is not part of the mandatory procurement process.</td>
<td>Not available, due to commerci al sensitivity of the informatio n they are based upon.</td>
<td>No data is available to assess that.</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>Audit results by national audit chamber</td>
<td>Sindic de Comptes( Valencia Court of Auditors, Available, Tribunal de Contas, Relatório de</td>
<td>Available – National Audit Office.</td>
<td>There are only annual financial audits of</td>
<td>Part of the yearly NHIF audit, no major</td>
<td>Regional audits are conducted case by case, but</td>
<td>ANAP does not have audit database. Regional</td>
<td>Not applicable.</td>
<td>As far as is known, none.</td>
<td></td>
</tr>
<tr>
<td>Country studies</td>
<td>Spain</td>
<td>Portugal</td>
<td>UK</td>
<td>Germany</td>
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<tr>
<td>criticized, a posteriori, the termination payment of 2003.</td>
<td>Auditoria das Parcerias da Saúde no.15/2009.</td>
<td>the hospitals provided by CPA firms.</td>
<td>findings to date.</td>
<td>not systematically.</td>
<td>audits are conducted case by case but not systematically.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Informatio n on risk transfer</td>
<td>Publicly available?</td>
<td>Publicly available?</td>
<td>Available via national Audit Office reports, Parliamentary reviews and other studies.</td>
<td>Most of the risks are transferred to the private partner.</td>
<td>Risk 100% with the private operator, no minimum volume guarantee for patients or multiannual contracts.</td>
<td>Limited information is available due to the confidential nature of contracts; the picture seems to be very fragmented (especially for large facilities, every project is basically unique).</td>
<td>Varies case by case. Investment and work related risks borne to the private partner while the public partner gives guarantee for asset recovery.</td>
<td>Not applicable</td>
<td>Detail not available</td>
</tr>
<tr>
<td>Cost efficiency</td>
<td>Some studies</td>
<td>PSC done, updates</td>
<td>Available</td>
<td>Available in case</td>
<td>Some info made</td>
<td>Limited anecdotal</td>
<td>No information</td>
<td>Not applicable</td>
<td>Anecdotal information</td>
</tr>
<tr>
<td>Country studies</td>
<td>Spain</td>
<td>Portugal</td>
<td>UK</td>
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<tr>
<td>data</td>
<td>made available by operator.</td>
<td>not published.</td>
<td>National Audit Office data.</td>
<td>studies, but not published generally.</td>
<td>available by advisor (IFC).</td>
<td>informatio n.</td>
<td>n.</td>
<td>n only (in conferences presentati ons).</td>
<td></td>
</tr>
<tr>
<td>Manageme nt of contracts</td>
<td>Done locally, informatio n available.</td>
<td>Contract management team in regional health administra tion.</td>
<td>Available via National Audit Office reports.</td>
<td>Done locally, informatio n available.</td>
<td>Done at the regional level by NHIF branches, or directly at the Hospital level for clinical ones.</td>
<td>Primarily by the top management of the hospital or the Local Health Authority, with oversight by the Regional Health Departme nt.</td>
<td>Public health facilities (EPS) and PPP operator supervised /controlled by ARS.</td>
<td>Not applicable.</td>
<td>Locally, between the hospital company and local districts.</td>
</tr>
<tr>
<td>Documente</td>
<td>Some</td>
<td>?</td>
<td>Incorporat</td>
<td>Available</td>
<td>Some info</td>
<td>Some</td>
<td>No</td>
<td>No.</td>
<td>For Coxa,</td>
</tr>
<tr>
<td>Country studies</td>
<td>Spain</td>
<td>Portugal</td>
<td>UK</td>
<td>Germany</td>
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<tr>
<td>lessons learned</td>
<td>studies are available (list them here?)</td>
<td>ed in various studies-referenced above and in case studies.</td>
<td>in case studies, but not published generally.</td>
<td>made available by advisor (IFC).</td>
<td>studies are available, but they lean explicitly in favour or against PPPs; the Finlombarda surveys are the most comprehensive source, but clearly biased in favour of PPPs.</td>
<td>documentation yet.</td>
<td></td>
<td>conferenc presentations and occasional academic papers (sources listed in case study).</td>
<td></td>
</tr>
<tr>
<td>Answers to questionnaire</td>
<td>Not received.</td>
<td>Not received.</td>
<td>PFI – yes ISTCS – not received.</td>
<td>Not received, change of Government.</td>
<td>Not received.</td>
<td>One responded to all questions (Director of planning at CH Laborit).</td>
<td>Questionnaire not sent (project specific case study).</td>
<td>Questionnaire not sent (project specific case study).</td>
<td></td>
</tr>
</tbody>
</table>
## Annex 2 Matrix for selected country studies

<table>
<thead>
<tr>
<th>Criteria</th>
<th>UK</th>
<th>Germany</th>
<th>Portugal (wave 1 and 2)</th>
<th>Italy</th>
<th>Spain</th>
<th>Romania</th>
<th>France</th>
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</thead>
<tbody>
<tr>
<td>Integrated model</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Infrastructure model/PFI</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Off balance treatment</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>On balance treatment (required)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>PPP Unit</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td></td>
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<tr>
<td>PPP Law</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>On-going/finalised projects</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Centralised Government</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Decentralised/Federal State</td>
<td>X</td>
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<tr>
<td>National Health Service</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Insurance based health system</td>
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<td></td>
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<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>% of PPP contracts in total health spending (committed?)</td>
<td>Appr 40%</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td></td>
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<tr>
<td>Flexibility of the initial contract</td>
<td>No</td>
<td></td>
<td></td>
<td>No</td>
<td>No</td>
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### Table of contents

#### Annex 3 Matrix for selected project case Studies

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<tr>
<th>Case Study</th>
<th>MODEL: Integrated / Infrastructure</th>
<th>Risk allocation</th>
<th>Financing</th>
<th>Type Construction/refurbishment</th>
<th>Depreciation period</th>
<th>Level of service</th>
<th>Flexibility of the initial contract</th>
<th>Dimension of investment</th>
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Explanation to column level of services:
1. Specialised clinical services;
2. Full service hospitals, infrastructure and facility services;
3. Full service hospital, including infrastructure only;
4. Integrated primary and hospital care facilities and services.
Annex 4 Country and Project Case Studies
Case Study: United Kingdom

The Private Finance Initiative NHS model

1. PPP Law/Legal Framework/PPP Policy in Health

In November 1992 the then UK Conservative Government announced in its budget statement “ways to increase the scope for private financing of capital projects.” This was the beginning of what was to become known as the Private Finance Initiative (PFI), under which groups of private investors manage the design, build, finance and operation (DBFO) of public infrastructure. PFI was rapidly expanded under the Labour government, which came to power in 1997. The current coalition government, formed in May 2010, has confirmed that it remains committed to the Private Finance Initiative as a way of delivering investment in infrastructure. It is a procurement model that uses private sector capacity and public resources in order to deliver public sector infrastructure and (optional) non clinical services according to an output specification defined by the public sector. A defining characteristic is the use of project finance using private sector debt and equity, underwritten by the public (central government). Its widespread adoption for health sector infrastructure investment in 1997 followed the lead of Australian State Governments’ development of the concept in the early 90’s. From 1998 on it in effect became “the only game in town” (Minister of Health 1998) for financing new health infrastructure investment in the hospital sector. This reflected the limited availability of government capital for hospital renewal at that time - and an ideological belief in public service outsourcing by the then government; PFI in consequence became the only practicable (formal policy) funding framework for large scale capital investment in hospital facilities.

In addition to PFI, the Labour government introduced a limited scope full service PPP model for the provision of a specified range of surgical and medical treatment; the so called Independent Sector Treatment Centre Policy. This is described separately.

2. Centralised PPP Unit on health at country level/ Decentralised decision making (devolved/decentralized approach used for management of PPP)

Under pre-PFI conditions hospitals negotiated directly with the Ministry of Health for the provision of large scale capital through submission of formal business plans. The process (and content of plans) was heavily standardised and subject to rigorous MoH guidelines. Hospitals were also required to produce evidence of local district health authority and regional board support for the project. This system prevailed for the PFI programme excepting that:

- The Treasury required the Ministry of Health to establish a separate central PFI unit to advise on and approve all PFI proposals. The unit is part of the Procurement, Investment and Commercial Division of the MoH. The Treasury has representation on the PFI unit. Central guidance is extensive and mandatory (a combination of Treasury and MoH provisions) and covers all dimensions of planning, procurement and management of projects. In practice it has proved formulaic in shaping hospital development;
- Treasury approval is also required for PFI sign off. The Treasury maintains overall policy responsibility for PPP, the Department of Health’s PFI activities operate with a degree of flexibility but within the overall policy;
• The government accepts a legal obligation for underwriting all PFI contracts - covering its public sector liabilities – in practice mainly payment of the unitary charge (see later).

Following MoH (PFI unit) approval of project proposals the individual Hospital Trust is wholly accountable for the management and operation of the public sector element of the project. This includes ‘front line’ negotiation of the contract with the PFI operator special purpose vehicle (SPV) - and its subsequent operation. Final MoH PFI unit approval is necessary before contracts can be signed by the hospital, as the formal contracting body (acting on behalf of the MoH).

3. In case of the decentralised approach – the role of the central government

Not applicable

4. First PPP Contract:

The first district general hospital: Cumberland Infirmary, Carlisle, Cumberland. Opened 2000 (£87 million capital cost – 444 acute beds)

The first academic teaching hospital: Norfolk and Norwich University Hospital, Norwich, East Anglia, opened in late 2001 (£229 million capital cost – 987 acute beds)

5. Total Number of PPP Contracts

See below

6. Model:

• PFI - According to Treasury figures there are 118 PFI projects in the English health sector, the vast majority are fully commissioned. The total capital value of projects is £ millions 11,614.3;

• Infrastructure + Clinical (SPV) Hospital Management – none ;

• Franchise – one, for management services of an NHS hospital (Hinchinbrook) that had failed financially;

• Full service provision – none (see also Independent Treatment Centres).

7. Contract duration

Typical contract duration at the beginning of the PFI programme was 25 years. However, as capital costs have risen, in particular for the larger and more complex teaching hospitals, a significant number of projects are tending towards 30 years with a small number extending to 40 year contract periods to ensure that the unitary charge to the hospital remains affordable. The rising cost of borrowing is also a factor in extending the contract period. It is to be noted that some contracts now paradoxically extend beyond the normal lifespan of typical hospital buildings.

8. Payment System

PFI is funded through Hospital Trusts making an annual payment, called the unitary charge, which comprises an availability fee (covering the capital and lifecycle costs) and a facilities management fee (covering the costs of services such as cleaning) if these services are incorporated in the project. In calculating the unitary charge the PFI company will include:

• the capital costs of the project;

• the likely financing costs and, hence, debt service responsibilities of the Contractor;

• the operating costs of the project (including sub-contractor costs, administrative costs, employment costs, insurance costs, tax liabilities and
other costs, expenses and fees); and any other costs, expenses and risks inherent in the project.

The rate of return which the sponsors will specify in calculating the Unitary Charge will usually be determined in light of:

- the sponsors’ required rate of return on such projects to meet the threshold levels expected by their respective boards or investment committees;
- the risks being borne by the sponsors and the Contractor and the risk profile of the project as a whole; and
- the debt service and other financial cover ratio requirements of the lenders/funders (which may include a minimum surplus cover over estimated cost).

Unitary charges are not transparent in regard to breakdown of charges into constituent components; it is a simple single figure annual charge. That is the only figure that appears in the Hospital Trust’s annual accounts.

The unitary charge is index linked (for the duration of the contract) according to a formula agreed at contracting stage.

9. **Share of PPP contracts in total hospital investment plans**

PFI contracts represent over 90% of all major hospital infrastructure investment projects. Those that have been funded through direct government spending are those that due to exceptional circumstances are not suitable for PFI e.g. major refurbishments (where new replacement is non-viable), where there may be insurmountable legal problems e.g. (some NHS hospitals are subject to long-standing trust ownership arrangements) or where no PFI contractors have expressed interest in projects (where risk factors or high borrowing costs may be unacceptable).

10. **Value for money consideration on a macro level**

All PFI projects are tested for value for money (in the taxpayers interests) through a comprehensive set of mandatory Treasury guidelines which apply to all types of public sector PFIs’. At the lowest common denominator the question is will PFI produce a lower cost project than one that is conventionally funded. Tests are made at the various stages of business plan development. The basic principle is comparison of the PFI project proposal (prepared by the PFI SPV) with a ‘Public Sector Comparator’ (PSC) prepared by the hospital as part of its business planning process. The PSC is a hypothetical costing of a conventionally financed project. The PSC incorporates:

- Same outputs as specified for the PFI project;
- Sensible costing (use of financial advisers);
- Retained risks are explicitly identified and quantified (expected value);
- Resulting cash-flows turned into a Net Present Value (NPV);
- PSC NPV compared with NPV of the PFI unitary charge.

The phased assessment in conducted in 3 stages:

- Programming level - suitability of using private finance;
- Project level (pre-market launch) – the main decision point.
- Procurement level
Treasury guidance was further developed in 2007/8 to include a ‘qualitative’ element to ensure that PFI procurement will deliver the forecast VfM benefits. Qualitative assessment includes:

- Viability:
  - Measurable and definable outputs, clear scope;
  - Operational flexibility
  - Equity/efficiency reasons for private sector service provision.
- Desirability - Do the benefits outweigh the costs?
- Achievability - Market interest, time scales.

Revised Treasury guidance also includes a mandatory requirement to include an ‘optimism bias’ in favour of PFI, on the presumption that conventionally funded projects tend to overrun on time and cost. There is a standard calculation for including optimism bias in the VFM test based on NHS empirical experience of conventional projects.

The MoH and Treasury have remained silent over growing concerns about the ratio of PFI unitary charges to the total annual costs of hospital trusts. Most PFI charges fall within a bracket of representing between 6% and 18% of total annual hospital costs, this compares with around 3% to 6% comparable cost of capital for non PFI hospitals.

11. Results of the audit by national auditing chambers

PFI generally, and for health specifically, has been subject to a number of formal authoritative national audit / scrutiny reports; by the National Audit Office, Parliamentary Select Committee for Health, Parliamentary Public Accounts Committee and the UK Treasury Select Committee.

During the initial period of PFI introduction for the health sector reports tended to be favourable:

- PFI allowed swifter progress to be made on modernisation of the hospital stock than would have been possible through reliance on conventional government financing. It enabled hospitals (the NHS) to spread cost over the lifecycle of the building rather than ‘take a hit’ on reserves through complete funding of projects ‘up front’. A build now pay later regime;
- Projects were generally delivered on time and on cost compared to previous experience of ‘drift – cost and time’ for conventional projects, a result of risk transfer of cost and time overrun to the private operator;
- Lifecycle maintenance, to agreed standards, was guaranteed;
- Where facilities management (catering, cleaning etc) was incorporated in PFI contracts it generally resulted in ‘cost efficiency’ (lower costs).

However, from mid 2000 onwards more and more authoritative reports shifted ground towards increasing criticism of PFI as a suitable model for healthcare. The following is illustrative of the findings of studies and examinations.

*Parliamentary Public Accounts Committee 2011*

- *Concern over value for money* – “We found no clear and explicit justification and evaluation for the use of PFI in terms of its value for money. We accept that the Government gave the Department of Health no realistic alternatives to PFI as the Procurement route to use for these capital programmes;
- **Lack of consistency / value in cost efficiencies** - There are wide and unexplained variations in the cost of PFI facilities services (e.g. catering, cleaning);
- **No lifecycle value testing** - There are no mechanisms built into generic PFI contracts to test the continued value for money of maintenance work during the contract period”.

**Parliamentary Treasury Select Committee 2011**

- **More expensive than conventional funding** – “Private finance has always been more expensive than government borrowing, but since the financial crisis the difference between the costs has widened significantly. The cost of capital for a typical PFI project is currently over 8% - double the long term government gilt rate of approximately 4%. The difference in finance costs means that PFI projects are significantly more expensive to fund over the life of a project. This represents a significant cost to taxpayers;
- **No evidence of added value of PFI** - We have not seen clear evidence of savings and benefits in other areas of PFI projects which are sufficient to offset this significantly higher cost of finance. Evidence suggests that the out-turn costs of construction and service provision are broadly similar between PFI and traditionally procured projects, although in some areas PFI seems to perform more poorly;
- **Poor design and no evidence of innovation**- Design innovation was worse in PFI projects and we have seen reports which found that building quality was of a lower standard in PFI buildings. PFI is also inherently inflexible, especially for NHS projects. This is in large part due to the financing structure and its costly and complex procurement procedure;
- **Off balance sheet debt benefit is the wrong incentive for PFI adoption** - There remain significant incentives to use PFI which are unrelated to value for money: The majority of PFI debt still does not appear in government debt or deficit figures; Government departments can use PFI to leverage up their budgets without using their allotted capital budget—the investment is additional and not budgeted for;
- **Need for change** - These incentives unrelated to value for money need to be removed. Stricter rules and guidelines governing the use of PFI must be introduced”.

**National Audit Office 2011**

- **Long-term risks to service improvement and hospital development from PFI** – “There continues to be risks to the long-term value for money from these contracts. Managing the contracts is complex. The long-term service commitments of PFI contracts and the Trusts’ approach to managing the contracts has limited Trusts’ ability to make efficiency savings from certain areas of the contract, and to drive continuous service improvement. Limitations in performance and cost data restrict the Department’s support to Trusts and increase the risk of value for money being eroded over time;
- **Creation of unmanageable debt pressures** - Historic private finance initiative debt creates substantial pressures for some trusts. Based on responses to our census of hospital trusts received some £61 million of additional tapered private finance initiative financial support in 2011-12 to enable them to cover unitary charges and avoid detriment to core services;
- **Need for MoH bail out subsidy** - The Department has also reviewed the financial plans of 22 NHS trusts with significant private finance initiative schemes, and concluded that in six cases the trusts’ plans are not viable without some level of further central support. A total of £1.5 billion will be
made exceptionally available over the lifetime of these contracts to help resolve problems of viability. The remaining 16 Trusts will be kept under ‘specific financial review’;

- **Inhibits adoption of new service models and hospital reconfiguration** - Long-term commitments under private finance initiative agreements can also limit the scope hospitals have to reconfigure services across different sites;

- **Lifecycle maintenance benefit questioned** - The requirement for buildings being maintained to high standards over the life of the contract is supposed to be a key benefit of PFI. Yet around 20% of hospital Trusts were not satisfied with the maintenance service.” This may prove the tip of the iceberg.

### 12. Risk transfer models/results

One principal benefit cited for PFI is the transfer of risk to the party most suited to manage it. A National Audit Office (2008) report listed the following two key advantages of PFI contracts over conventional procurement:

- a planned and consistent approach to maintenance, as the contractor is under an obligation to maintain the asset in good condition until the end of the contract period and, if maintenance is not undertaken, it risks being penalised for not meeting agreed availability and performance standards; and

- transparency of pricing in that the public sector knows in advance how much it will be paying and the contract is for the provision of services on a whole-life basis. This removes the possibility of asset replacement costs arising unexpectedly in any one year or being delayed in the event of budgetary constraints.

Furthermore the Treasury states a potential benefit of PFI is that it transfers risks, or uncertainty, to the private sector, or, more precisely, it allocates particular risks to the party best able to influence and manage them. The Treasury gives the following risks that the public sector typically seeks to transfer to the private sector in PFI projects:

- cost overrun risk during construction. For example, the private sector is expected to cover extra costs should buildings require more extensive foundations;

- timely completion of the facility. No payments are generally made to the private sector until the asset becomes available, and the contracted service commences;

- meeting required standards of asset delivery. For instance, the private sector is expected to pay for the cost of redesigning the asset, should it not meet required service needs;

- the underlying costs to the operator of service delivery, including the future costs associated with operating and maintaining the asset;

- risk of industrial action or physical damage to the asset, and certain market risks associated with the project. For example, in some hospital schemes, the risk of wear and tear associated with actual volumes of patients treated.

In practice it is now generally agreed that risk transfer has been effectively priced into contracts by the operator resulting in a premium on the unitary charge and has not delivered value for money based benefits. Parliamentary Committees have concluded that risks listed by the NAO and Treasury could have been just as effectively managed through more adequate conventional procurement regimes.
Little attention has been given to the much greater risk of lack of adaptability and flexibility of PFI projects to meet the changing needs of hospitals over their lifecycle e.g.:

- elasticity to meet changes in volume demand;
- functionality to meet changes in operational needs arising from new models of care and clinical innovation;
- retaining intrinsic value over its lifecycle should the building be no longer required.

These risks are retained by hospitals and although to some degree should have been identified and managed as part of the hospital defined output specification. In practice – and universally across almost all PFIs’ – this has not been achieved. PFI operators have consistently refused to accept the risks of changes in volumes (except to very limited degree), clinical risks, quality of care and changes in functional need. It is noteworthy that none of the formal audit organisations / committees listed above has seriously debated clinical related risks arising from PFI projects.

13. Room for innovative approaches

Almost all authoritative studies and reports have either discounted PFI as stimulating innovation or have expressly commented that PFI has inhibited innovation in: hospital design, introduction of models of care, developments in clinical practice and service integration through its emphasis. This is a factor of the need to lower capital cost coupled with rigidity of contracts. There have been no studies that attempt to relate PFI to changes in clinical outcomes, in particular those that may have resulted from so called PFI innovation. Conversely CABE (Commission for Architecture and the Built Environment) has expressed concern over the absence of evidence-based design (where design can contribute in measurable terms to patient outcomes) in PFI projects. The drive for low cost / low risk buildings by PFI operators has priced this feature out of almost all hospital projects. Hospital trusts have been complicit in this in an effort to reduce the scale of unitary charges. Most of the studies and reports referenced above have failed to substantiate claims by the private operators that inclusion of facilities management in PFI contracts has added ‘innovation value’.

14. Management of the PPP contracts

Management of PFI contracts has been studied by the national audit office and reported on in 2010. The results accord with front line managers’ experiences as reflected in informal reviews. The following are key findings:

Scope for improvement - Thirty-three per cent of Trusts are dissatisfied with at least one of the services they receive under their PFI contracts. None rated all services as excellent. Problems with performance have varied and do not suggest a single set of systematic issues.

Cost variances - Available information shows the cost and performance of PFI facilities services are similar to those services in non-PFI hospitals. The cost of each service varies significantly in both PFI and non-PFI hospitals, and there is a large amount of overlap in these price ranges between the PFI and non-PFI groups. Most of the variation in costs cannot be explained using the Department’s current information.

Focus areas for contract management – There are four main areas where Trusts are trying to defend value for money in their interactions with contractors:

- Interpreting the scope of the contract to defend the Trust’s position in any contractual disputes;
• Managing the change process to ensure changes to the building and services are value for money and timely;
• Fulfilling their obligations to ensure intended risk transfer;
• Ensuring that the expected level of performance is delivered.

Investment in contract management - Most Trusts are managing their contracts well day-to-day but need support with certain complex issues. Some Trusts are not, however, devoting sufficient resources to contract management, around 12% have no one assigned to contract management.

Efficiency savings - Trusts are likely to be expected to make efficiency savings over the next few years, but their ability to make savings from their PFI contracts is extremely limited. PFI commitments represent between 6 and 18.3 per cent of each Trusts’ operating costs. This commitment is relatively fixed in real terms.

MoH support - The Private Finance Unit’s ability to further support Trusts to manage their contracts is, however, limited by a lack of performance and cost data. This restricts the MoH’s ability to assess value for money and to target its resources towards assisting Hospital Trusts most in need of help.

The short-term view - “We found that most PFI hospital contracts are well managed and the low level of deductions (from the unitary charge under penalty clauses) and reasonable levels of satisfaction indicate they are currently achieving the operational performance expected at the point the contracts were signed.”

The longer-term strategic view - “There continues to be risks to the long-term value for money from these contracts. Managing the contracts is complex. The long-term service commitments of PFI contracts and the Trusts' approach to managing the contracts has limited Trusts’ ability to make efficiency savings from certain areas of the contract, and to drive continuous service improvement. Investors and contractors will naturally seek to maximise their profit margins, and we have seen examples where this is at the expense of the Trust. Limitations in performance and cost data restrict the Department’s support to Trusts and increase the risk of value for money being eroded over time.”

15. Experience positive/negative/Lessons learnt

There has been a relatively consistent trajectory in the findings of studies and analysis of PFI from its initial introduction in the health sector in 2000 to the present time. Initial results seemed satisfactory in meeting expectation but as experience grew and studies became more rigorous PFI was increasingly questioned as to its suitability for funding capital infrastructure (and facility services) in the health sector. The initially promoted benefits of risk transfer, innovation and value for money have been largely discounted by authoritative reports. The benefit of PFI taking capital spending off the government’s balance sheet has now been criticised as being unrelated to achieving performance improvement in health sector efficiency – the wrong type of incentive for applying PFI.

However, many reports have concluded that PFI at least unlocked the expansive hospital rebuilding programme of the past decade. Even here there has been criticism. Many commentators suggest that the relatively easy access to PFI capital has created a hospital capacity bubble that will be difficult to deflate given the rigid nature of PFI contracts.

More significantly two new factors have all but ruled out the continued use of PFI (in its current form) for health:

• The credit crisis and subsequent problems in the banking sector has led to the collapse of monoline insurers (key players in the PFI system) and
banks have become risk averse to funding projects in a health sector that in the UK is facing unprecedented levels of cost saving and austerity measures – in addition to the current wholesale reform of the service;

- A recent government report on the financial sustainability of hospitals in the current and projected economic climate has drawn attention to the perverse impact on quality of care and financial stability of hospital trusts (those with PFIs’) as a consequence of the high levels of unitary charges, when compared with non PFI hospitals. One major public hospital South London Healthcare NHS Trust, has been dissolved and placed under special ‘government administration’ due in large part to an “unaffordable and unresolvable” PFI contract charge and deficit.

The UK Treasury has announced (November 2012) ‘PFI 2‘ in an attempt to resolve problems with the original PFI model and regenerate interest in PFI by the banking and construction sector. Response within the healthcare sector so far has proved lukewarm. The key ‘new elements’ in the revised PFI 2 model are:

- Under the plans, the taxpayer (government) will take a share of up to 49% in new projects. The current PFI regime has been criticised as being too generous to private contractors;
- The new scheme will be quicker and more transparent;
- It will allow the public sector to appoint directors to the boards of individual projects, as well as requiring the projects to publish financial performance figures every year.

The aim is to revitalise the ‘partnership’ ethos of PFI that in practice has never materialised under the original model, for example, to the extent that PFI contracts are now traded as a form of security so hospital trusts may not even know who their so called partners are.

The focus of attention in the current reform of the healthcare sector in the UK is shifting service emphasis from the existing hospital centred model to more care delivered in more diverse community settings by a more diverse range of service providers. This is trend that is apparent across Europe. PFI in its original form – and maybe in its new mark 2 form – may be found to be wholly unsuited to facilitating this change in healthcare delivery strategy.
Project Case Study PFI Norfolk and Norwich

1. Hospital type and description

The Norfolk and Norwich University Hospital (Trust) is a National Health Service academic teaching hospital located on the outskirts of Norwich, within the Anglian Region. The hospital serves an acute and tertiary catchment population of over 800,000. It treats around 700,000 patients per year, referred by over 100 local GP practices and other local acute hospitals.

The new Norfolk and Norwich Hospital (NNUH) resulted from the replacement of two former hospitals, St Stephens Hospital (the main Norwich city hospital) and the smaller West Norwich Hospital on the outskirts of the city (comprising 1,207 beds in total). By the 1990s the backlog maintenance needs of the two hospitals (maintenance that is necessary to prevent the deterioration of an asset or its function but which has not been carried out) was assessed at £21 million. In the early nineties a preliminary decision was taken to close the two existing hospitals and build a new hospital on a green field site to provide facilities necessary for a teaching hospital fit for the 21st century. It was the first large-scale hospital in the NHS to be provided under the UK Private Finance Initiative scheme. It offers a full range of public acute / tertiary hospital services. It has a small private patient unit.

In 1994 an outline business case was developed which proposed a new hospital of 701 beds, a very significant reduction on the then current provision. The reasons given for the reduction related primarily to efficiencies anticipated from changes in clinical practice, for example growth in day case and minimally invasive surgery, associated with the availability of a new and "more efficient" hospital building. However other factors came into play:

- Similar downsizing proposals were becoming a universal feature of almost all other new hospital developments in the UK expected to be funded through a PFI arrangement;
- the 701 beds was the minimum number thought to be required in a study done for the East Anglian area by the Department of Health in 1994 (the Wooler, Kirkup report), the study also suggested a medium option of 790 beds and a high option of 910 beds;
- subsequent discussion about the NNUH at the UK Parliamentary Select Committee on Health in 1999 came to the view that ‘affordability’ was a major factor in driving down bed provision.

From the outset there was therefore a strong claim that the hospital size was squeezed to meet the financial affordability needs of a PFI solution to capital financing.

In 1995 a 701 bed hospital was approved in principle, subject to it being provided through a PFI deal, the bed numbers reflecting expected future demand based on 1994 performance.

However, in the period between the initial outline business case (1994) and final business case closure by 1998, admissions across all specialties had risen unexpectedly by over 4% per annum (the projected number of discharges and deaths expected in 2003-04 had already been exceeded by 1996-97). The Trust therefore had to revise its clinical demand estimates and increased bed numbers to 809 during the tendering phase. Further concerns over the scale of reductions in bed numbers (compared with the original 1,207) gave rise to another increase to 953 beds (1999). This reflected continuing growth in patient demand during the early stages of construction of the new hospital beyond the earlier revised estimates. This second increase in bed provision necessitated negotiating a variation to the PFI contract.

Site work on the new development commenced in 1998, the hospital was
commissioned in August 2001, 5 months ahead of schedule and on cost (within the contractors estimates). The sequence of changes in bed numbers is summarized below:

<table>
<thead>
<tr>
<th>Description</th>
<th>Bed Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed complement of two pre-existing hospitals</td>
<td>1,207</td>
</tr>
<tr>
<td>Outline business case 1994</td>
<td>701</td>
</tr>
<tr>
<td>Final business case 1998</td>
<td>809</td>
</tr>
<tr>
<td>Subsequent contract variations 2000/1</td>
<td>953</td>
</tr>
<tr>
<td>Subsequent additional bed provision after commissioning 2003 (see below)</td>
<td>989</td>
</tr>
</tbody>
</table>

The final bed complement of the new hospital provided 18% fewer beds than the combined total of the hospitals it replaced.

The repeated use of conservative planning strategies provided little confidence that the new facility was appropriately sized and sufficiently flexible for future use. Nevertheless, the building was designed to be internally adaptable and to accommodate further sizeable increases in bed numbers, ambulatory care, and clinical support services. The functionality goal in the design was to be able to meet the operational requirements laid down by the Trust and demonstrate that the hospital could be expanded to cater for future clinical need. Conversely the Trust also believed that it would be able to function effectively and without financial risk even if there were a 20% reduction in the number of inpatients by closing down parts of the hospital, scaling down maintenance services, and letting out redundant areas. In other words the Hospital Trust seemed (at the time) to have set wide design parameters to manage significant variations in demand.

Flexibility has in practice been limited by the high occupancy rate of the hospital. The facility was designed for an 85% occupancy rate (a target set by the Department of Health as a condition of approval of the scheme) but by 2006 the hospital was already running at over 90% occupation rate. Since the hospital’s opening in 2001, the demand on clinical services has steadily grown. The increase in the demand for clinical services has required further adaptations to improve flexibility within the building, table 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of minor works</th>
<th>Total cost of works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>963</td>
<td>£997 000 (€1 096 000)</td>
</tr>
<tr>
<td>Year 2</td>
<td>665</td>
<td>£238 000 (€262 000)</td>
</tr>
<tr>
<td>Year 3</td>
<td>744</td>
<td>£300 000 (€330 000)</td>
</tr>
<tr>
<td>Year 4</td>
<td>467</td>
<td>£96 000 (€106 000)</td>
</tr>
<tr>
<td>Total</td>
<td>2839</td>
<td>£1 631 000 (€1 794 000)</td>
</tr>
</tbody>
</table>
Table 1. Minor works in the first four years of the Norfolk and Norwich University Hospital (2001/5) including provision of extra beds.

The result of this expansion work was to increase capacity even further to 989 beds. This meant that almost all of the design overspill capacity was, within 5 years of opening, already exhausted, and that there was only limited scope for further change. According to the Trust however the hospital will grow rather than shrink in the future as critical care demand is expected to increase.

The cost to NNUH for increasing its bed numbers after the initial contract had been signed (necessitating renegotiation) has been calculated by the national audit office as increasing the annual PFI charge by £7.1 million per annum. This is disproportionate to the charges relating to the bed provision contained in the initial contract and reflects the punitive costs associated with any post contract variation to the building design.

It would seem from this review of changes in the bed numbers of the hospital that the original reduction from 1,207 to 701 was simply untenable, the result of a combination of weak forecasting and planning and financial pressures to ‘build down’ to an affordable level. The subsequent increase in provision up to 989, an increase of 40% over the initial business case proposal, seems again to be more of a forced expediency than the result of any long-range strategic reappraisal of need. There is no clear evidence whether what appears to be short-term hand to mouth planning decisions were primarily a factor of the PFI status of the project or simply down to ineffectual business case development. The parliamentary health select committee (1999) tends strongly towards the view that pressure to ensure that the cost of the hospital fitted within a PFI affordability envelope was the principle cause of the optimistic downsizing in bed numbers.

2. Why PFI and process of award

From the outset of planning in 1994 it was evident that the preferred method of financing the development would be through a PFI deal. PFI, by that time, had become the option of first choice for financing large-scale capital investments by the Conservative government of the day. By 1998 (at the time of submission of the final business case) the incoming new Labour government had left few doubts that PFI was the only practical option available despite the need to expose the final business case to a value for money comparison with a conventional public procurement model (see generic PFI analysis for a further explanation of the policy stance). In fact the Hospital Trust had been warned (by the Department of Health) that failure to agree a PFI deal would result in the project not going ahead. PFI contracts now represent over 90% of all major hospital infrastructure investment projects (new hospitals) since 1998.

The NNUH project proposal included provision of the building and associated facilities management (FM) services, primarily catering, portering and cleaning services. Subsequent national audit office reports (see generic study) have concluded that FM costs have remained mainly neutral as between PFI and non-PFI provision with little evidence of improved cost efficiency. For the purposes of this analysis FM has been regarded as neutral for this reason. Furthermore, detailed comparative FM breakdown costs are unavailable – commercial and in confidence (C in C).

The NNUH tender was therefore issued under PFI conditions applying at that time. In February 1995 the Hospital Trust invited expressions of interest from qualified consortia for the construction, part operation (FM element) and financing of the proposed hospital in accordance with PFI requirements. In 1996 three private sector tenders were considered from:
Octagon Healthcare was chosen as the preferred bidder on the basis of lowest cost relative to meeting the output specification set by NNUH. The contract period of the PFI project was 34 years (with FM services to be market tested every 5 years). This was the largest single build PFI deal agreed at that time.

All business cases for new hospital developments are required to compare the costs of the PFI option with a public sector comparator, PSC, (the hypothetical cost of public procurement for a directly similar project). There is insufficient evidence to draw any safe conclusions on the process applied to NNUH. Firstly the publicly available versions of the Business Cases have omitted (on grounds of ‘commercial confidentiality’ C in C) all the detailed comparisons of the cost of the PFI version and the Public Sector Comparator (PSC); secondly much larger additions seem to have been made to the base PSC cost to cover optimism bias than recommended by the Department of Health. The Department of Health recommended average (optimism bias) figure to be added to the public sector comparator (to reflect anticipated risk of cost overrun of public schemes – see generic study) was around 13%. The Norfolk and Norwich comparator uplift was 34.22%, almost three times as high and astonishingly precise. The Chair of the Select Committee on Health said in 1999 in referring to NNUH; “.. the full business case does not tell us the full business case” (House of Commons Health Committee 1999).

The Select Committee on Health therefore could not ascertain the details of the value for money decision-making process in the absence of relevant comparative financial assessments (withheld as being C in C) but nevertheless expressed concern over the extraordinarily high (optimism bias) adjustment to the base line public sector comparator. The Select Committee subsequently noted in 2002 that “the VFM margin between PFI projects and the PSC is relatively slim and according to the Department of Health averages out at 1.7% in favour of PFI.” (Note above; the adjustment figure added to the NNUH PSC was 34.22%).

The overall financial nature of the PFI contract is however available. The PFI company financing NNUH is Octagon Healthcare (1). The following is a summary of the financial implications of the PFI deal:

<table>
<thead>
<tr>
<th>Costs £ million – adjusted to common base line, 1998 prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic construction cost of the hospital</td>
</tr>
<tr>
<td>Cost as shown in NNUH Accounts (1)</td>
</tr>
<tr>
<td>PFI contract set up costs (borne by NNUH), legal and consultancy fees</td>
</tr>
<tr>
<td>PFI set up costs (included in Octagon costs and recovered as part of the PFI deal), legal and consultancy fees</td>
</tr>
<tr>
<td>Total value of annual rent paid by NNUH for occupation of the building over the 35 year contract period</td>
</tr>
<tr>
<td>Cost multiplier of total PFI rental cost vs construction costs (replacement</td>
</tr>
</tbody>
</table>
Costs £ million – adjusted to common base line, 1998 prices

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual additional rent paid under the PFI contract compared with pre-PFI capital costs (adjusted to 2007 prices)</td>
<td>18 million per annum</td>
</tr>
</tbody>
</table>

(Note 1) The difference is accounted for by ‘facilitating costs’ e.g. site access roadways, ICT, etc.

The two notable figures emerging from this analysis of costs (a more detailed breakdown is unavailable (C in C) are:

- The multiplier effect of PFI on rent vs construction cost of 2.9 times on base cost (replacement rent). This is about average for PFI projects excepting that for some recent projects this has risen as high as 4 times as high, reflecting higher cost of borrowing;
- The additional annual (rental cost) for occupation of the building of £18 million per annum compared with pre-PFI capital costs under standard NHS accounting principles (including depreciation etc).

3. Sources of financing

The Octagon PFI consortium (special purpose vehicle SPV) initially raised the majority of capital funding through bank finance (no details are available, C in C). It would have been structured as senior debt capital, junior debt capital and equity capital. It is known that the equity shareholder capital value is comparatively low at just over £1 million.

4. Refinancing

In 2003, 2 years after opening the NNUH project was refinanced by Octagon Healthcare. The principle being that initial construction cost and time overrun risk had been successfully managed by the company and the remaining principal risk was the much lower one of lifetime building maintenance – thus the cost of borrowing for the operating period of the contract would be much lower (reflecting the lower risk nature of the loan). In addition the PFI market had by then become more mature again resulting in lower borrowing costs. Furthermore, Octagon also used cheaper bond financing as opposed to bank finance. The value of the refinancing bond was £129 million. The resultant immediate gain (over the lifetime of the contract) to Octagon’s equity shareholders was £95 million – who had contributed just over £1 million to the original project finance.

Although the Department of Health and HM Treasury were aware of the possibility of companies refinancing PFI deals (and had agreed a voluntary code with the private sector) the speed and scale of this move had not been anticipated. There was consequently no provision for claw back of profit from Octagon (other than reliance on the voluntary code). However, NNUH eventually managed to negotiate a payback on the windfall profit to the value of £34 million - 30% of the total profit made by Octagon - spread over the remainder of the contract. To achieve this NNUH conceded an extension of the contract (first break-clause) from 2032, as originally signed, to 2037. This was subsequently described by the Chair of the Public Accounts Committee (PAC) 2008, as “the unacceptable face of capitalism.”

On further examination of the way in which the extended contract tied the hands of the hospital, the PAC discovered that if the Hospital Trust wished to end the PFI contract early it would have to pay £257 million in liabilities –
about double the amount due under the original contract. All authoritative bodies examining the refinancing deal commented on the high price paid by NNUH to achieve a share of the windfall profit and the relatively weak negotiating stance taken by the Hospital.

The UK Treasury and Department of Health have subsequently closed the loophole with an agreed (with the private sector) deal on a more equitable and less punitive share of future windfall profits arising from refinancing. This provides for a 50/50 share between the Hospital Trust and SPV on all PFI projects with no other pre-conditions. This was retrospectively applied to NNUH. NNUH receives its share in the form of reduction on the unitary charge over the lifetime of the contract.

5. Contact structure

The NNUH contract structure follows the standard model as applied to all NHS PFI projects (see generic study). NNUH have adopted an “open approach” to explaining the structure to their staff and local population. The following description is based on the most recent information published by NNUH:

- The NHS retains ownership of the 63 acre site and in effect pays rent for the occupation and use of the building provided by Octagon;
- Octagon will maintain the building, to an agreed quality standard, over the lifetime of the contract, 35 years. Serco (part of the PFI consortium) will provide the building maintenance service under a sub-contracting arrangement with Octagon;
- Facilities services, primarily cleaning, catering and portering will be provided under a separate sub-contract by Serco;
- The PFI contract costs £42.6 million per year, 13% of the overall NNUH budget (at 2009/10 prices). Note: This is at the top end of the ratio scale for PFI hospitals;
- The annual operating budget of the hospital (at 2009/10 prices) is £325 million per annum.

Facilities management services are re-tendered every 5 years as part of the market-testing regime. So far Serco have been awarded a renewal of contract as a result of testing in 2006 and 2011.

The structure of the contract relationship with the PFI consortium (Octagon SPV) is shown below, including shareholders and the primary bondholder:
Octagon is structured so that most of its functions are passed to its sub-contractors, primarily Serco.

Octagon’s primary functions are specified as:

- “To maintain the building and effect major repairs;
- To enforce the sub-contracts (for services that form part of the PFI deal);
- To maintain a range of specified insurances;
- To provide the principal point of liaison with the hospital trust;
- To effect all payments due under the contract”.

Serco are responsible for the following FM services:

- Security, grounds maintenance and car parking;
- Laundry and waste;
- Energy;
- Catering, cleaning and portering;
- Building maintenance – as part of the building availability responsibility.

The NNUH Trust has the following responsibilities in managing the contract (as described in its various published documents):

- “To request all variations to the services received and the maintenance / use of the building;
- To monitor the services provided against the agreed performance standards;
- To identify and resolve all performance and quality issues directly with service providers;
- To identify and manage any claims for under/non performance of contract provisions;
- To identify and manage all disputes with Octagon as may be necessary;
• To ensure that Octagon are aware of all information and policies needed to enable them to fulfil contract agreements;
• To develop procedures and policies that improves awareness and use of all services under PFI service agreements across the NNUH Trust.”

NNUH Trust also makes public reference to the previous problems of refinancing. It explains that in late 2003 the Hospital Trust entered into an agreement with Octagon to share the benefits of the refinancing scheme, including:

• “The Trust receives a benefit of £3.5 million per year that is taken as a reduction in payments made to Octagon. The annual saving is index linked;
• The financial gain from the refinancing arrangement for the years 30 to 35 is split on a 50/50 basis as opposed to the 70/30 initially;
• The minimum contract period has been extended by 5 years.”

Overall the NNUH Trust fulfil its responsibilities for “raising awareness of the services provided under the PFI deal.

There does not appear to have been any problems from either side in the overall management of the contract – except for the refinancing issue (above).

6. Payment mechanism

The Payment mechanism, as between the NNUH Trust and Octagon, for the contracted services provided, is in the form of a monthly unitary (availability/usage) charge that also includes the FM charges. The breakdown of the £42.6 million per annum payment (at 2009/10 prices) is as follows:

<table>
<thead>
<tr>
<th>Usage payment (unitary charge)</th>
<th>Value £ million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage Fee (building)</td>
<td>29.00</td>
</tr>
<tr>
<td>Facilities Management</td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td>3.16</td>
</tr>
<tr>
<td>Grounds maintenance</td>
<td>0.13</td>
</tr>
<tr>
<td>Domestic (cleaning) &amp; Portering</td>
<td>5.25</td>
</tr>
<tr>
<td>Catering</td>
<td>2.26</td>
</tr>
<tr>
<td>Car Parking</td>
<td>0.06</td>
</tr>
<tr>
<td>Security</td>
<td>0.44</td>
</tr>
<tr>
<td>Laundry</td>
<td>1.47</td>
</tr>
<tr>
<td>Waste disposal</td>
<td>0.83</td>
</tr>
<tr>
<td>Total</td>
<td>42.60</td>
</tr>
</tbody>
</table>

This is the only detail that appears in the Trust’s annual accounts.
A small element of the payment is linked to the numbers of patients admitted (the greater the throughput the more wear and tear on the building) therefore the more patients seen the greater the payment. The standard threshold levels tend to be generous and the additional payment level small and rarely triggered. Conversely the Hospital Trust can deduct payments to Octagon should the building, or part, be unavailable, again rarely triggered. These provisions are incorporated in the contract agreement but no specific details are available for NNUH (C in C).

The financial burden of the high PFI charge on the NNUH Trust has however been recognized by the Department of Health through a supplementary payment (known as smoothing funds) made by the Department to NNUH of £3.8 million per annum, in effect a subsidy to enable the Trust to “adjust” to the higher PFI charges. This commenced in the early stages of the PFI contract. The funding is guaranteed by the Department of Health for 30 years: £114 million over the lifetime of the contract (not adjusted for inflation). This equates to 2/3rd the total cost of the original building. A surprising finding. This provision further recognizes that the NNUH in common with all NHS hospitals irrespective of status (PFI / non-PFI) is paid on a national tariff scale (based on weighted DRGs) with no scope for individual variation.

The problem for the NNUH Trust in looking ahead is that recent strategy decisions by the local Primary Care Trust (that commissions patient care on behalf of the Department of Health) reflects the ongoing English NHS drive towards higher efficiency savings year on year. The local ‘QIPP (Quality, Innovation, Productivity and Prevention) and Reform Plan’ for the years 2011-2014 suggest that NNUH will face a cost efficiency saving requirement of £55 million over that period, made up of £15 million in imposed tariff reductions (a universal policy across the English NHS) and £40 million ‘QIPP’ measures, which includes proposals to move some services away from the hospital. As the budget income of the NNUH declines, one constant is that the PFI contract requires year by year inflation linked increases in the annual unitary charge payments for the hospital, regardless of what services are provided there.

In 2006 NNUH reported that it was heading for a deficit of over £14 million (Finance Director report to the NNUH Board), by the end of the financial year 2006/7 this had been turned around to result in a surplus of £867,000. The Audit Commission’s "Review of the NHS financial year 2006/7" reported that the trust was delivering “amongst the best financial management of any NHS Trust in the country,” however, the savings target seems to have been achieved primarily through large-scale job losses.

The surplus in 2010/11 was £4.8 million, but by March 2012 the hospital had slipped to a deficit of £9.4 million, 5.8% of its annual operating budget. This seems associated with the higher levels efficiency savings targets and measures introduced by the Department of Health in 2011/12.

7. Costs per patient comparison

There is no relevance to cost per patient comparison as all NHS hospitals are paid on national standard tariff case based payment. Some additional national weightings are applied to all teaching hospitals however this is unconnected with PFI status and simply reflects the additional cost burden of medical education and research. Note: see also comments re PFI smoothing payments above.

8. Average LOS

From the outset the new hospital was planned to achieve a very high rate of bed occupancy – 85%. This was a feature of the business case and reflected the ‘normative’ target set by the Department of Health for new hospital developments, in practice PFI hospitals, to ensure affordability of the
generally higher levels of ‘usage payments’. However by 2007/8 the occupancy figure had reached 94%. This meant that during periods of peak demand the hospital had to declare frequent alerts, red, a threshold of between 92% and 98% means only emergency patients can be admitted and black over 98% means diversion of emergency patients to other hospitals caused through a lack of available beds. There are two ways in which NNUH could deal with this problem of frequent closure, to step up turnover of patients, or to treat a growing proportion of patients as day cases. The following figures demonstrate how little scope existed.

<table>
<thead>
<tr>
<th>Year</th>
<th>Average length of stay (days) NNUH</th>
<th>Average length of stay (days) English hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002/3</td>
<td>4.3</td>
<td>7.9</td>
</tr>
<tr>
<td>2007/8</td>
<td>4.2</td>
<td>5.7</td>
</tr>
<tr>
<td>2011/12</td>
<td>3.9</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Source NHS HES data.

It can be noted that NNUH did not improve on the average length of patient stays over the 5 year period after the opening of the hospital and only marginally thereafter.

The figures for overall patient activity for the period 2001/2 to 2007/8 are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>In patients (000) pa</th>
<th>Day cases (000) pa</th>
<th>Out-patients (000) pa</th>
<th>Accident and Emergency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/1</td>
<td>84.9</td>
<td>38.2</td>
<td>336.1</td>
<td>69.7</td>
</tr>
<tr>
<td>2007/8</td>
<td>71.1</td>
<td>56.2</td>
<td>444.5</td>
<td>82.9</td>
</tr>
</tbody>
</table>

Source NNUH.

Note: the apparent drop in in-patient numbers is due to a change in the data collection definition in 2005, in fact numbers continued to rise, below.

The impact of these overall trends may be summarized as follows:

<table>
<thead>
<tr>
<th>Patient category (adjusted where necessary for redefinition)</th>
<th>% Increase per annum 2001/2 to 2007/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Patients</td>
<td>+3.2</td>
</tr>
<tr>
<td>Day cases</td>
<td>+5.7</td>
</tr>
<tr>
<td>Out-patients</td>
<td>+4.1</td>
</tr>
<tr>
<td>Accident and emergency</td>
<td>+2.5</td>
</tr>
</tbody>
</table>

The pressure on bed capacity caused by the rise in emergency admissions was in part offset by a reasonable improvement in day case rates. This is a common trend across all NHS hospitals.
9. Day Case rates

The latest figures available, 2011, shows that the ratio of day cases to all elective surgery, compared with local hospitals, was near average at just over 80%. This exceeds the NHS plan target of 75%.

NNUH Day case rate as a % of elective surgery (yellow) compared with hospitals in the Anglian Region.
Source, British Association of Day Surgery (BADS).

The average rate masks interesting variations:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>NNUH day case rate</th>
<th>BADS Target day case rate 2011</th>
<th>Top 5% Hospitals 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lap Chole</td>
<td>9% (2008)</td>
<td>60%</td>
<td>65%</td>
</tr>
<tr>
<td>Bunions</td>
<td>45% (2011)</td>
<td>85%</td>
<td>88%</td>
</tr>
<tr>
<td>Mastectomy</td>
<td>11% (2011)</td>
<td>30%</td>
<td>14%</td>
</tr>
</tbody>
</table>

NNUH performance against selected BADS target rates.
Source, BADS.

Observation: The day case performance is surprisingly modest. There are three reasons to have expected it to be much higher:

- At outline and final business case stages it was explained that improvement in day case rates would in part compensate for the reduction of 18% in bed numbers compared with former provision;
- It might have been expected that a new hospital designed against this criteria would have factored in more day case capacity to enable and stimulate higher rates of performance;
- There seems to have been no significant emphasis on achieving higher than average day case rates to contribute to meeting the high level of PFI charges.
There is no evidence to suggest that adoption of the PFI model for NNUH directly co-relates or contributes to any of these performance rates and targets. There is no evidence that the so called ‘innovation’ benefits of PFI have materialised.

On the contrary, further examination of data shows that during periods of hospital restrictions on admissions the local PCT (Commissioner) incurred additional costs to purchase private hospital capacity to compensate for NNUH non-availability, £0.8 million in 2004/5 and at least £1.4 million in 2007/8. In other words the low average length of stay was more directly related to the pressure generated by the smaller size of the hospital compared with pre-PFI bed numbers, (987 vs 1207).

The Select Committee on Health, 2002, paragraph 77, summed up the confusion in attributing efficiency gain to PFI saying that; “what is not in doubt is the fact that lack of transparency in the PFI process has been partly responsible for the impression that PFI can be equated with a reduction in bed numbers other than on affordability grounds.”

10. Average surgery delay

The English NHS acute hospitals have a centrally set target of treating 90% of patients within 18 weeks of referral, otherwise known as Referral to Treatment, RTT. As at 2011 NNUH announced that it would fail to meet the RTT target for that year. The number of patients waiting more than 6 weeks had increased from 37 to 142 over the six months period between April and September of that year.
Closely examining figures (2011) for representative indicator treatments, hip replacement and carotid artery surgery shows the following:

<table>
<thead>
<tr>
<th>Treatment</th>
<th>NNUH Average waiting time for admission (days)</th>
<th>Addenbrooks* Hospital average time for admission (days)</th>
<th>National average time for admission</th>
<th>NNUH average length of stay (days)</th>
<th>Addenbrooks hospital average LOS</th>
<th>National average LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip replacement</td>
<td>132</td>
<td>115</td>
<td>103</td>
<td>6.5</td>
<td>6.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Carotid artery surgery</td>
<td>40.5</td>
<td>43.5</td>
<td>29.5</td>
<td>4.0</td>
<td>2.8</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source ‘Dr. Foster Intelligence’.

It can be seen that NNUH underperforms in comparison with national averages. *It also performs slightly worse than a directly comparable nearby teaching hospital in the Anglian Region, Addenbrooks Hospital, Cambridge (Non-PFI – except for a PFI financed extension that came on stream in 2009).

Note: some allowance must be made for the higher than average LOS in recognition of the teaching roles of NNUH and Addenbrooks.

NNUH has a relatively low readmission rate for emergency admission and is in the top quartile for teaching hospital performance, as shown below:

Readmission within 28 days following emergency admission, compared against NHS Teaching Hospitals (July – Dec 2011).

Performance for readmission following elective admission is directly comparable with the emergency rates shown above, NNUH is again in the top quartile.

Source Dr Foster Intelligence.

A survey of NNUH adoption of an NHS initiative – early supported discharge (ESD) – designed to improve discharge procedures for acute hospitals showed that across most conditions, little progress had been made on implementation for the majority of main clinical conditions. This is surprising given the need to service a high PFI charge. (source Dr Foster Health).
As above there is no evidence of co-relation between performance and PFI provision of the hospital building.

11. Satisfaction surveys

In 2011 NNUH conducted a large-scale (2,200 patient) survey:

- 91% of patients indicated they were “satisfied, or very satisfied” with their care;
- In positive terms:
  - 801 patients commended staff attitudes;
  - 480 commended staff performance;
  - 120 convenience of service;
- In negative terms:
  - 79 patients criticized waiting times in clinics;
  - 40 criticised care parking;
  - 25 had concerns about staff performance.

Source NNUH; the survey was conducted jointly by NNUH and Serco (the facilities management sub-contractor). These are the only details published; no access to the full survey model is available. The survey did not cover the quality of clinical treatment for which no surveys have been designed, conducted or planned.

Clinical outcome indicators are collected independently by Dr. Foster intelligence and HES for national comparison.

NNUH is subject to inspection by the Care Quality Commission (CQC), an autonomous ‘quality of care’ inspectorate acting on behalf of the NHS. NNUH currently meets all standards set for the quality of patient care. The CQC does not survey clinical outcomes. An indicative survey result is shown below, for the question – “do you feel you were treated with dignity and respect whilst in hospital?” maximum score 100, over 90 is within standard:

Source: Care Quality Commission.

The inspection report stated "People who use the service can be assured that they will be provided with respect, dignity and privacy by the staff during their stay in hospital. However, we observed that some improvements were needed”.

12. Average mortality

The hospital performs just below standard for average mortality (HSMR) but significantly worse than the comparator (Addenbrooks) teaching hospital, as at 2010/11.
<table>
<thead>
<tr>
<th>Hospitals</th>
<th>Overall 1 year mortality rate</th>
<th>Overall 3 year mortality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>NNUH</td>
<td>103.5</td>
<td>103.55</td>
</tr>
<tr>
<td>Addenbrooks Hospital</td>
<td>79.3</td>
<td>78.82</td>
</tr>
<tr>
<td>National average</td>
<td>100.0</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source Dr Foster Intelligence.

By 2011/12 NNUH had improved its performance, as shown below, but not proportionately against the Addenbrooks Hospital (listed here as Cambridge). Other local non-teaching hospitals are also included for comparison.

Source Dr Foster Intelligence.

Between 2002 and 2006 the hospital saw 65 patients die from MRSA, (making it one of the ten worst hospitals in the United Kingdom in terms of deaths from this infection). Although this situation has been recovered to significant degree, Monitor (the independent regulator of Foundation Trusts) noted that NNUH “had nevertheless missed some of its quarterly targets for overall infection control rates for 2012.” Source, Monitor and Dr Foster Intelligence.

Again there would not appear to be any co-relation of results to the adopted PFI model.

13. Lessons learned

The lessons learned relate to the following:

- The impact of PFI on hospital planning processes;
- Adaptability in meeting future changes in demand and patient need;
- Value for money decision-making;
- Affordability and the (operating) cost implications of PFI;
- Effect of PFI on clinical and operational service;
- Openness and transparency and public reaction to the PFI model;
- Competence and capacity to implement PFI projects;
- The future of PFI in the healthcare sector;

13.1. PFI and Hospital Planning

From the moment the Department of Health signalled PFI as the ‘only practical solution’ to financing the new hospital, the primary consideration was agreeing a minimum capacity model (bed configuration) that allowed the NNUH to afford the higher level of (usage) charges associated with PFI. This strategy of compliance with a PFI process driven outcome overwhelmed any consideration of long-range strategic visioning and innovative concept development. The only tangible benefit seems to be that PFI enabled the accelerated provision of the new hospital.
Recent pan-European studies demonstrate the benefits of basing new hospital planning on newer service concepts that reflect continuous changes in models of care, changing clinical demand (associated with ageing and chronic illness) and new principles of patient flow within and across the local healthcare sector. The key message is that any PPP solution should support and maintain the integrity of the strategic vision and facilitate a cost effective capital solution – as opposed to dominating and compromising these needs as the NNUH PFI model seems to have done.

13.2. Adaptability in meeting future changes in demand and patient need

The output specification required by NNUH related primarily to capacity (bed provision) – the design was expected to adapt to future increases in demand. Within a few years of opening this flexibility had been exhausted. Furthermore the design was required to comply with central (Department of Health) standard ‘building guidelines’ relating to spatial allocation and cost ratios. The result; a building with a ‘modern environment’ but wholly conventional in concept – territorial based specialty departments, conventional ward configuration (very low ratios of single rooms, 30%, compared with 100% in most new European hospitals) and little attention paid to the need for future functional change. The rapidity of change in clinical technologies, new models of care and changing needs of patients will place the hospital under extreme pressure as the design concept – locked in place with a rigid contract structure – seems ill equipped to respond. The lesson: future hospital planning and design must take into account and provide for the changing nature of healthcare delivery and the anticipated shift of more care into local community settings. Under PFI the PFI company has no contractual accountability to share and manage the risk of changing capacity and functional need. This has been identified as one of the key shortcomings of the PFI model.

13.3. Value for money decision-making

The lack of transparency and liberal application of adjustment figures when comparing the PFI model with a hypothetical (public sector comparator) model has undermined confidence in the PFI process. Subsequent Parliamentary committees have called into question the value for money basis of PFI projects (see PFI generic study).

13.4. The (operating) cost implications of PFI

The PFI usage charge to NNUH represents around 13% of its total annual operating budget, £18 million per annum at (2007/8 prices). This is fixed, subject to an inflation escalator. It is in effect a first charge on the hospital’s operating budget irrespective of patient volumes (and associated income). In common with almost all English NHS hospitals NNUH now faces year on year efficiency targets, and a local reform plan that aims to shift more hospital care into community settings. The hospital has virtually no room for manoeuvre.

Although it is difficult to prove cause and effect of the slip into deficit by NNUH, circumstantial evidence suggests that the high cost and inflexibility of the PFI model is a major contributory factor as the call for ever increasing efficiency savings in the NH ratchets up. The lesson, unless the PFI deal is in some way related to managing the risk of change – an open flexible contract – PFI hospitals will be exposed to significant financial stress if facing future loss of income (volume or tariff reductions) or the need to meet (cash releasing) efficiency targets. On a final authoritative note: the Audit Commission (2006) has identified an association between large new building projects (almost all PFI schemes) and financial deficits in the NHS.
13.5. Effect of PFI on clinical and operational service

The connection between PFI (almost wholly building related) and clinical practice has not been reliably studied in the NHS. Clinical performance does not appear to co-relate to the PFI status of NNUH when compared to other hospitals (national averages and a local comparator teaching hospital). More significantly, recent modest improvement in mortality and overall average LOS seem more directly attributable to NNUH improvements in its clinical governance model (from 2008 onwards). Source: NNUH ‘Quality Account 2011/12’.

13.6. Openness and transparency

The Department of Health guidance on the availability of PFI related documents points out that the initial and subsequent key documents should be released to the public “largely intact.” In practice most NHS Trusts (including NNUH) release only one copy which is lodged in the local public library (no information is available on line). Furthermore in the case of the NNUH the document is far from intact with crucial sections left blank and stamped ‘commercial in confidence’ (C in C). This explains the frequent reference to this in this study. Even authoritative bodies such as the national audit office and parliamentary committees have found it difficult if not impossible to overcome this restriction. This has also hampered what might otherwise be constructive research. The overall effect is that it has aroused deep suspicion about PFI and the suggestion that the private sector is making profit out of peoples illness. In light of the refinancing move by Octagon it is difficult to refute this impression. PFI is presented as a public private partnership with an open and equitable approach to risk sharing. This argument was squarely demolished by the refinancing strategy where the private operators showed little respect for sharing benefit and only did so when pressed by government. Even then the negotiation proved adversarial and detrimental to NNUH. This has had a corrosive impact on the public view of PFI.

13.7. Competence and capacity to implement PFI projects

For most hospital managers (and their Boards) development of a new hospital is usually a once a career event – whereas for the private sector it is their raison d’être. There appears to have been significant asymmetry between the competence of NNUH and the PFI sector evidenced by ineffective planning and weak negotiation on the part of NNUH. To compensate NNUH incurred very significant consultancy and legal costs to help steer it through the complex PFI process. The public accounts committee observed in 2006 "It is hard to escape the conclusion that the public sector staff managing the project were not up to the rough and tumble of negotiating refinancing proposals with the private sector."

14. Conclusion

The primary benefit of adopting a PFI solution for the NNUH appears to be the earlier provision of the new hospital than might have been the case had it been reliant on public procurement. This is offset by the price paid – an annual ‘usage charge’ over double the former (and projected) cost of a public procurement model and fixed for the lifetime of the contract (35 years). Furthermore, the limited degree of design and construction innovation is likely to inhibit the hospital in adapting to a rapidly changing outlook – the impact of new technologies and models of care, changes in the nature of patient needs and strategies (local and national) to reform healthcare delivery. The fixed nature of the contract, with punitive charges for change or buyout, may leave the hospital exposed operationally and financially. The UK Treasury has recognized some of these types of problems (on a wider scale) by launching a new “PFI 2’ model. This is described in the generic PFI study. However there
is notable silence from the Department of Health as regards its roll out within the NHS. For the moment PFI has been all but abandoned in the English health sector for new hospital provision. Two observations are noteworthy. The Department of Health recently approved the use of bond/pension funds financing (as opposed to PFI) for a new hospital development in the North East of England, however the hospital trust has so far been unable to obtain funding through this source. The English NHS is in any event facing a major reform in the way services are commissioned. It will place emphasis on introducing greater patient choice (more competition) and shifting more care from acute hospitals into more local settings. This will usher in a period of significant change, uncertainty and risk. In these circumstances the rigidity of the PFI seems singularly unsuited to supporting the changes in prospect. It seems that the principal benefit of PFI, accelerated provision of new hospitals, will be far outweighed by the future need for adaptability, flexibility and an investment strategy/model that more closely links capital investment to measurable clinical performance, health impact and economic sustainability.

(1) Octagon Healthcare; the following is the composition of Octagon Healthcare (the special purpose vehicle, SPV) created to bid for and manage the NNUH project.

<table>
<thead>
<tr>
<th>Contractor / Consortium / Partnership / Joint Venture</th>
<th>Octagon Healthcare (Norwich) Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholders / Members / Partners</td>
<td>Laing 20%</td>
</tr>
<tr>
<td></td>
<td>From: 6 January 1998 To: Present</td>
</tr>
<tr>
<td></td>
<td>Serco 5%</td>
</tr>
<tr>
<td></td>
<td>From: 6 January 1998 To: Present</td>
</tr>
<tr>
<td></td>
<td>Secondary Market Infrastructure Fund</td>
</tr>
<tr>
<td></td>
<td>From: 1 January 1998 To: Present</td>
</tr>
<tr>
<td></td>
<td>Innisfree 25%</td>
</tr>
<tr>
<td></td>
<td>From: 1 January 1998 To: Present</td>
</tr>
</tbody>
</table>

Private Sector Contractor(s)

- HBO & Company (UK) Ltd - ICT Contractor
- Laing Construction - Design & Build
- Octagon Healthcare Ltd./Serco Systems Limited - Soft FM – Catering, cleaning etc
- Octagon Healthcare Ltd./Serco Systems Limited - Hard FM – Building maintenance
- Synergy - Other Key Contractor
- Anshen Dyer - Architect

Private Sector Advisor(s)

- Heath Lambert - Insurance
- Denton Wilde Sapte - Legal
- Tarkett Sommer Ltd - Other
15. References and Sources

15.1. Source of information and data in compiling this study

The study is evidence-based drawing on:

- Published accounts and board reports from NNUH;
- Authoritative parliamentary review bodies and select committees;
- National Audit office;
- NHS policy statements and guidance on PFI relevant to NNUH;
- Reference to authorized press statements and evidence to review bodies and select committees by NNUH staff and others;
- Information and data on clinical data from accredited national agencies (Dr Foster Intelligence and HES);
- The Care Quality Commission;
- Opinion papers, occasional articles and media reports have been ignored.

Note: NNUH achieved foundation trust status in 2008. It is granted to those NHS Trusts that demonstrate sustained achievement of a basket of performance objectives set by the Department of Health. NHS policy proposes that all hospitals will achieve Foundation status by 2014. In practice foundation trust hospitals become semi-autonomous from the NHS. It exempts NNUH from publishing a wide range of data and information about its activities.

15.2. Principal References

- Annual Accounts (various financial years); Annual Accounts of the Norfolk and Norwich University Hospital NHS Trust;
- Committee of Public Accounts, June 2008; “HM Treasury; Making changes in operational PFI projects”, House of Commons, HC 332;
- Department of Health, February 2004; “General PFI Question and Answer Briefing”, Department of Health website;
- Edwards P et al 2004; Evaluating the operation of PFI in roads and hospitals, Pam Edwards, Jean Shaoul, Anne Stafford and Lorna Arblaster, Research Report no.84, Association of Chartered Accountants (ACCA) (available on the ACCA website);
• National Audit Office June 2005; “The Refinancing of the Norfolk and Norwich PFI Hospital; how the deal can be viewed in the light of the refinancing”, London;
• NNHCT 1994; Outline Business Case for Acute Services in Norfolk and Norwich. 1 October (in file C.362.11 at Norwich public library);
• NNHCT 1994/95; Annual Report of the Norfolk and Norwich Health Care NHS Trust;
• NNHCT 1996; Full Business Case for Acute Services in Norfolk and Norwich, January (in file C.362.11 at Norwich public library);
• NNUHT September 2004; Private Finance Initiative – Norfolk and Norwich University Hospital;
• NNUHT “Quality Account” 2011/12;
• Office of National Statistics, April 2008; Expenditure on Health Care in the UK, (website of the ONS accessed in January 2009);
• PAC, 2006; The Refinancing of the Norfolk and Norwich PFI Hospital, Committee of Public Accounts, House of Commons, HC 694, May;
• PAC, September 2008; HM Treasury: Making changes in operational PFI projects, Committee of Public Accounts, House of Commons, HC332;
• Pollock A et al, 2007; “An Examination of the UK Treasury’s Evidence Base for Cost and Time Overrun Data in UK Value-for-Money Policy and Appraisal”, Public Money and Management, April 2007 (Allyson Pollock, David Price and Stewart Player);
• Secretary of State for Health, 2002; Delivering the NHS Plan, Cm 5503;
• UK Parliament, July 1999; “Health – Minutes of Evidence” ... taken before the Health Committee of the House of Commons on July 19, 1999;

15.3. Sources of data quoted

• Dr Foster Intelligence; the Dr Foster Intelligence Unit is part of Imperial College, London, it has developed methodologies that “enable fast, accurate identification of potential problems in clinical performance, as well as areas of high achievement.” Dr Foster works to a code of conduct that prohibits political bias and requires it to act in the public interest. It is part owned by the NHS and is regarded by the government as the authoritative source of data and advice on hospital clinical performance. It is part funded by the NHS;
• Hospital Episode Statistics (HES); is a data warehouse containing details of all admissions to NHS hospitals in England. HES is the primary data source for a wide range of healthcare analysis for the NHS, and UK Government. It receives part funding from the NHS;
• Care Quality Commission (CQC); is the independent regulator of all health and social care services in England. Its role is to ensure that
care provided by hospitals and elsewhere meets national standards of quality and safety. It is funded through a combination of registration fee income and government grant-in-aid. It began operating on 1 April 2009 and replaced three earlier commissions: the Healthcare Commission, the Commission for Social Care Inspection and the Mental Health Act Commission.
Project Case Study The UK NHS Independent Treatment Centre Strategy Shepton Mallet ISTC (SMTC) case study

1. Introduction

UK Specialist Hospitals (UKSH) is an independent sector healthcare company. It was established in 2004 in response to the English NHS Department of Health (DoH) decision to create a network of Independent Sector Treatment Centres (ISTCs) throughout England. The DoH first wave initiative (2004/5) was primarily directed towards reducing waiting lists. The second wave (2009) was specifically aimed at introducing competition and expanding patients’ choice of healthcare provider; “making services more accessible.” UKSH successfully bid for ISTC concessions in the south west of England, first and second wave. It comprises a network of small centres, initially in Shepton Mallet, Somerset as a first wave ISTC, and extended its scope by opening further centres as the DoH rolled out the second wave of its programme. Most UKSH centres are small, around 30 beds, are predominately day case focused and are located in small market towns (or the perimeters of cities) somewhat distant from the nearest acute general hospital. In aggregate the company treats around 95,000 patients per year. The following comprise the UKSH network:

- Shepton Mallet NHS Treatment Centre, Shepton Mallet (opened July 2005);
- Emersons Green NHS Treatment Centre, Emersons Green (opened November 2009);
- Devizes NHS Treatment Centre, Devizes (opened November 2009);
- Cirencester NHS Treatment Centre, Cirencester (opened November 2009);
- Peninsula NHS Treatment Centre, Plymouth (operated by UKSH since August 2010).

Peninsula ISTC was purchased by UKSH as a going concern, having initially set up as an independent company in 2004. At the time of developing this case study it was announced that UKSH had been acquired by Care UK. Care UK was initially established in1982 to operate nursing homes but has since diversified in the private health sector, including a move into the ISTC market place. It has a track record of expansion through acquisition and this may signal a more general trend towards consolidation of the ISTC network.

This case study examines the Shepton Mallet Independent Treatment Centre (SMTC) as typical of ISTCs developed in response to the initiative introduced by the DoH.

The case study - Shepton Mallet ISTC

The treatment centre has:

- 34 beds;
- 4 operating theatres;
- a day surgery facility;
- a comprehensive diagnostic department;
- a physiotherapy department.

SMTC employs 130 staff.

It is located in Shepton Mallet a small town in a semi-rural area of the county of Somerset in the South West of England. It is equidistant from general acute
hospitals in the town of Yeovil and the cities of Bath and Bristol all about 20 miles away.

The centre opened in July 2005 and is a fully equipped stand-alone surgical hospital providing for up to 12,000 procedures per annum almost exclusively for the NHS. It comprises specialist orthopaedics (mainly joint replacement), ophthalmology, general surgery and endoscopy as well as multi-modality imaging and diagnostics, gynaecology, urology, oral surgery and ears, nose and throat procedures.

Although predominately focused on day case treatment the centre has provision for in-patient overnight stay in a range of two and three bed en-suite rooms. The centre is not equipped for emergencies and only routine (risk assessed) patients are accommodated overnight.

The building cost £12m, the low cost reflected the modular (off site) construction system adopted. Site erection and commissioning of the 4,100sqm centre took less than 10 months. This illustrates the ‘disposable building’ concept common across ISTCs adopted to take account of the standard short-term (5 years) contract and risk of non-renewal at the end of the contract.

2. Design of the PPP and award procedure

The first wave of ISTCs (agreed by the DoH in 2004/5) was targeted at reducing waiting times for elective treatment. The basis of the SMTC bid was to respond to the DoH tender to purchase additional diagnostic and treatment capacity to deal with rising waiting times, across a wide range of conditions, in east Somerset. The DoH was advised on the volume and mix of additional capacity needed (over and above NHS provision) by the Somerset Strategic Health Authority, the NHS strategic planning agency responsible for that area.

The tendering process and contract award was managed centrally by the DoH. No specific details of the negotiation process or contract structure and value are available, expressly described by both the DoH and SMTC as being commercial in confidence (CinC). However, bids were assessed against an assessment of the best balance between cost, quality and capacity.

3. Sources of financing

The only statement made by the SMTC is that the project capital and start up cost was financed by an international consortium. The company would have had little difficulty in raising funds given the 5 year guaranteed block contract agreed with the DoH.

4. Total declared investment costs

The only information available as regards investment costs incurred by the ISTC is the building cost of £12 million. All other information has been withheld as being CinC.

5. Main lines of contractual framework

The (first wave) contract for SMTC was agreed with the DoH centrally. The standard contract period was 5 years. The contract stipulated that services provided by SMTC must be for the exclusive use of NHS patients (ISTCs are not categorized as private hospitals but a class of independent hospitals / centres in their own right). At the end of the initial contract period an open competitive tendering process was used to purchase capacity required for a further 5 year period if required.

The DoH further stipulated that staffing of ISTCs should not be at the expense of local NHS hospitals or GP services, staff should not be ‘poached’ from the public sector. It must create “genuine additional capacity.” Therefore shared medical sessions, as is often the case between the NHS hospitals and private
hospitals, was ruled out.

All first wave ISTCs (including SMTC) were given a 'take or pay' guarantee, stipulating that Primary Care Trusts (the local DoH commissioning agencies) would pay for 100 per cent of the contract value, regardless of whether activity reached the contracted level or not. The contract allowed for all local GPs to refer patients for treatment, up to the total volume level contracted for. GPs have a requirement (from 2008) to offer patients a choice of provider for elective referrals. Patients are free to choose an ISTC as their preferred treatment provider.

The initial contract volume for the SMTC was around 12,000 episodes (diagnosis and treatment) per annum. No official figures have been released. Hospital Episode Statistics (HES) data (1) indicates that the centre delivered 100% of its block contract provision in 2009, in other words full take up by referring GPs. This compares with a national average of around 85% take up for similar first wave centres. (2).

Through extrapolation of general HES data it is likely that the additional capacity contracted for through SMTC represented between 1% and 7% (depending on case type) of local public NHS hospital elective treatment volumes.

The SMTC initial contract expired in 2010. The retendering process was handled by the local Somerset Strategic Health Authority acting on behalf of the DoH. SMTC was successful in obtaining renewal of its contract for a further 5 years, at similar roll forward guideline levels. No financial details are published or available. However, the renewal contract removes the guaranteed volume payment but instead provides indicative referral parameters and payments are made on the basis of actual services delivered and according to case mix type. Details of this contract agreement are not available. In compensation for loss of the block guarantee the new contract allows SMTC freedom to treat private patients but on the basis that this should not prejudice its NHS contractual commitments.

Risk transfer principles differ as between the initial contract and the renewal contract as follows:

**Initial contract** – risk is balanced out as follows:

- SMTC carries the risk of:
  - Service delivery;
  - Ensuring availability of the full contracted level (volume / case mix) of services specified within the block contract;
  - Initial capital financing and building costs.

- The DoH carries the risk of:
  - Underutilisation of the block contract agreed;
  - Specifying adequate quality standards.

**Renewal Contract**

- SMTC carries the risk of:
  - Service delivery;
  - Demand variability;
  - Providing private healthcare without detriment to NHS services (if it wishes to do so).

- The DoH carries the risk of:
  - Ensuring the contract parameters offer patient choice in that
locality (should they opt for local ISTC treatment). In real terms this is a strategic policy risk;

- Quality specification as above.

As part of the bidding process the ISTC is required to produce evidence of clinical governance and quality assurance systems and standards. Furthermore, it is required to:

- Undergo periodic inspection by the Care Quality Commission, CQC (3);
- Submit to independent review of specified clinical outcomes by Dr. Foster Intelligence (4);
- Report (to the DoH) on a range of NHS ‘key performance indicators’ covering areas such as clinical measures, complaints and patient satisfaction. The data submitted to the DoH are not made public, as it is argued (by the DoH) that this information is commercially sensitive;
- Produce and publish an annual “Quality Account” that details its further ‘public’ quality objectives (as applying to all English NHS public hospitals and ISTCs) and voluntary objectives (UKSH corporate policy). These details are available on the SMTC web site. It is commendably open and transparent in this aspect of its agreement and performance.

6. Payment mechanisms

The ISTC received a monthly payment proportionate to the total 5 year block cost / volume contract agreed for the initial contract and thereafter on an episode (case mix) based tariff for services delivered within the renewal contract. No specific details of payment tariffs (case mix agreements incorporated within the block volume cap or renewal contract) are available or published. However independent research (2) suggests that case mix rates (embedded in block contracts) were 11.2% higher for initial first wave ISTC contracts than equivalent case mix payments made to NHS hospitals. Contracts include an inflation escalator.

The differential is smaller for second wave (2009) ISTCs including a sliding scale volume payment in place of the block ‘take or pay’ guarantees for the first wave.

7. Cost per patient

This is not relevant at present, see above, SMTC is not required to publish cost data and is in any event paid according to the initial case mix weighted block contract - and subsequently a case mix tariff as part of its successful contract renewal bid. However, the new NHS reforms were introduced on the 1st April 2013. All ISTC renewals after that date will also be open to all service providers and no preferential tariff concessions will be given to ISTCs. It will be 2014 and beyond that first indications will emerge of the impact wider competition will have on the cost / price.

8. Average hospital stay

SMTC provides predominately diagnostic procedures and day case treatments. It provides some in-patient episodes. The majority of its in-patients stays are for hip replacements for which the average LOS is 3.3 days compared with a public hospital average of 5.6 days at 2010/11. However figures must be viewed against public hospitals usually having a more complex case mix (higher risk patients) for this type of procedure (see also later). A small number of other patients stay overnight for more general surgery, no comparative figures are available.
9. **Average surgery delay**

The average wait for indicative case types at the SMTC is shown in table 1.

<table>
<thead>
<tr>
<th>Case type</th>
<th>Pre-assessment</th>
<th>Admission for treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip replacement</td>
<td>2 weeks</td>
<td>7 weeks</td>
</tr>
<tr>
<td>Knee arthroplasty</td>
<td>2 weeks</td>
<td>4 weeks</td>
</tr>
<tr>
<td>Cholystectomies</td>
<td>1 week</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Cataract</td>
<td>2 weeks</td>
<td>4 weeks</td>
</tr>
<tr>
<td>Colonoscopy</td>
<td>Less than a week</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

Table 1 Waiting times for pre-assessment and treatment at SMTC, source UKSH.

Waiting times for similar treatments in NHS hospitals in the area range between 10 and 20 weeks (with a small number beyond 30 weeks) across the case types listed. Source NHS hospitals web sites. SMTC updates its web site weekly on current waiting times – few NHS hospitals publish this information in this way.

**Other examples of clinical performance – SMTC related.**

The centre is continuously revising its treatment protocols to meet national standards, for instance those set by the British Association for Day Surgery (BADS). In the case of laparoscopic cholecystectomy (keyhole gall bladder removal) it has moved from almost wholly overnight in-patient stay to 83% day cases during 2011/12, this exceeds the BADS target of 75% for NHS public hospitals. Source UKSH Quality Account.

The revision rate for hip replacements is 1.1% - exactly in line with public hospital averages. Source Dr. Foster intelligence.

The Department of Health produces a ‘standardised’ rate of readmissions which is designed to allow comparison of the performance of organisations that provide diverse types of care. In 2009–10, the standardised rate for SMTC was 7.84% compared with the national standardised rate of 11.15% for NHS public hospitals. Source DoH.

The centre was zero rated (no cases of infection) in 2011/12 for hospital-acquired MRSA and C.difficile, source Dr Foster Intelligence.

10. **Relevant generic study on clinical performance**

A comparative randomised study of the outcomes of patients undergoing hip or knee replacement, hernia repair and surgery for varicose veins, as between 25 ISTCs and 72 NHS Hospitals (5) concluded that: "patients undergoing surgery in ISTCs were slightly healthier and had less severe conditions than those undergoing surgery in NHS hospitals. Some outcomes were marginally better in ISTCs (joint replacements), but differences were small compared with the impact ISTCs could have on the provision of elective services.” In other words the fears that many professionals and the public had about the risks of surgery remote from major hospitals was unfounded. Clinical quality standards and outcomes are broadly similar to NHS hospitals.
11. Hospital/Staff satisfaction

The centre is subject to mandatory independent inspection by the Care Quality Commission. It has a good track record of meeting inspection standards. The most recent report (2013) confirms that SMTC met all CQC standards across a range of measures including:

- Patient consent to treatment;
- Care and welfare of patients;
- Staffing ratios and attitudes;
- Clinical governance;
- Managing complaints.

SMTC is required by the DoH to self-survey patients using the ‘NHS choices’ ratings system, and publish the results. This requirement also applies to all NHS hospitals. The satisfaction level quoted for SMTC (and observed on the web site) is very high e.g. “over 99% of patients would recommend the SMTC to a friend.” The centre is ranked 5 star on the NHS choices guide. The three nearest NHS hospitals achieve between 3.5 and 4 stars using the same rating system. Source NHS choices web site.

12. Relevant findings from generic studies

A study of patient choice at point of GP referral (6) found that:

- Many patients at ISTCs seemed unaware that they were run privately;
- Cleanliness, quality of care and the standard of facilities were the three most important factors that patients said had influenced their choice of location for treatment;
- Patients offered a choice were more likely to travel to a non-local hospital / ISTC where information was available about comparative standards.

A further study (7) concluded that:

- The closer the patient lived to an ISTC site, the more likely they were to receive care at the ISTC;
- ISTCs treat a significant number of patients who have travelled more than 15 km further than their nearest NHS hospital;
- From 2006* patients were referred for elective treatment to a wider variety of providers, and a substantial proportion of this change was attributable to increased use of ISTCs. This seems to have coincided with a DoH drive to increase provider competition within the NHS.

Finally a very recent study (8) that examined whether ownership of the hospital (ISTC) affects the patient experience concluded that:

- The experience reported by patients in public and private hospitals (ISTCs) is different i.e. most dimensions of quality are delivered differently by the two types of facilities with each sector offering greater quality in certain specialties or to certain groups of patients;
- Differences in mean reported quality levels between the public and private hospitals are entirely attributable to patient characteristics rather than to hospital ownership.

13. Average death rate

The hospital does not rank on the national mortality register – it has had no deaths within 7 days of admission since opening in 2005. It is difficult to equate this with NHS hospitals due to differences in case mix and the emergency / elective balance of services provided.
14. Conclusions and lessons learned

When it was first introduced the NHS ISTC strategy was controversial and widely opposed by the medical profession, hospital managers and trade unions. However, almost all of the concerns and criticisms have been answered by ‘performance on the ground’. The main concern over the establishment of stand alone surgical centres without emergency facilities and often rather remote from NHS hospitals has proved unfounded, mortality rates are near zero and there is no measurable evidence of emergency transfers to NHS hospitals. So-called ‘lack of integration’ between the primary care sector and ISTCs has not proved an issue. Furthermore the authoritative study overseen by the Royal College of Surgeons has established beyond doubt that patient outcomes are almost identical to NHS hospitals and ISTCs provide a “safe environment.”

The impact on keeping waiting lists under control in the locality of ISTCs is also now universally accepted by ‘the professions’ and hospital managers. ISTCs seem here to stay. Over the five years to 2010/11 the number of ISTCs grew from 10 to 161. By the end of that period they were providing 3.5 per cent of all first outpatient appointments, totalling almost half a million attendances, and were providing 17 per cent of all hip replacements, 6 per cent of cholecystectomies and 17 per cent of elective unilateral inguinal repairs funded by the NHS. It seems reasonable to assume that in many areas well run ISTCs will continue to make inroads into the local market for healthcare provision.

However, the new NHS reform model (introduced on the 1st April 2013) establishes a more open and level playing field for market (patient choice led) competition between all service providers. It may be that some ISTCs will find the going tough and find contracts are not successfully won on retendering – or that the more entrepreneurial NHS hospitals will seek to take them over. Either way the last word is likely to go to the patient.

Patients are now substantially better informed about treatment options. The ‘web’ is having a transformative impact on availability of information and data about quality and outcomes of all service providers. For example, the NHS ‘Patient choices’ policy introduced by the DoH has proved effective in making comparable data more accessible, at least in lay terms. Evidence from SMTC and more general studies indicate that increasing numbers of patients no longer have inherent loyalty to local NHS hospitals and are now more influenced by quality, accessibility and responsiveness to meeting their personal needs – and ‘vote with their feet’. SMTC provides evidence that supports this general overview. It has also shown just how well it is tuned in to this change in patient culture.

14.1. Lessons learnt from the experience

- **Managing service pressure** - ISTCs can provide a viable way of managing hot spot pressures on diagnostic and elective services (waiting times, accessibility and equality of care) with relatively low entry and exit costs and risks;
- **Quality and Safety** - The strategy has exploded myths about the dangers of stand alone small surgical centres and the risk of worse outcomes than for larger acute hospitals – providing that service contracts build in relevant quality standards and that they are effectively and independently monitored;
- **Cost** – A great deal was made initially about preferential tariff rates, however this was regarded by the DoH as a necessary pump-priming exercise to attract new providers into the market place; as it said “a price worth paying to change the dynamics of service delivery.” ISTCs under the new NHS reforms introduced in April 2013 are now required
to compete on level terms for all future contracts;

- **Innovation** – the best of the ISTCs have proven just as good at innovation in clinical practice as the best of NHS hospitals, as demonstrated by SMTC. The smaller and more cohesive nature of ISTCs seems to foster faster track take up of new clinical technologies, new ways of working and more cost efficient operational management than many if not most NHS hospitals. They seem more adept at maximizing return on investment on capital and technology spending. The 'small is beautiful' philosophy may be a factor in the success of ISTCs;

- **Competition** – ISTCs have shown that the introduction of well-managed competition can have a beneficial impact on quality, efficiency, responsiveness and environmental standards in the hospital sector. There is anecdotal evidence of NHS providers achieving sudden falls in their waiting lists; of sudden increases in throughput; of sudden reconfigurations of service as they come to terms with meeting the competition from ISTCs. There is little doubt that ISTCs have had an important role in acclimatising the NHS to the new reform led future of greater competition in the healthcare sector;

- **Culture Change** – ISTCs have led by example in changing medical and nursing cultures, from an institution centred approach to care to a patient centred model of care;

- **Openness and Transparency** – The Doh took the decision not to publish any contract details for ISTCs claiming that it would prejudice commercial confidentiality and bias future tendering processes. This looks to have been a significant mistake as it fuelled criticisms of the so-called preferential deals agreed. This has distorted balanced judgement about the strategy in particular review by the parliamentary committees where there was significant hostility to moving elements of healthcare into a market environment. However this will now change as the new reforms are rolled out which provide for a more transparent competitive process.

15. **Reference sources**

1. Hospital Episode Statistics (HES); is a data warehouse containing details of all admissions to NHS hospitals in England. HES is the primary data source for a wide range of healthcare analysis for the NHS, and UK Government. It receives part funding from the NHS;


3. Care Quality Commission (CQC); is the independent regulator of all health and social care services in England. Its role is to ensure that care provided by hospitals and elsewhere meets national standards of quality and safety;

4. Dr. Foster Intelligence; the Dr Foster Intelligence Unit is part of Imperial College, London, it has developed methodologies that “enable fast, accurate identification of potential problems in clinical performance, as well as areas of high achievement.” It is part owned by the NHS and is regarded by the government as the authoritative source of data and advice on hospital clinical performance. It is part owned and funded by the NHS;

6. “Choice at the point of referral,” November 2009 Kings Fund, UK;
7. “Choosing the place of care, the effect of patient choice on treatment location.” November 2012, Institute of fiscal studies in association with the Nuffield Trust;

- UK Specialist Hospitals web site and press releases;
- Shepton Mallet Treatment Centre web site and press releases;
- “The value for money of ISTCs,” August 2009, Civitas;
- NHS, Department of Health web site.
Case Study: Portugal

**Public – Private Partnerships in the Portuguese healthcare**

1. PPP Law/Legal Framework/PPP Policy in Health

The Portuguese national health care system is based on universal coverage, and “tendentially free” access to health care provided by the SNS, the National Health System. Patients are charged nominal fees (taxas moderadoras) to moderate demand as well certain other co-payments for items such as medication, though many patients are exempted. The health system is centralized with the SNS functioning both as the single-payer (tax-based) and as the primary provider for citizens and residents, while co-existing with certain special schemes (such as ADSE for “funcionários públicos”) and with supplementary health insurance and health care providers from the private and social sectors.

As of the year 2000, Portugal had a considerable investment backlog in the health sector, in order to expand health coverage which was below OECD levels, to serve new population areas and to replace certain aging hospitals operating in historic but inefficient buildings.

Portugal also had a long tradition of concessions in the transport and water sectors. The primary rationale for contracting PPP hospitals was to allow the Portuguese government to deliver high quality facilities and services faster and more efficiently improving access, quality, and clinical and technological innovation, within the appropriate regulatory and budget framework (PPP Journal 2010). In other words, to achieve efficiency gains in the health care itself without any immediate budget impact.

The health PPP law approved in August 2002 (Decree-Law no. 185/2002), and the corresponding Regulamentary Decree no.10/2003, established governing principles for eventual PPPs at all levels of care and provided for the reinforcement of oversight of health management and collaboration contracts up to 30 years. The implementation of the new hospital PPP program coincided with also with a new general PPP Law, Decree-Law no. 86/2003, which stipulated the use of a public sector comparator (PSC) and a detailed business case, under the coordination of Parpública, which functioned as a Central PPP unit. An ambitious PPP hospitals programme was announced in 2002 calling for the building of five new and replacement hospitals under public-private partnership regime until 2008 and the project pipeline was soon expanded to 10 hospitals with a second wave. This was simultaneous with measures to gradually transform the existing public SNS hospitals into state-owned but commercially-run corporations (corporatization), and to formalize contracting for services within the SNS, shifting over time from the funding of “inputs” (facilities and staff) to the funding of “outputs” (medical procedures).

The new PPP hospitals are built under quasi-exclusive contract to the SNS as payer (through the regional health administrations ARS). Not only did the changes to the law allow for the ambitious programme of hospital
infrastructure renovation and clinical management elevation by making use of available private resources for investment at a time of public budgetary restrictions, but it also introduced benchmarking between the new privately managed public hospitals and the existing SNS.

In order to achieve the desired SNS cost reductions, the PPP Law also provided for both the new and replacement hospitals to take over SNS staff who could retain their rights as “funcionários publicos” or agree sign individual work contracts. (Monteiro 2010) The Portuguese Ministry of Health saw PPP as an alternative way of financing and delivering public services, faster and at a lower cost than otherwise would happen, yielding expected improvements to access, quality, and clinical and technological innovation, within an appropriate regulatory framework. (PPP Journal 2010).

The 10-hospital program was expected to replace over 10% of the existing acute hospital beds. (38.239 in 2004), as some of the older hospitals were to be closed. The number of acute care hospital beds in Portugal was 2.8 per 1000 population in 2010, below the OECD average of 3.4. The number of acute hospital beds per capita in Portugal has fallen gradually over time, coinciding with a reduction of average length of stays in hospitals and an increase in the number of day surgery (OECD 2012, ERS 2011)

According to the hospital master plan proposed recently, in there 2012 there were 95 public hospitals in operation in Portugal plus 18 belonging to the social sector (IPSS), with only new PPP hospital already opened. (ERS Carta Hospitalar 2012).

2. Health PPP unit - Parcerias da Saúde –

An ad hoc health PPP Agency, Parcerias da Saúde had been established by the MoH in November 2001 to develop and implement the health PPP strategy. It managed the hospital PPP transactions in close collaboration with Parpública, the former Central PPP unit of the MoF. MoH planning units provided much of the technical support, especially in costing the Public Sector Comparator. External consultants were contracted for the financial and legal advisory as well as for procurement management. Joint MoH/MoF committees prepared the joint decisions by the two ministers regarding project selection, the procurement model, PSC values, as well as “gateway” decisions (launching, bid evaluation, adjudication). Each transaction was guided by a Steering Committee and a Tender Board appointed by the Minister of Finance and the Minister of Health, and was accompanied by senior specialists from the future contract managing units, the ARS.

Parcerias da Saúde was disbanded at the end of 2010 and its functions incorporated into ACSS, the central SNS management unit.

3. First PPP Contract: (year, name)

The first relevant “PPP hospital” experience was with the 700-bed Amadora-Sintra which was built and financed originally by the SNS and was managed by a private sector operator from 1995 to 2008.

The first of four new “integrated hospital contracts”, including the infrastructure and the clinical services, was signed in February 2008 for the Cascais hospital (262 beds) and opened in February 2010. It was followed by the contract for the Braga university hospital in 2009 (705 beds), Loures
hospital in 2009 (272 beds) and Vila Franca de Xira in 2010 (280 beds). The first three hospitals are already operating, VFX is under construction and is expected to open in 2013, though the private operator has been operating the existing hospital since 2010. There are two smaller health-related PPPs, a rehabilitation center in Algarve and Saúde 24, a health call center, both signed in 2006.

Portugal also has two Autonomous Regions, Azores and Madeira, which are responsible for health care at the regional level, and a new (infrastructure only) PPP hospital was contracted separately by the Azores Regional Government in 2009 and opened in March 2012.

4. Health PPP Model:

The breakthrough for PPPs in health sector was the twin-SPV (infrastructure plus clinical services) model chosen originally in 2002, following two years of preparation and consultation by the Ministry of Health working group, and building on the country’s general PPP experience as well as on some experience with health contracting-out and hospital management contracts, which were allowed under the Basic Health Law no. 48/1990.

An important distinction in this Portuguese “integrated hospital with clinical services model” is the awarding of two contracts, one to the “InfraCo” for construction and maintenance of the hospital infrastructure and another to the “CliniCo” for the clinical services. These two project companies have a contract with each other and each has its own financing contract, though usually with the same creditor group. The financing contract for the InfraCo is a traditional project financing contract, with the concessionaire and its creditors taking availability risk. The financing contract for the CliniCo, which has clinical risk, benefits from credit enhancement in the form of a counter-guarantee for clinical risk from the shareholding sponsors.

The twin-SPV (Special Purpose Vehicles) model, each with its own concession contract and payment mechanisms, made it possible to harmonize the different objectives and requirements of the public and private partners with respect to the hospital facilities and the clinical services, to integrate sponsors with different competencies and to structure risks in such a way as to accommodate the risk appetite of different investors and creditors. It was clear from the extensive consultations undertaken by the MoH working group that even international banks operating in Portugal favoured the British facilities-only PFI hospital model and were unwilling to accept clinical risk. Thus the inclusion of clinical services in Portugal contrasted with the prevailing infrastructure-only PFI model and posed key challenges and tensions with lenders and investors. (Project Finance International 2010). The inclusion of clinical services in the PPP project was a relative novelty in the international arena, with the Alzira hospital in Valencia, Spain being the most comparable at the time. (Monteiro 2010).

In this bundled “Cascais integrated model”, with the private partner is responsible for providing in-patient and ambulatory health care for the population of a given zone was chosen because it promised the highest operating efficiency gains and easiest interfaces within the hospital itself. (Monteiro 2010), though it retains “interfaces” between the private hospital operator and the rest of the SNS, as the patient moves or is referred along routine “patient circuits” or care pathways.
In 2005, while the integrated hospitals were in procurement, after a period of strategic evaluation and reformulation of the PPP model, the new (Socialist) Government decided to limit the integrated hospital program to the four (first wave) hospitals under procurement, and to launch a second wave of contracts following the “PFI” infrastructure-only model. This policy decision to reduce the scope of the hospital PPPs also reflected the continuing resistance from international creditors, including the EIB which participated only in the Braga transaction, but taking no project risk. Even local banks required full sponsor support for clinical risks.

5. Contract duration

The “integrated PPP hospital” consists of a contract for the design build, finance, operate and transfer the infrastructure over 30 years and a shorter contract to deliver clinical services for 10 years, in order to provide for flexibility within the context of evolving SNS service needs, renewable up to 30 years. Activities such as cleaning, laundry, catering, parking are usually bundled with the clinical activities management.

6. Payment System

The clinical services are remunerated on a “fee-for-service” DRG basis, per medical procedure, with annual volume quotas, an activity-based payment which was innovative at the time of launch of the program and is similar to those since implemented in for the other SNS corporatized hospitals EPE. Patients have limited choice and since not all hospitals offer all services, there are explicit referral guidelines depending on the care needed. The payment mechanism is based on annual production quotas set each November for the following year, based on the average volume of health services used by the relevant population over the previous 5 years. Payment is made monthly according to the predetermined fee set at bid and indexed to inflation adjusted by the CMI Case Mix Index (for example, €2 300 in Loures), with top up payments at year end.

Payments for patients outside of the catchment area are made and received at 100% of the respective DRG, up to 10% of the contracted production. The PPP hospitals are also allowed to serve non-SNS patients up to a limit. Shortfalls in production are subject to deductions and unjustified referrals (transferencias indevidas) are subject to fines. The InfraCo contract is paid according to availability for facilities and equipment with deductions for performance shortfalls.

7. Share of PPP contracts in total hospital investment plans.

The only other hospital built and operated by the SNS under traditional procurement in the relevant period was the Coimbra Paediatric hospital (163 beds) which opened in 2011 with a 22% cost overrun and a 100% slippage in construction time, due to problems with the hilly terrain donated by the municipality. This represents less than one tenth of the beds in the four (integrated) PPP hospitals contracted in the same period, so, in practice PPP became the only option for financing hospital investments.
8. Value for money consideration on a macro level

At the time of tender, bidders expected to generate more value for money savings in the clinical services side, rather than in the infrastructure component which is remunerated by rental payments. In the integrated hospitals of the first wave, the “Value for Money differential” between the bids and the PSC comparator derived primarily from the savings expected in the clinical operations. Considering that staff costs amount to between 50-70% of the clinical operating costs, the operator’s ability to achieve profitability depends on its ability to contain or rather reduce personnel costs, with more efficient work rules, such as exclusivity, etc. In some cases the bids for the InfraCo were in excess of the PSC (negative Value for Money). In addition, with Value for Money in the infrastructure component either low or non-existent, it the PPP option can be attractive in future infrastructure-only hospitals of such as Lisboa Oriental and Algarve, whose bids come in over PSC and whose procurement processes were suspended under the Assistance and Adjustment Programme in 2011 (MoU2010).

All the bids were lower than might have been expected, especially in the case of the Braga university hospital, which had a global VfM of 33% when compared to the official PSC.

The selection of hospital projects for inclusion in the project pipeline was not necessarily justified by technical studies (TdC 2009), but more on policy decisions The overall sustainability of the program also depended on the ability to close the older hospitals made redundant, a challenge in the face of resistance from stakeholders, including both users and staff. This is an issue in the Lisbon metropolitan region, with three new hospitals in Cascais, Loures and Vila Franca de Xira, there is now a pressing need to rationalize the existing hospital capacity (GTR Hospitalar Nov 2011).

The NPV Net Present Value of the Government liabilities with the health PPP as of January 2012 was €2.8 billion, of which about 76% related to the clinical services until 2018-2022 and 22% related to infrastructure payments which go on a further 20 years. The Cascais and Braga CliniCo operators reported losses in the early years due to essentially to higher than expected costs, resulting in negative net worth at the end of 2011, which may require recapitalization. Shareholder IRR may not meet the initial expectations of around 9-10%. The other two CliniCos expected shareholder IRRs ranging from 12-15%. The InfraCos expected shareholder IRRs ranging from 9-11%,
which is considered high for projects involving only construction, financing and facilities maintenance (E&Y 2012).

In 2011, with all contracts signed but the new Loures hospital not yet operating, payments by the Government reached €243 million, 7% above plan, mostly due to agreed increases in clinical production, and this is expected to peak at €391 million in 2014. (DGTF 2012).

9. Results of the audit by national auditing chambers

In its audit report no. 15/2009, the Portuguese Court of Auditors recalled that no hospital PPP contract had been signed seven years after the Parcerias unit had been created and five years after the launch of the first tender (TdC, April 2009), due in part to the implementation model considered atypical in international terms. The delays were mostly on the public sector side, with an average of 39 months from launch of the tender to signing, though much shorter for the 4th contract. Internal audits by the Finance and Health Inspectorates in 2009 also highlighted “lack of a proper internalization of skills” (IGF 2010). These shortcomings have been addressed now with the staffing up of both the PPP transaction team in the ACSS central health system administration and the PPP contract management units in the regional ARS. A new TdC audit is underway but has not been published.

The Ministry of Finance (DGTF) has published more details regarding the health PPP, including the contracts, risk analyses and financial flows.

10. Risk transfer models/results

The primary aim of PPPs in the Portuguese health sector was to enhance efficiency in managing the design and construction risks, risks of delays, financial risks, risks of demand, of operation and of additional costs, which are either transferred or shared, generates savings. (Jorge 2008).

Although some clinical risks, such as epidemics, were considered force majeure and remained with the public partner, the integrated hospital model was designed to transfer responsibility for day-to-day health services delivery to the private partner, including the management of medical staff.

However, clinical risk was a major issue for the bank creditors, and financing banks, such as the EIB, were generally not willing to accept it. Banks also had limitations on the amount of counter guarantees they would accept from the sponsors. As a result, the limited clinical risk underwriting capacity was exhausted in the first four contracts as early as 2005, making it nearly impossible to finance additional integrated hospital projects. In the case of Braga, extensive negotiation, due diligence and legal structuring was required in order to make sponsors, the MoH and banks comfortable with risk allocation. This “delayed the ClinicCo hospital concessions in Portugal and ultimately contributed to the template’s demise.” (Project Finance Magazine February 2010).

In addition, some locals banks were involved as both as creditors and sponsors doubling up on risk. The state-owned bank CGD was required to sell its hospital operations HPP Saúde in late 2012, which had reported losses earlier “particularly deriving from recognition of impairment on Cascais hospital’s PPP”.

Health and Economics Analysis for an Evaluation of the Public Private Partnerships in Health Care Delivery across EU
All the four integrated hospital deals contracted thus far promised good Value for Money with the NPV of public sector payments falling between 67% and 92% of the respective Public Sector Comparator, upon tendering, and thus these transactions were considered a success in terms of price competition (Barros et al 2010). In retrospect, some of the bidding may be seen as aggressive and overly optimistic especially in the clinical component which was financed on the basis of corporate guarantees.

In disaggregated terms, the infrastructure cost component where the banks took project risk was price less aggressively and most of the Value for Money savings were expected in the clinical component. (Gouveia 2012). Thus in the infrastructure-only projects, where the financing costs will be more relevant, much lower VfM savings may be expected. In the case of the 705-bed Lisboa Oriental, the public comparator was actually revised upward by about 16%, from €377 million to €430 million, to accommodate a higher bid, mostly due to higher financing costs.

The clinical contracts identifies and mitigates certain demand risks. Serving population from outside the catchment area is capped at 10%, production shortfalls result in deductions payment and and undue transfers (adverse selection) are subject to fines (Carías 2012).

11. Room for innovative approaches:

The integrated PPP hospital model bundling infrastructure with clinical is still considered innovative and called for extensive learning by the sponsors and banks as well as the Ministry of Health. However, it never gained the full confidence of the creditors, much less in the current risk-averse environment. In addition, the transition from public to private management poses special challenges in managing SNS-legacy staff next to newly hired staff.

On the positive side, experience in Portugal, has demonstrated PPP effectiveness for the rapid development of infrastructure and for the improvement of service to end-users, but sustainability and efficiency matters are still being addressed, and currently being challenged by the financial crisis and by affordability concerns (Monteiro 2010).

Under the 2010 Memorandum of Understanding with the IMF, and given need to contain both direct and contingent Government debt such as PPP liabilities, Portugal may not contract new PPPs until completion of a full review of existing contracts, underway since 2012.

12. Management of the PPP contracts:

Managing the complex integrated hospital PPP contracts is an IT and labour intensive process. The PPP hospitals provide a monthly data feed with about 160 KPI’s (key performance indicators) which are reviewed by a team of senior hospital managers, who also visit the hospital regularly. The ARSLVT has a team of 10 senior health finance specialists to monitor the three PPP hospitals in the Lisbon area.

13. Experience positive/negative/Lessons learnt by project and program management phase:

There have been relatively few evaluations of PPP hospitals in Portugal since the first hospital opened in February 2010. A study of the application of the Public Sector Comparator in the Cascais and Braga cases showed that most of
the expected Value for Money benefits were expected to be found in clinical services, as a result of introducing more efficient private sector management practices. The only formal independent evaluation published on the PPP was carried out in 2009 on the rehabilitation center in São Bras de Alportel, Algarve, and it notes the low level of capacity utilization. (Simões et al 2009).

In a comparison of performance of public hospitals in 2009, both Cascais and Braga appeared among the ten best hospitals in a few clinical indicators such as readmission rates when operating in the old facilities but under new private management while the new hospital was being built (Costa et al 2010):

- The key lesson from the Portuguese PPP hospital program is that the risks that can be allocated to the private operator depend essentially of the risk appetite of the potential international creditors, which can be considerably more limited than the risk appetite of local sponsors. The integrated hospital option was controversial among creditors from the beginning and it exhausted the market risk appetite before the onset of the financial crisis;

- Developing an ambitious initial project pipeline of 5-10 hospitals also proved essential in mobilizing credible bidders, mostly smaller scale local health operators which joined together to create sponsoring consortia;

- The fact that first tender process for the Loures hospital had to be cancelled and relaunched, because of problems with the tender specifications and non-compliant bids, not because of lack of interest, demonstrates the ability to self-correct which is essential in such a complex process;

- Capacity and skills requirements in the public sector, both for procurement and for contract monitoring have proven to be much greater and costlier than originally expected;

- Some quality benchmarking and demonstration effects may appear as ACSS now routinely publishes comparable operating statistics for PPP and EPE hospitals, which it is too early of evaluate. The new PPP hospitals are required to obtain ISO certification and accreditation with the Joint International Commission, which Cascais has already achieved;

- One risk that was passed to the integrated hospital operators was that of labour relations and staff management, which is always a critical issue in health care, especially when PPP must integrate SNS staff from public hospitals. Originally, integrated PPP hospitals favoured the CIT, individual work contract, but they are now expected to apply the ACT, the collective labour agreements which apply to the SNS as a whole. In practice, savings fell short of expected because the expected transition of public to private management practices did not take place as fast as foreseen;

- What is clear thus far, into 2013, is that the integrated PPP hospital program has generated far fewer fiscal and budget risks than the PPP programs in other sectors such as transport, because of the careful use of the PSC-public sector comparator and the cost-benefit analysis.
which targeted efficiency gains in mostly replacement hospitals. Some concerns have arisen regarding the turnaround of the Cascais and Braga concessionaires, however, after losses in the ramp-up period (E&Y 2012).
**Annex: Coping with challenges of PPP hospitals in Portugal**

Since it was the first PPP hospital project in Portugal, the Cascais procurement had some of the characteristics of a “pilot” project, as solutions had to be found for a number of challenges.

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<thead>
<tr>
<th>Challenge – Cascais</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Unwillingness to accept clinical risks posed problems in attracting international sponsors and creditors.</td>
<td>Creation of two SPVs, with separate concession and finance contracts and different durations, and the provision of shareholder support for the financing of the CliniCo hospital operator.</td>
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<tr>
<td>Refusal of the Court of Auditors approval due inconsistencies in the scope of the Cascais clinical contract.</td>
<td>Resolved with a special arrangement with another SNS hospital.</td>
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<tr>
<td>Contractual requirement to recruit up to 95% of the staff from the SNS, but except in Loures, few of the SNS staff accepted to transfer individual labour contracts with exclusivity.</td>
<td>Clinical operators adjusted staffing plans and some incurred higher than expected staffing costs. Cascais cut remuneration as part of the public sector austerity measures in 2012. (HPP 2011).</td>
</tr>
<tr>
<td>Over-flow problem due to the rapid ramp-up in demand as patients flocked to the new Cascais hospital not entirely reflected in additional remuneration.</td>
<td>ARSLVT held firm to the lower contracted production levels, in light of austerity measures in the SNS as a whole. After a change of management, and a SNS-wide increase in the moderating charges or co-payments, the hospital operator was able to bring performance closer in line with the contract.</td>
</tr>
<tr>
<td>An increase in VAT from 19% to 23%, as well as various other austerity measures, also added to a real live “combination downside” scenario.</td>
<td>Like every other company in Portugal, the hospital concessionaires are having to cope with adverse macroeconomic conditions.</td>
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<th>Challenge - Loures</th>
<th>Response</th>
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<tr>
<td>The first Loures tender suffered design and the bids were not comparable.</td>
<td>First tender was cancelled, with no compensation paid, after obtaining a special opinion was sought from PGR, the public prosecutor’s office (PRG 2006). About 24 months were lost, but the second tender was executed speedily.</td>
</tr>
<tr>
<td>Three PPP hospitals in the Lisbon area, only two replacements, presuppose the closing of existing facilities.</td>
<td>A hospital master plan (carta hospitalar) has been prepared in 2012 and the decisions about which of the older hospital units to merge or close are still...</td>
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Challenge - Loures

Although the Loures catchment area and bed numbers were adjusted downwards in 2007 to make room for the new Lisboa Oriental which has since been suspended. As a result, about one third of the population of the Loures municipality continues to be served by the older hospitals in Lisbon city center, though Loures has unused capacity of nearly 40%.

Response

Under discussion. A problem typical of planning decisions with long lead times, the MoH will not adjust the Loures catchment areas nor the production limits for the Loures hospital until the status of Lisboa Oriental is reviewed and a new calendar defined. The Loures municipality, which contribute land and facilities valued at about €20 million would like an earlier decision.

Financial market conditions deteriorated as financial close approached in December 2009, tightening financing conditions for Loures and Braga.

Benefitting from being part of the Espirito Santo financial group, the Loures InfraCo still secured a 27-year loan. The Braga InfraCo obtained mini perm financing (maturity of 11 years, despite de involvement of the EIB).

Accessibility by public transport has been an issue for the new Loures hospital since the is located in land donated by the Loures municipality on an hill-side, just outside the “transportation tariff zones” which radiate from the center of Lisbon, adding to transportation costs. In addition, heavy-duty coaches are not allowed to drive up to the hospital entrance, and passengers have to walk some distance up-hill from the bus stop.

This not-so-little accessibility detail is now being discussed in the press as it impacts on patient satisfaction and may have some cost implications for the private operator, the ARSLVT or the municipality. (Vaz 2013). Users of a major hospital need convenient public transportation services.

While clinical PPPs are “just one more health care provider” in an insurance-based system, they imply a major transformation in clinical and staff management in an NHS system. Managing this transition in the contractual status of existing NHS/SNS staff, with their HR legacy rights, including non-exclusivity, and may require maintaining separate HR classifications and procedures, with management and cost consequences.

As a new hospital with no legacy staff, Loures required to recruit only 80% from the SNS, which it did selectively. Nearly 97% of the medical staff still came from other SNS units but accepted individual work contracts. Loures staff costs per patient is expected to be lower than the other PPP hospitals.. (Vaz 2013).
14. Literature and References

- ACSS, Health Sector PPP Portugal October 2012;
- BPI, Health PPPs in Portugal, single and twin SPV PPPs, November 2009;
- Carias, J. 2012, As Parcerias Público-Privadas em Projetos de Infra-Estruturas em Saúde, O Caso dos Hospitais em Portugal, IST;
- OECD 2012 How Does Portugal Compare;
- Tribunal de Contas, Relatório de Auditoria das Parcerias da Saúde no.15/2009;
Project Case Study Hospital Hospital Beatriz Ângelo, Loures

1. Introduction

The 424-bed Beatriz Ângelo Hospital opened in January 2012 in Loures, 14-km west of Lisbon to serve a population of 286.000. It is an acute general hospital providing a broad range of services to SNS users with a staff of 1.200 workers, including 290 doctors and 370 nurses. (HBA 2012).

Loures is the only one of the four new PPP hospitals which is not a replacement hospital, and it is contracted in December 2009 by ARSLVT, Administração Regional de Saúde de Lisboa e Vale do Tejo (ARSLVT), the regional unit of the SNS which is the public contracting entity and contract manager to twin-SPVs, HL - Sociedade Gestora do Edifício, SA, controlled by the construction contractor Mota Engil, the InfraCo, and SGHL - Soc. Gestora do Hospital de Loures, SA the CliniCo, owed by Espírito Santo Saúde. The catchment area as well as the clinical scope (perfil assistencial) are defined in the contract.

The project budget was about €135 million, with the hospital infrastructure valued at €84.6 million and the clinical services at €29 million.

Besides meeting the gap in health infrastructure, the primary reason the Government looked to PPPs was to achieve efficiency gains in the provision of health care, risk transfer and demonstration effects with private management, as well as to overcome tight budget constraints.

2. Type of Contract and Key Design Features – twin SPV model

The Loures hospital followed the “twin-SPV Cascais model”, including both the hospital facilities and clinical services, which were awarded to separate project companies or SPVs, each with its own concession contract of different duration and distinct payment mechanisms. Parking facilities are managed by the InfraCo, while the CliniCo is also responsible for non-clinical support services including cleaning, security, laundry and waste disposal. The land where the hospital is built was made available rent-free by the Loures municipality under a 70-year renewable lease. The hospital facilities and clinical establishment revert to the SNS at the term of the respective contracts.

One set of Stakeholders which is critical in the health sector are the health professionals. As a new PPP hospital, Loures was still obliged to recruit 80% of its staff from the SNS, but it could be selective and promote the use of individual contracts. In the transition, staff members transferring from other SNS units had the option of retaining their SNS legal status as funcionário publico, with the option to move to a individual labour contract (contrato individual em funções públicas). In Portugal, the labour laws governing labour relations for “funcionários públicos” are traditionally quite different than those in the private sector, so this creates certain “acquired rights” which workers are reluctant to give up. For example, nearly 70% of the medical staff of SNS hospital engages in private practice after hours, and the doctors with exclusivity traditionally receive a wage premium.

In order to accommodate the different interests and requirements of the public and private partners with respect to the duration of the infrastructure contract which required the most investment was set at 30 years. The duration of the clinical contract was limited to 10 years, renewable up to 30 years, in order to provide for flexibility within the context of evolving SNS needs.
3. PPP Award Process and Key Features

The Loures tender had the first to be launched under the ambitious PPP hospital programme in March 2004, but it got off to a false start as the four bids were found to be non-conforming and the procedure had to be cancelled by the authorities in March 2006. While the other projects moved ahead, the Loures II tender was re-launched in April 2007. The number of beds was reduced from 25% from 565 to 424 from the first to the second Loures tender, in expectation of the eminent launch of the 705-bed infrastructure-only Lisboa Oriental project. Only two bidders presented the second time around, when it was already known that it would be the last of the integrated PPP hospital transactions. The final Loures bid came in at €594 million in NPV terms, about -20% below the public sector comparator, in the middle of the range of -8% to -33% of the four PPP hospitals.

The procurement process was speedy and financial close was achieved in December 2009.

The infrastructure contract was awarded to HL Hospital de Loures Sociedade Gestora do Edifício, SA, the InfraCo controlled by the construction contractor Mota Engil, and the clinical services contract to SGHL - Soc. Gestora do Hospital de Loures, SA the InfraCo owned by Espirito Santo Saúde, the CliniCo. As usual, the procurement process was managed jointly by Parpublica central PPP units and Parcerias da Saúde the health PPP Unit. A representative of the ARSLVT public contracting entity joined the Loures II project team from the beginning and took over the control and monitoring of the contracts upon signing.

4. Project Parties and Sources of Financing

In Loures, as in the other PPP hospitals in Portugal, the two project SPVs have different sponsoring shareholders, and each has its own finance contract, though usually with the same bank group. The financing for the InfraCo is project-based and longer term, with the InfraCo and its creditors taking availability risk. Loures is the only project to include a non-Iberian bank creditor, Barclays. The financing contract of the CliniCo, which has clinical risk, is based on corporate support from the sponsoring shareholder.

5. Contractual framework, risk allocation and governance

The risk allocation followed of the Loures contract was similar in nearly all respects to that of the other three integrated hospital contacted in Portugal under the Cascais twin-SPV model.
6. Payment Mechanism

The payment mechanism is similar to that of the other three integrated hospitals contracted under the twin-SPV Cascais model.

Currently, Loures receives €2.300 per “standard patient” (no comparable data is available for the other hospitals).

7. Evaluations of key results and impact

The Value for Money differential at tender was 20%. The construction of the Loures hospital construction took for 24 months, and it was achieved on time and within budget. According to the sponsor ESS, the hospital construction cost estimated by the concessionaire to be 25% less than if it had been built by the MoH (Vaz 2012) The hospital has only been operating for 12 months since early 2012 so it’s too early to draw conclusions regarding the on-going Value for Money.

In its first twelve months of operations, the CliniCo reported discharged 14.000 patients and performed 129.000 consultations with revenues estimated of €56 million. Production ramp-up was slower than expected, falling about 10% short of forecast (Vaz 2013).

Hospital managers admit that there is some "room for improvement", particularly in terms of transport and accessibility. They are dealing both with the municipal authorities and the transport operators to find a possible solution to the difficulty of access.

Loures has faced no fines for non-compliance thus far, in contrast to the persistent problems of Braga.

Although it is too early to do a proper evaluation of the impact of the Loures hospital, it is clear that the project is in a doubly privileged position when compared to the other PPP hospitals. As a new hospital, it can avoid many of the legacy problems such as the staff resistance to change which have dogged Cascais and Braga. And as the last of the integrated hospitals to be tendered, it benefitted from the learning curve, and still secured good financing terms and higher shareholder returns. As the last integrated hospital project, it also faced less competition, probably because other local bidders and creditors already had their hands full with the first three projects and no international bidders appeared.

The Loures PPP hospital can be evaluated in terms of access to health care, quality of health services and sustainability for all the project parties, as well risk management.

Access clearly improved for the population served, despite the remaining public transportation issues. One indicator of access are the percentage of first appointments to total appointments in which compares rather well thus far.

The quality of health services is good and is monitored closely by the SNS authorities, which have published only partial data which are presented in the snapshot in the Portugal country study. The hospital is also seeking ISO quality certification as required by its contract. Patient satisfaction levels have been consistently good. (SGHL e 2012).

Regarding sustainability for the private partners, it has not been an issue for Loures which opened only in early 2012, an which is in a much better position to achieve positive financial performance, even in the face of unexpected variations in production. (E&Y 2012).
Sustainability from the perspective of the ARSLVT and the SNS are also been considered acceptable by the MoH authorities, though comparisons are not yet useful due to the short operating period. In terms of risk transfer and risk management, the MoH has effectively transferred clinical risk, management risk including those risks related to staffing costs and levels, infrastructure construction and operating risk, production risk relative to the annual ceilings, interest rate risk and financing risks, as with the other similar projects.

The major service impact factors of the PPP are quantified in the 150 indicators provided monthly to the ARSLVT, some of which will be published regularly in the coming months. For example, the one-month snapshot below shows that s of November 2012 Loures had already achieved a bed occupancy rate was a record 73,21%, 71,76% of surgeries were ambulatory, though 5-day readmission rates were relatively high 2,24%.

Thus far, there is no report of detrimental impact on services, unplanned changes in bed numbers or staffing levels.

The Loures hospital has gotten off to a good start, though no financials are available yet. If it continues in this level it should make a positive contribution to the health policy objectives of increasing access, efficiency and sustainability for the SNS.

8. Lessons Learned

Some of the specific lessons learned from the Loures PPP hospital can be ordered according to the basic PPP project phases, preparation, execution and monitoring.

Preparation involved a costly lesson with the cancellation of Loures I but the procurement of the repeat Loures II was executed smoothly. Project selection was guided by general considerations of the population needs and the dimension and was adjusted downward by over 20% to allow for another hospital which has since been suspended. This is a not-unusual planning problem for large infrastructure given the long lead times. Altogether, the Loures hospital took about eight years from launch of the first tender to financial close of the second tender in December 2009, in vastly different market conditions.

The PSC public sector comparator developed with inputs from other SNS units, is essential and it can serve to effectively cap bid prices.

Loures was able to secure financing on good terms, 27-year maturity, despite the on-set of the financial crisis, in part because it had secured firm funding commitments from its creditors, including one which is part of the same economic group as the lead shareholder Espirito Santo Saúde.

9. Sources of Data

Hospital Beatriz Ângelo presentation, Nov-2012;

Hospital Beatriz Angelo

DGTF 2009 Loures concession data sheet

Vaz, A 2013
Project Case Study Hospital Dr José de Almeida, Cascais, PORTUGAL

1. Introduction

This case profile should be read in conjunction with the country study of health PPPs in Portugal.

The 277-bed Dr José de Almeida Hospital in Cascais opened in February 2010 in Alcabideche, Cascais, 25-km west of Lisbon to serve a population of 170,000. The Cascais hospital is an integrated acute general hospital providing a broad range of services to SNS users with a staff of 975 in 2011, including 200 physicians and 338 nurses (HPP 2011).

The project was the first and the smallest of four new hospitals contracted by the SNS, (Sistema Nacional de Saúde) the Portuguese national health service, under the integrated hospital or “Cascais model” which includes both the design, building, financing and operation of the hospital facilities as well as the delivery of clinical services, under two different contracts.

The new hospital absorbed and replaced an aging 155 bed hospital in the city centre, its construction took for 24 months, and it was achieved on time. The project cost was €99.2 million, with the hospital infrastructure valued at €67 million and the clinical services at €32.2 million. The hospital facilities and the clinical establishment revert to the SNS at the respective contract term.

In 2011, its first full year of operations in the new facilities, HPP Parcerias Saúde, the CliniCo reported production of 4,057 conventional surgeries and 3,519 ambulatory surgeries, 14,698 in-patients and 120,873 outpatient visits and revenues of €68,6 million and a negative EBITDA, (earnings before interest and taxes) of -€2,2 million (HPP 2011).

The hospital is located within the ARSLVT (Administração Regional de Saúde Lisboa e Vale do Tejo, regional health unit of the SNS) covers about one seventh of the national territory but about 34% of total population. About 17.9% of the ARSLVT population was age 65 as over, as of 2008, reflecting the fact that Portugal is one of the countries with the highest average age in Europe (INE, ARSLVT).

2. Type of Contract and Key Design Features – Cascais twin-SPV integrated hospital model

As described in the Portugal country summary, Cascais was the first bundled integrated PPP hospital contact to reach financial close in February 2010, consisting of two contracts with twin-SPVs: a 30-year contract for the infrastructure and facility services and a 10-year contract for the clinical services. The bundling of clinical services within the hospital PPP in Portugal contrasted with the prevailing infrastructure-only PFI model and posed key challenges with lenders and investors. (Project Finance International 2010).
The Cascais hospital is integrated in the SNS referral network, receiving patients from the primary care network of community health centers and referring special cases to central or specialized hospitals when they are outside of the hospital’s clinical scope, or when its contracted production limits have been exceeded.

3. PPP Award Process and Key Features

Parcerias da Saúde, the health PPP unit created in 2001 managed the procurement of the PPP hospital in close collaboration with Parpública, the former Central PPP unit of the MoF. MoH planning units provided much of the technical support, especially in costing the Public Sector Comparator. A representative of the ARSLVT public contracting entity joined the Cascais project team in 2007 and took over the control and monitoring of the contracts upon signing.

Project preparation included the calculation of separate detailed PSC -public sector comparators for the hospital facilities and the clinical services, including, capital building and operating and facilities maintenance costs, and clinical service costs including staff, medications, etc. There were four bidders and the final bid came in at €377million in NPV terms, about 8% below the PSC. A recent statistical study comparing Cascais with a group of other SNS hospitals confirmed that the official PSC was reasonably accurate, at about 99% of the estimated mean PSC, which lends credibility to the Cascais procurement process.

<table>
<thead>
<tr>
<th>Infrastructure Cost Estimates</th>
<th>Lower Limit</th>
<th>MEAN</th>
<th>Upper Limit</th>
<th>Offical PSC</th>
<th>PSC / MEAN</th>
<th>BAFO</th>
<th>BAFO / PSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascais Infra 2005</td>
<td>66</td>
<td>69</td>
<td>73</td>
<td>81</td>
<td>118%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cascais Clinical</td>
<td>324</td>
<td>345</td>
<td>367</td>
<td>328</td>
<td>95%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cascais</td>
<td>393</td>
<td>414</td>
<td>440</td>
<td>409</td>
<td>99%</td>
<td>377</td>
<td>92.2%</td>
</tr>
</tbody>
</table>


The tender for the Cascais PPP hospital was launched in September 2004, and four bids were received in 2005. Contract signing took place in February 2008, but the Court of Auditors refusal of approval required a reformulation of the contract, consisting of a small redefinition of the scope of services with the neighboring public hospital, which was signed in November 2008. Construction was carried out within the 2 years period foreseen and the new hospital opened in February 2010.
4. Project Parties and Sources of Financing

The Cascais contracts were awarded in February 2008 by ARSLVT, as the public contracting entity and contract manager, to TDHOSP- Gestão de Edifício Hospitalar, SA, owned by the construction contractor Teixeira Duarte, the InfraCo, and to HPP Parcerias Saúde, SA, the “CliniCo”, which had Caixa Geral de Depósitos (CGD), the largest and State-owned bank as its ultimate shareholder.

In Cascais, the two project SPVs have different sponsoring shareholders and each has its own financing contract, though with the same bank group. The financing for the InfraCo is project-based and longer term, with the InfraCo and its creditors taking availability risk. The financing contract for the CliniCo, which has clinical risk, is based on support from the sponsoring shareholders.

Since HPP Parcerias Saúde was, until recently, controlled by the insurance subsidiary of CGD, the largest and State-owned bank, the Cascais model was to some extent a public-public partnership. The InfraCo is controlled by a private construction company Teixeira Duarte.

The Cascais CliniCo reported €18 million in debt as of 2011, with original maturity of 8 years, and highly favourable pricing since the contract was signed in early 2008. The Cascais InfraCo reported debt of €50 million as of 2011, with original maturity of 26 years. Both equity and debt was provided mostly by local banks.

5. Contractual framework, Risk Allocation and Governance

Design, construction and financing risk were passed to InfraCo. It, in turn, mitigated construction risk through fixed price contracts and the same was done with general equipment. Maintenance is also subcontracted. The performance penalties in the concession contracts with the ARSLVT are reflected “back-to-back” in these subcontracts. Interest rate risk was hedged.

Clinical operating risks were transferred to the CliniCo and its shareholders, including for production above the annual ceiling, and operating and staff costs. Force majeure, if not insurable, may the subject of contract
rebalancing by ARSLVT the contracting entity, which has the option to extinguish the contract, with its respective rights and obligations, if it deems the rebalancing requirements too onerous.

6. Payment Mechanism

The ARSLVT remunerates the InfraCo contract through availability payments, partially adjusted for inflation, and with penalties for underperformance.

The remuneration of the clinical services of the CliniCo has four components:

- Fee per procedure for actual production up to annual ceilings which are negotiated but may be set unilaterally by the public contracting authority on the basis of health care services used by the reference population over the previous 5 years. The fee set in the tender, partially adjusted for inflation, is based on DRGs adjusted by case-mix. The actual amount is not disclosed;
- Availability payments for emergency services, with no volume cap;
- Adjustments for medications actually used;
- Deductions for performance failures as the hospital is monitored though a battery of indicators that are supplied monthly to ARSLVT, 60 KPIs (key performance indicators) for results, 23 KPIs for services and a periodic patient satisfaction survey.

Payments for the hospital building were €9 million per year in 2010 and 2011, while annual payments for clinical services increased from €52 million to €63 million. It is important to note that the payments for clinical production replace spending with existing SNS hospitals, since Cascais is a replacement hospital and took over SNS staff. The total payment of €72 million for the Cascais PPP hospital was 26% above the amount foreseen for 2011, due primarily to new treatments contracted above the base production limits. The NPV net present value of payments due under the Cascais PPP hospital contract, calculated as of the end of 2011 is €497 million.

7. Evaluation of Key Results and Impact

The Cascais project, together with the other PPP hospitals, has been the subject of internal audits by units of the SNS, as well as by the IGF, the Finance Inspectorate and the Court of Auditors, as well as an independent evaluation mandated under the Program of Financial Assistance, (E&Y 2012) though no specific post-completion evaluation has been carried out. The Court of Auditors reports are published and recommendations are followed up. Some of the hospital’s production and service quality indicators have been released in the past and are to be published on a monthly basis in a format comparable to the other SNS hospitals, by ACSS, the central SNS management unit.

The CliniCo begun operating the existing hospital, moving to the new hospital in February 2010 but it accumulated significant losses until 2011, which resulted in negative net worth of about €30 million. This can pose a threat of insolvency under Portuguese corporate law and raised concerns that its ability to deliver clinical services “might be compromised in the future” (Ernst &Young 2012). After a change in management in October 2011, the hospital operator has since achieved a remarkable turn around and was expected to
stabilize in 2012 after a change in management (HPP 2012). Having been taken over by a new Brazilian shareholder AMIL, as of mid-2013, HPP Parcerias da Saúde, SA, is halfway through its 10-year clinical management contract which will end in 2018.

The losses resulted from “deviations from the base case assumptions”, especially in term of cost control, but also in terms of (non-remunerated) excess production due to the initial surge in demand. In fact, the CliniCo temporarily installed additional beds (+22%) with ARSLVT approval, and talked of building one more floor. However, ARSLVT used its contractual prerogative of setting tighter production quotas unilaterally in 2011 and 2012, tough based on volumes of the previous 5 years. In the context of a generalized Government austerity program which aimed to reduce public health expenditures by 7 % in 2011 and more beyond, “it was out of the question” for ARSLVT to authorize higher production volumes or increase fees (Expresso 2011).

By invoking this exceptional clause to set annual production quotas unilaterally, ARSLVT has enforced the sharing of volume risk as foreseen in the contract, and effectively “compressed” its payments to the hospital operator.

On balance, the expectations of the MoH have been achieved, not so those of the operators. The financial return on investment appears to be on target in the InfraCo, even though it too has negative capital, but the CliniCo has been clearly performing far below the base case, and though it is has stabilized, it only has five years in which to recover its investment. (E&Y 2012).

One important finding from the Government perspective is that contract management requirements and costs have been higher than expected for the ARSLVT which has a team of 10 senior staff managing three PPP hospital contacts, visiting the hospitals regularly and examining over 150 performance indicators monthly.

The impact of the Cascais hospital PPP can be evaluated in terms of access to health care, quality of health services and sustainability for all the project parties, as well risk management.

Access clearly improved until 2011, especially considering the production in excess of contracted levels. Demand has fallen off markedly in 2012 due to higher co-payments, but it is still above the production quotas set by ARSLVT.

The quality of health services has clearly improved in the new facilities when compared with the existing hospital. The Cascais PPP hospital was one of the first SNS hospitals to achieve ISO quality certification as well as accreditation by Joint Commission International. Patient satisfaction levels have been consistently acceptable. (HPP Saúde 2012)

With regard to financial sustainability for one and all of the project parties, the evidence thus far is mixed. ARSLVT, the public contracting entity, has clearly improved the predictability of its outlays, with the private operator having to absorb excess costs. In recent public statements, MoH authorities have
defended the PPP hospital contracts, though comparisons of actual to expected contract payments are not available (E&Y 2012).

Since the InfraCo financing costs were fixed in 2008 before the financial crisis hit, and TDHOSP, the Cascais InfraCo, has reported positive cash flow (EBITDA) in 2011, though with accounting losses resulting in negative capital (E&Y 2012). The CliniCo, however, got off to a bad start financially and although it has turned around it may not have enough time in the 5 years remaining in its 10-year contract to recover its accumulated losses and meet its return targets.

In terms of risk transfer and risk management, the MoH was effectively transferred clinical risk, management risk including those risks related to staffing costs and levels, infrastructure construction and operating risk, production risk in excess of the annual ceilings, interest rate risk and financing risks. Risk transfer has limits, however. At one critical junction in early 2011, and again when CGD sought buyers for its HPP Saude subsidiary, the accumulation of losses raised concerns for the CliniCo.

The major service impact factors of the PPP include quantifiable improvement in access to services, in clinical quality, and in patient satisfaction. Any under-performance can be reflected in the deductions and penalties. The MoH has begun to publish about 100 performance indicators, compared to those of other SNS hospitals, and intends to do so quarterly in the future. As shown in the November 2012 snapshot below, the Cascais bed occupancy rate of 80% was below that of two larger SNS hospitals nearby, while the number of patients discharged per doctor was considerably above. Other indicators, such as the rate of readmission within 5-days and the rate of Caesarian deliveries compare well in this snapshot, though a more thorough comparison would be necessary to draw firm conclusions.
<table>
<thead>
<tr>
<th>Portugal - Hospital KPI's</th>
<th>Cascais PPP</th>
<th>Loures PPP</th>
<th>Amadora-Sintra EPE</th>
<th>Lisboa-Ocidental EPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beds</td>
<td>277</td>
<td>424</td>
<td>785</td>
<td>817</td>
</tr>
<tr>
<td>Bed occupancy rate</td>
<td>80,2%</td>
<td>73,2%</td>
<td>88,3%</td>
<td>82,1%</td>
</tr>
<tr>
<td>Average delay, days</td>
<td>6.83</td>
<td>7.6</td>
<td>7.91</td>
<td>9.25</td>
</tr>
<tr>
<td>Average length of stay, surgery, days</td>
<td>5.05</td>
<td>5.06</td>
<td>7.54</td>
<td></td>
</tr>
<tr>
<td>Average length of stay, medical, days</td>
<td>9.01</td>
<td>10.20</td>
<td>10.18</td>
<td></td>
</tr>
<tr>
<td>First external consultation as pct of total consultations</td>
<td>38%</td>
<td>54%</td>
<td>32%</td>
<td>22%</td>
</tr>
<tr>
<td>Patients discharged/bed</td>
<td>3.57</td>
<td>2.72</td>
<td>3.39</td>
<td>2.70</td>
</tr>
<tr>
<td>Patients discharged/doctor</td>
<td>18.37</td>
<td>13.14</td>
<td>10.54</td>
<td></td>
</tr>
<tr>
<td>Patients readmitted within 5 days as pct of total</td>
<td>1,4%</td>
<td>2,1%</td>
<td>2,0%</td>
<td>1,8%</td>
</tr>
<tr>
<td>Ambulatory surgery, as pct of total</td>
<td>63,7%</td>
<td>71,8%</td>
<td>55,7%</td>
<td>47,4%</td>
</tr>
<tr>
<td>Caesarean deliveries as pct of total</td>
<td>30,0%</td>
<td>26,4%</td>
<td>38,2%</td>
<td>33,0%</td>
</tr>
<tr>
<td>Emergencies</td>
<td>133.421</td>
<td>119.31</td>
<td>230.429</td>
<td>148.206</td>
</tr>
<tr>
<td>Emergencies with admission as pct of total</td>
<td>6,4%</td>
<td>7,4%</td>
<td>8,1%</td>
<td>9,9%</td>
</tr>
</tbody>
</table>


Another important issue is the integration with the SNS primary care units and the specialized hospitals. The patient referral system is reported to be working better now with the CTH-Consulta a Tempo e Horas, the on-line appointment system of the SNS, but the implementation of electronic medical records throughout the SNS is delayed, so, on occasion, some patients still carry their lab reports in-hand as the move among health service units. This, like the issue of increasing co-payments, is a matter of SNS policy and performance and not specifically related to the hospital PPP contract.
8. Lessons Learned from the Cascais twin-SPV integrated PPP hospital model

The lessons learned from the “twin-SPV Cascais model” thus far can be ordered according to the basic PPP project phases, preparation, execution and monitoring. The decision to replace existing hospitals and take over SNS staff added complication but served to mitigate the risk of excess capacity.

The impact of the novelty of the integrated hospital model, in contrast with the simpler infrastructure-only PFI model was certainly underestimated. This contributed to delays as solutions had to be found for dealing with clinical risks, and some potential international sponsors and creditors may have been put off (Project Finance Magazine 2011). The consequences of these options could have been made more clear with earlier in the process of international market consultations regarding risk appetite. Ultimately, the choice of any PPP model, and the inherent risks, is greatly dependent on the risk appetite and risk absorption capacity of the sponsors and the banks. To be fair, health PPPs rely mostly on local rather than cross-border investors and creditors. In a small country, non-standard risk profiles may imply that health PPP projects can attract only local sponsors and local banks, even in the less risk-averse times of the last decade.

- Actual execution of the Cascais procurement process was problematic, stretching to a total of 65 months. But there was a good number of bidders (4), mostly local national, and bid prices offered a modest but acceptable value for money of 8% under the PSC. In terms of execution, policy continuity, even in the face of five Government changeovers, proved essential, especially since this was innovative “pilot” project which required a lot of clarifications and negotiations;
- In the post-completion phase, monitoring presented challenges as the Cascais clinical operator reported losses. The possibility of the banks stepping-in was not raised since the lead creditor was also the lead shareholder in CliniCo, and remedies had to be found in-house rather than through the exercise of bank step-in rights;
- In 2011, CGD had to recognize impairment of its investment in HPP because of the hospital losses (CGD Notes to Financial Statements 2011), and it was required to sell its health (and insurance) operations in order to concentrate on its core banking business. A financial rather than strategic investor may be necessary in small countries, in the absence of potential local sponsors with relevant health sector experience, but this may require adjustments in the shareholder groups in time.

### Challenges in the Cascais PPP Hospital

<table>
<thead>
<tr>
<th>Challenges in the Cascais PPP Hospital</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks’ unwillingness to accept clinical risks posed problems in attracting international investors and creditors.</td>
<td>Creation of two SPVs, with separate concession and finance contracts and different durations, and the provision of shareholder support for the financing of the CliniCo hospital operator.</td>
</tr>
<tr>
<td>Refusal of the Court of Auditors approval due inconsistencies between the clinical contract and the</td>
<td>Resolved with a special arrangement with another SNS hospital.</td>
</tr>
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</table>
Challenges in the Cascais PPP Hospital

<table>
<thead>
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<th></th>
<th>Solution</th>
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<tr>
<td>Staffing plans were subject to the contractual requirement to recruit 95% of the staff from the SNS.. Contrary to expectations imbedded in the base case, few of the SNS staff accepted to transfer from their existing “public functions” to individual labour contracts with exclusivity. This had negative implications for staff management and staff cost control.</td>
<td>Hospital operators had to adjust staffing practices. On the other hand, since HPP - <em>Parcerias Saúde</em>, SA the CliniCo was controlled by the State-owned Bank Caixa Geral de Depositos, it was obliged to apply the salary reductions dictated by austerity program from 2012 until recently, when the company was sold to AMIL a Brazilian operator in February 2013, which contributed to improving financial performance in 2012. (HPP 2011).</td>
</tr>
<tr>
<td>The rapid ramp-up in demand as patients flocked to the new hospital in after it opened in early 2010 created a temporary over-flow problem requiring excess production and the accumulation of losses leading to negative net worth of €30 million as of the end of 2011.</td>
<td>ARSLVT paid for some increases in treatment, but then used its contractual right to set production quotas unilaterally. After a change of management, and a SNS-wide increase in the moderating charges or co-payments under the austerity program, the Cascais clinical operator was able to bring performance closer in line with the contract, though its financial condition remains a concern.</td>
</tr>
<tr>
<td>An increase in VAT from 19% to 23%, as well as various other austerity measures, also added to a real live “combination downside” scenario.</td>
<td>Like every other company in Portugal, the hospital operator is having to cope with adverse macro conditions.</td>
</tr>
</tbody>
</table>

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Case Study: Spain

Public – Private Partnerships in the Spanish healthcare system

1. PPP Law/Legal Framework/PPP Policy in Health - SPAIN

The General Health Law 14/1986 confirmed the constitutional universal right to health care, including irregular immigrants and visitors (Acerete 2011). Health benefits were and are defined centrally but responsibility for service delivery and funding was devolved to the 17 regional governments or “Comunidades Autonomas” (CA) as of 2002. Health provision is mostly tax-funded and has been free of charge at the point of delivery, except for co-payments for medication.

The Public Contracting Act of 1995, aligned with EU legislation, further confirmed the option of provision of local services by private operators, as determined by the Municipal Services Act of 1955. (Torres 2001). Law 15/1997 provided for new forms of health systems management, including contracting with foundations and public companies (100% public capital) as well as administrative concessions (private capital). The Public Sector Contracts Law, (revised by Real Decreto Legislativo 3/2011, of 14-November) defined procurement procedures for public service administrative concessions, among other forms of public procurement, and provided for the maintenance of the financial equilibrium of these contracts. The Concession Law (Ley de Concesiones de Obras Públicas) passed in 2002 by the Spanish government facilitated the expansion of PPPs into other public service sectors beyond transport. (Allard, Cheng 2009).

In terms of labour legislation, staff regulations differ substantially between the public and private sector. Public health personnel have the option to retain their SNS (national health system) statutory link, but about 70% have accepted contracting under private employment law in a number of cases.

According to the Health Systems in Transition report (and SESPAS 2010), health expenditure in Spain was 8.5% of GDP in 2007, rising to 9.5% of GDP in 2011, still below the European average even though the population aged 65 and older was 16.75%, above average. The public sector provided for 71% of spending, (mostly taxpayer based), voluntary private insurance accounted for 5.5% and OOP, out of pocket payments was 24.5%, mostly in the form of co-payment for medication by patients under 65-years old.

Public health expenditure breaks down into 54% for specialist care (in-patient and ambulatory), 16% for primary care, and 19.8% for pharmaceuticals. The 17 Autonomous Communities were responsible for about 90% of public expenditures on health, which absorbs between 30-40% of their total budgets. Funding comes from non-earmarked transfers from the central state budget and retention of tax revenues raised locally (50% of personal income taxes and VAT and excise taxes) and some special funds allocated on a per capita basis adjusted for age-based health needs.
2. Centralised PPP Unit on health at country level/ Decentralised decision making (devolved/decentralized approach used for management of PPP)

Spain is considered unique among European countries in not having a central PPP agency (Allard 2008), preferring a "plural Spain" approach, also in the health sector. There has been no tradition of applying a public sector comparator (Allard 2008), no mandated standardization of project documents, and no overall articulated PPP strategy. Given this decentralised approach, the role of the central government consists of defining basic health policy, regulatory standards, and minimum expenditure levels, as well as general procurement law. Public civil servants may opt out of the SNS coverage; they have their own health mutual funds MUFACE, funded by payroll contributions and the taxpayers.

3. First PPP Contract: (year, name)

In 1999, the Comunidad Valenciana granted a 10-year “administrative concession” contract to build, finance and manage a new public hospital in Alzira, under Law 15/1997. The single bidder was a “temporary union” of companies, Ribera UTE, with the sponsors being the insurer Adeslas SA with 51% and Ribera Salud SA with 45%. Adeslas was majority owned by Agbar SA and ultimately by La Caixa, a regional savings bank. Ribera Salud SA was controlled by regional savings banks Bancaja, CAM and Caixa-Carlet. Caixa-Carlet failed and had to be absorbed by Bancaja, in part because of its outsized investment in La Ribera, SA. The construction companies Dragados and Lubasa each took a 2% of the project company RSUTE (Acerete 2011). The original project was funded on a corporate basis with loans from the savings banks channelled through the sponsors. RSUTE is not required to publish financial statements (key issue: single, local, in-house bidder).

Since Ribera Salud UTE was ultimately dependent on regional savings banks controlled by CA Valencia itself, the procurement procedure could in fact have been characterized as an “in-house” transaction, substantially within the public sector.

The hospital operator was remunerated by an innovative annual capitation fee which started out at only €204 in 1999, well below comparable benchmarks. Consequently, the (Alzira I) project accumulated losses. (best practice: capitation fee, applicable only in full health service provision PPP)

The public partner CA Valencia chose to terminate the contract, with compensation for foregone profits, in 2003 and to retender it, again to Ribera UTE, with an expanded scope of services (Alzira II) to include the area’s primary care centres, a longer duration of 15 years and a correspondingly higher capitation fee (key issue: paying for foregone “potential profits”, Sindic opinion negative).

Whereas the original capitation fee was indexed to consumer inflation, under the new contract the revised capitation fee was indexed to the overall health expenditures of CA Valencia.

The successful project turnaround has confirmed the viability of the “Alzira II model” consisting of “primary plus hospital care remunerated by a capitation fee”, and it has been replicated in five other hospitals in Valencia, elsewhere in Spain and in other countries.
4. Total Number of PPP Contracts

As of 2005, Spain had 15 health PPP projects, with accounted for 8.4% of total PPP project value. (Allard 2008). For the period 2004-11, the Spanish PPP market consisted of 20 hospitals, for a total of 7,000 beds, of which 11 hospitals included clinical services (*con bata blanca*) and 9 hospitals covered infrastructure and facility and support services only (*sin bata blanca*), plus medical equipment in the certain cases such as Burgos and Vigo (Acciona 2012). Since the establishment of the first (Alzira) concession model, other administrative concessions have been granted in Valencia: Torrevieja (2003), Denia (2004), Manises (2006) and Vinalapó (2006). Although no consolidated national health PPP list is available, there are at least two dozen health related PPPs in Spain, of varying scopes and durations. Besides Valencia, most other PPP hospitals have been developed in Madrid, with Valdemoro following the fully integrated “Alzira model” and other contracts limited to infrastructure and related services (PFI or Madrid model).

5. Models:

Spain has had a long tradition in various forms of public-private partnerships, such as “conciertos”, contracts between official regional health services and private providers, mutual health organizations, or administrative health concessions which include the management of health services. (PWC 2012).

Conciertos include out-contracting of testing, diagnostic and therapeutic procedures in order to relieve waiting lists. Some contracts cover an entire population area in areas with insufficient infrastructure. Noteworthy among others, Jimenez Diaz Foundation (Madrid), POVISA (Vigo), several hospitals in the Order of San Juan de Dios, several hospitals in Catalonia, etc..

Mutual health organizations cover about two million civil servants: MUFACE, MUGEJU and ISFAS. The financing is public and each year about 85% of the beneficiaries opt for private provision (through private insurers as Asisa Adeslas DKV and IMQ).

Administrative health concessions, which include the construction of the hospital and management of health and non-health services. As of 2012, there were seven such hospitals operating in Spain (5 in Valencia and 2 Madrid), Central Clinical Laboratory (Madrid), plus 2 new hospitals in Madrid (Móstoles and Collado) and a new radiotherapy unit in the Canaries. • The company Ribera Salud, the Capio group and private insurers (Adeslas Asisa Sanitas and DKV) have been the main private operators.

By taking overall responsibility for providing for the full health care needs based on capitation fees, the Alzira model used in Valencia is akin to an HMO – health maintenance organization. Other contractual models of varying scopes and durations are used elsewhere in Spain:

• PFI or administrative concession for construction and non-healthcare management (PFI model): In Spain this infrastructure-only model has been implemented in Madrid, Balearic Islands, Catalonia, Castilla-León and Galicia. These contracts go up to 28-32 years, remunerated mainly by rental fees.
Administrative concession for full health service provision, including primary care (Alzira model), implemented in Valencia and in one hospital in Madrid (Valdemoro), based on capitation payments. In Alzira profits were capped at 7.5% of turnover, with yields above this limit being returned to the public partner. Contract duration: 15-year contract, which can be extended to 20 years.

6. Payment System:

Under (both) the Alzira models, *Comunidad Valenciana* as payer pays an annual capitation fee (*best practices: capitation fee; patient freedom of choice, money follows the patient*). As a general principle in Spanish health care, *money follows the patient*, who has freedom of choice in selecting the health care provider. If a patient chooses not to use the designated hospital in his region, it must compensate the actual provider at 100% of the respective DRG. If a hospital treats patients from outside its zone, it receives 80% of the respective DRG (*focus attention on service local population, discourage adverse selection and unjustified transfer of patients*).

Under the original Alzira Model (hospital care only), the capitation fee was set at €204 in 1999, and indexed to inflation. Although no Public Sector Comparator was formally used, the fee proved to be too low (especially when compared to the capitation used at the time by MUFACE the public sector health mutual fund of €301) and to Valencia’s average per capita expenditures of €362 (Acerete 2011), which amounted to an aggressive under-pricing of 30 to 40%. The current capitation fee is indexed to the payer’s overall health spending and is about €670 - still about 25% below comparable average costs for *Comunidad Valenciana*.

The infrastructure and support services contracts are remunerated through rental payments.

7. Share of PPP contracts in total hospital investment plans  N/A

8. Value for money consideration on a macro level

In the recent past, C.A. Valenciana proved to be economically fragile and highly vulnerable to the bursting of the property bubble along Spain’s Mediterranean coast. It is the second most highly indebted of Spain’s regions after Castilla La Mancha. With debt equivalent to 25% of GDP and tax revenues reductions of over 30%, its sub-sovereign rating was cut to BB sub-investment grade in February 2012. It is also the region with the longest (884 days) delays in payments to the pharmaceutical companies (Maiquez, 20minutos.es, Jun 2012). The regional Government had also accumulated past due health sector liabilities of over €2.4 billion at the end 2011. There appear to be some calls for increases in the capitation fees, but the budget cuts required by the austerity measures are likely to impact the regional health budgets, which will have to shrink rather than increase (*key issue: test of compressibility of PPP liabilities in austerity scenario*).

The capitation fees paid to the PPP hospitals appear to have been consistently below Valencia’s per capita health costs. However, the reliance on the Government-controlled savings banks to provide both project equity and project debt can be seen, at least in retrospect, as a warning sign, especially after one of the savings bank sponsors failed in 2003 (clearly not the best...
Many of the PPPs developed in Spain across various sectors at the end of the past decade were instigated by regional governments and financed by Cajas or regional savings banks many of which are now insolvent (Solvere 2012), and which may have introduced a feedback loop in the risk allocation. Ultimately, since the health services are supported by tax revenues, health PPP projects are highly exposed to the (sub)sovereign credit risk of the public partner, in Spain as elsewhere.

9. Risk transfer models/results

Under the Alzira model of full services provision based on capitation payments, most of the operating risks were nominally to be transferred to the health care provider. However, the Ribera UTE is indirectly controlled by the Comunidad Valenciana and the original financing was provided by regional savings banks through parent sponsors, rather than project based, so much of the risk falls back on the public partner, and ultimate parent, as was demonstrated in the 2003 termination and retendering.

According to a recent study which analysed 45% (132 out of 295) acute hospitals of the Spanish SNS, those hospitals with “non-traditional forms of management” – including concessions but also public consortia – reported better performance in the relevant efficiency indicators. Further, privately run hospitals save 39% on supplies and report 37% higher activity levels with production cost 27% less than that of public hospitals under direct public management. (IASIST Nov 2012)

Although some stakeholders claim that this is achieved by reducing medical staff, the numbers show modest differences, 4.4 workers per bed in the non-traditional hospitals versus 4.7 workers per bed in the hospital managed directly by the SNS under public sector work rules. Considering the important of staff management issues in the provision of health care, transferring labour related risks is a critical success factor.

There are no reports of external dispute resolution events, such as arbitration panels.

10. Lower cost/person for the Government? It is generally reported that the full service capitation payments are between 20% and 26% below the average health costs of CA Valencia.

11. Room for innovative approaches

Given its plurality approach, Spain has implemented health PPPs with a variety of scopes and durations, but little ex-post evaluation has been produced. Some analysts point out that no one model is necessarily best, and that success depends less on the model itself and more on the rigour with which it is implemented and managed over time.

Considering the aging of the Spanish population, and the recent health reforms (under Royal Decree Law 6/2012), health spending is expected to continue increasing as a percentage of GDP, which puts a premium on financial sustainability. In effect, in the future, health related expenditures are expected to have a bigger budget impact than pension liabilities, which have already been moderated in Spain. (Circulo de Empresarios 2012)
12. Management of the PPP contracts

Administrative concession hospitals operate according to a rigid accountability arrangement and strict controls which preclude the hospital from selecting risks and patients. Day-to-day monitoring is done by a regional health ministry delegate, the Comisionado de la Consejeria de Sanidad in Valencia, who is present full time in the hospital for purposes of control and inspection. Approving the treatment of out-of-zone patients and ensuring accurate invoicing are also the responsibility of the Comisionado. (Saltman et al 2011).

In terms of labour relations, in the case of the Hospital de la Ribera de Alzira, about 30% of the staff chose to retain their SNS statute, and 70% of the staff are now contracted under private sector labour regulations. The two classes of staff have separate management lines and incentive schemes – the non-statutory personnel are managed by the hospital CEO, while the Comisionado manages the statutory staff (two parallel staff contractual arrangements has got to have some complications).

13. Experience positive/negative/Lessons learnt

Spain does not necessarily have the usual PPP transparency mechanisms found in certain other countries, such as public sector comparators, the publication of contracts, benchmarking of cost and performance, periodic market testing of services, evaluations, etc, so there is a very significant risk in relying on PPP models that opacity and information asymmetries may prevent the public sector from obtaining Value for Money (Allard 2009). According to a position recent paper by SESPAS (the health economics association), the advantages of adopting PPPs in the health sector “have not been demonstrated in practice” and “the models of administrative concession of full health services (Alzira Model) “present more shadows than light” (lack of transparency feeds opposition).

PPPs remain controversial in Spain, and the various experiments under way have been the subject of heated public debate. In 2010 there were parliamentary calls for an independent assessment of the Alzira model and for the definition of a general regulatory framework at national level, to define the public interest to be preserved as well as the type of partnerships recommended.(PWC 2012)

Some of the main lessons from health PPPs in Spain are:

- Regarding the performance of the Alzira full health service model based on a pre-determined capitation fee, in terms of guaranteeing access and coverage, quality, efficiency and budget sustainability, although most of the evidence is positive, the lack of independent evaluations restricts credibility and the potential for replication elsewhere;
- The intensive involvement of the official regional savings banks, directly and indirectly, both as PPP project sponsors and creditors, proved counter-productive as it internalized risks which PPPs are meant to externalize. In order to avoid this, it is essential that other project sponsors and creditors, such as the EIB, be prepared to carry out intensive project appraisal due diligence, and perhaps assume project risks rather than require payment guarantees;
- The collaborative rather than adversarial relationship between the public and the private partners in Valencia, and the legal provision for
maintaining the financial balance of the concessions which is common to concession law in both Portugal and Spain, may facilitate management of long term contracts which are by nature incomplete and prone to renegotiations. Despite the severity of the financial distress of Comunidad Valenciana, and the high 40% proportion of its budget spent on health, it doesn't appear that spending on the 20% of hospitals which are PPP contributed directly to its financial stress, since the capitation fees have been consistently below the average per capita health spending. For Spain, as for many ageing European countries, containing health costs will become more and more critical in the coming future, so the real test of the health PPPs will be the ability to compress costs to the public partner under the complex contractual arrangements, especially in times of budget austerity.

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PPP Project Case Study: “Alzira” (integrated healthcare delivery)

1. Introduction

A review of the specific PPP model which was introduced in the Alzira health “Area” of Valencia “Region” can only be understood in the light of the arrangements at the level of the national health system. This project case study should thus be read in conjunction with the accompanying Spain country case study in this Report. In summary, there has been a devolution from 1986 of most aspects of healthcare from the national government to the 17 Autonomous Communes (AC), allowing a diversity in delivery of healthcare to appear. The national ministry of health now retains only oversight functions. Further, dating from the Abril Commission of 1991, there was awareness of lack of efficiency in health delivery services, and this led on inter alia to legislation in 1994 and 1997 allowing for private sector engagement in delivery of healthcare. Spain has a “national health service” (not social health insurance) system, and usually with General Practitioners who act as gatekeepers to access higher levels of care. Within the ACs, the local areas normally cover a catchment population of 200-250000 people, which in round numbers will justify an acute hospital. The country has experimented with various PPP models in health services provision, and among them Valencia has used the most far-reaching variant, introduced first in the Alzira area, with delivery of both secondary hospital and primary/community care within an integrated framework.

It is worth noting that “Alzira” has become a portmanteau term in healthcare PPP. The underlying model has been used by the main originating company, Ribera Salud (RS), in four other areas in Valencia AC - one of which (Manises) has subsequently been sold by the parent group to an incoming British operator. As other outsourcing activities, there is also an MRI unit developed and managed by RS for the Region, and a health services IT company. In the Madrid AC, RS is a participant in a central clinical laboratory, and it has also developed an Alzira-style health area concession for one hospital, though this has also subsequently been sold (see Table 1). Shareholdings by RS in these various projects vary, from 65% down to 14.5%. For the purpose of this case study, references are primarily to the Alzira area including the La Ribera Hospital (RS: 45%), though most of what is written below applies to the other three current RS healthcare delivery franchises, and for that matter the two sold-off concessions. For an overview and limited assessment of the Alzira model, see http://www.nhsconfed.org/Publications/reports/Pages/integrated-healthcare.aspx (accessed 21/03/2013).

Table A.7.3.1 Overview of Ribera Salud healthcare concessions

<table>
<thead>
<tr>
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<th>Number of beds</th>
<th>Population served (000)</th>
<th>Investment (€m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Universitario de la Ribera (Alzira)</td>
<td>300</td>
<td>250</td>
<td>140</td>
</tr>
<tr>
<td>Torrevieja</td>
<td>264</td>
<td>180</td>
<td>90</td>
</tr>
<tr>
<td>Denia</td>
<td>222</td>
<td>160</td>
<td>97</td>
</tr>
<tr>
<td>Vinalopó</td>
<td>212</td>
<td>150</td>
<td>146</td>
</tr>
</tbody>
</table>
2. Type of PPP, structure or arrangement, services to be provided

A particularity of the Alzira concession is that it changed scope, after an initial hospital-only phase. Alzira Phase 1 involved finance, design, construction and operation of a medium-sized acute general hospital, as a full concession. That is, in other countries most hospital PPPs involved effectively a lease for hospital buildings and equipment bundled with Facilities Management for a period (accommodation-only, “Private Finance Initiative”, PFI). The Alzira hospital, achieved in the fast time-frame of 1997-1999, instead involved the physical infrastructure as with PFI, but additionally the medical services. An innovation for Europe was that the revenues for the operating company were to consist not of fees for availability and performance (as with PFI) or for activity (via e.g. DRG prices or some other fee for service) but rather a capitation payment per member of the area population served.1 If the company could provide hospital services for the average citizen on a full-life basis cheaper than the capitation fee, it would make a profit.

For reasons that have never been made very clear, the Phase 1 model was seen to be unviable very quickly. The AC health department (Agencia Valenciana de Salud, AVdS) chose not to abrogate the contract, but rather renegotiated it with a new contract from March 2003 to incorporate primary care services, where existing community staff had a choice to retain their public service status or move over to company contracts (as a new hospital, La Ribera had anyway started with company staff). This new integrated Phase 2 local healthcare model is the one replicated in the other health areas listed in Table 1 above. The La Ribera Alzira organisation and its homologues in other areas have significant influence over the choice of treatment for patients presenting in primary care. The GP gatekeeping function, suspended to build population credibility in the early days of the Alzira integrated system, was subsequently restored in full and is indeed an essential part of the patient management arrangements.

3. Design of the PPP and award procedure

The original concession special company was called Ribera Salud-Unión Temporal de Empresas (RS-UTE). It was the only bidder for the contract, the first ever under Ley 15/1997 in Spain, and health officials have said that the deal was very tightly priced. For example, hospital services for Central Spanish civil servants were held to cost €301 p.c. and across the Valencia AC as a whole the existing costs were €362/head, so the base price for the contract (see below) was aggressive. The Valencia AC government was led by the right-wing Partido Popular. Alzira was chosen for the experiment by

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2 One argument is that hospitalisation rates were higher than anticipated, and the hospital operating company had no means of influencing these. It is also possible that the Phase 1 contract was simply mispriced, perhaps including in relationship to CPI indexation given that healthcare costs rise at a higher rate.
Valencia because the area had no existing hospital and had been promised one for some years.

4. Source of financing

Alzira Hospital was developed by a consortium consisting of the medical insurer Adeslas (51%)\(^3\), RS (45%) and the construction companies Dragados and Lubasa (2% each). Ribera Salud itself in turn had been established with equal shares by the three (public) regional savings banks Bancaja, CAM and Caixa-Carlet. It was apparently intended to be a financial, not operating, investor, though this orientation has changed in succeeding years. Caixa-Carlet failed, apparently since the investment it tried to make was excessive for such a small bank, and its responsibilities were assumed by Bancaja.

For part of the investment in the hospital, RS-UTE shareholders took loans (RS €19 m., Adeslas probably €25 m.) from Ribera Salud’s two parent banks. It is perhaps slightly unusual for the shareholders, rather than the project SPV, to take project loans. Assuming these project-dedicated debt numbers are correct, and no other debt exists, the source of the remaining €17 m. capital investment for the hospital’s construction - and any work-in-progress funding - is not clear. The financial structure seems to emphasise the close relationships, indeed almost an identity, between the savings banks and the project itself at the initiation of the project. Since the savings banks are state entities under political control, quite possibly the majority of both the debt and the equity for the project were public. This is different from, say, PFI, where both sources would be very largely private (investment company equity and commercial bank loans). In other words, Alzira (RS-UTE) was at that stage a mixed PPP, perhaps more of a public trust hospital in some ways than a truly independent private entity.

5. Declared investment costs

The hospital was recorded in RS-UTE’s balance sheet as €60.3 m. The regional audit office of Valencia quotes €63.2 m. Either way, for a three hundred bed hospital, this appears to be an acceptable capital expenditure\(^4\) and, as mentioned above, the build time was very quick. From the inauguration of RS-UTE Phase 2, there has been a publicly-declared commitment for investment for primary and community care facilities of €68-78 m. (numbers vary), though this is for the period of the concession so although doubtless front-loaded presumably did not all take place in the years immediately after 2003.

6. Contractual framework, risk allocation, governance

Alzira Phase 1 was expected to last 10 years, with an extension to 15 years envisaged. Phase 2 was signed for 15 years, this time with an extension to 20 years.

\(^3\) Adeslas is 50% controlled by Aguas de Barcelona, in turn 90% jointly owned by Suez of France and an investment vehicle owned by the savings bank (caja) La Caixa. Mederic, a French insurance company, has a 25% share in Adeslas. Adeslas owns some private clinics in Spain and Latin America.

One of the obvious points to make is that - irrespective of whether there was ever specific risk-sharing in the contract between AVdS and La Ribera, including possibly any formal risk matrix splitting responsibilities between the public and private sectors - when the first contract proved unviable, the public sector effectively bailed out the project vehicle. In this context, the Valencia AC government paid a termination sum of €69.3 m. (€43.3 for purchase of written-down assets, and €26 m. for compensation for lost profit, which seems odd if in fact – by hypothesis - the contract was not in fact profitable). The partners of RS-UTE then bought the new concession, RS-UTE2, at a price of €72 m., which it is possible that other bidders would have been unwilling to pay. In other senses, the risks fall predominantly on the concession, since it is responsible for delivery of or payment for all healthcare required by members of the resident population. Without sight of the PPP contract, it is impossible to say what force majeure or other provisions exist.

A key point of the governance of the PPP is that there is a government regulator (Comisionado de la Consejeria de Sanidad) who is placed within the hospital. This office has some responsibility for those staff which remain public employees; oversees the Key Performance Indicators attached to the PPP contract (quality & safety, waiting times & clinical activity, clinical outcomes including immunisation & mortality rates, patient experience including satisfaction & complaints handled on time); approves the treatment of out-of-area patients; and ensures accurate invoicing.

7. Payment mechanism, cost per patient

The underlying principle of the payment mechanism across much of the Spanish healthcare system is “money follows the patient”. In Alzira, the capitation fee originally set for the hospital-only Phase 1 model (€204 in 1999) was to be escalated for the contract duration at the Consumer Price Index. At the inauguration of the Phase 2 contract, the capitation fee for RS-UTE2 was revised to €379, to account for the increased costs of running primary/community care, including the extra investment required in community health centres. Indexation was changed to be aligned with the annual change in the budget for healthcare for the AC, a higher number than CPI given that health expenditures typically rise at above background inflation. As long as the cost to service La Ribera area healthcare started lower than those of the public areas within the Valencia Region, which published information suggests strongly that it did (by about 20-25%), the cost advantage to the AC of obtaining healthcare services from the PPP rather than via public concessionaires will - arithmetically - persist during the concession period. The capitation fee for Alzira is currently around €620. Note that the capitation fee paid by AVdS excludes certain items – oxygen, patient transport, prostheses and out-patient pharmacy. As far as can be ascertained - nothing has ever been suggested to the contrary, but the AC Government has not been explicit - the comparable fees for public areas in the AC are calculated on the same basis as this.

In order to assuage public concern over the apparent “privatisation” of the area health service, safeguards were put in place to mitigate incentives for the concession holder to divert resources away from quality care for the local population. Among these, patients who choose to go out-of-area for whatever reason (including of course dissatisfaction with the quality in La
Ribera) are paid for by RS-UTE2 at the other area’s DRG price for the intervention concerned as a transfer: a deadweight loss to the company. Further, patients from out-of-area who come to the La Ribera hospital are paid for at hospital cost minus around 80%; it is one of the tasks of the Comisianado to monitor that the contract specifications on prices for the different classes of patient are adhered to.

8. Average hospital stay, surgery delay

Table A.7.3.2 Waiting times and other parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>PPP*</th>
<th>Valencia AC hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>First external consultation delay (days)</td>
<td>42</td>
<td>69</td>
</tr>
<tr>
<td>Average surgery delay (days)</td>
<td>32</td>
<td>60-90</td>
</tr>
<tr>
<td>CT scan delay (days)</td>
<td>24</td>
<td>90-120</td>
</tr>
<tr>
<td>MRI delay (days)</td>
<td>25</td>
<td>90-120</td>
</tr>
<tr>
<td>Rate of Caesarean deliveries (%)</td>
<td>19.5</td>
<td>25.0</td>
</tr>
<tr>
<td>Average Length of Stay (days)</td>
<td>4.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Readmission within 3 days (‰)</td>
<td>2.0</td>
<td>6.1</td>
</tr>
</tbody>
</table>

* Torrevieja and Vinalopó, “recent”.

Available, though slightly older, statistics for the ensemble of RS hospitals show similar results – for example, ALS at 4.5 days. One of the areas that the company has focused on is handling emergency patients, where the waiting time is less than 60 minutes compared with 131 minutes in Valencia hospitals on average. Since statistics like those reported in Table 2 are included in the KPIs of the PPP contracts and monitored by the Commissioners, it is likely that they are accurate.

9. Patient and staff satisfaction

As part of its operations, the RS companies collect patient satisfaction statistics. These cover all recent years, and among other aspects surgery, medicine, obstetrics, paediatrics, non-invasive surgery, emergency, patient assistance and information, and external consultation. There is a number of indices selected for each category (e.g. explanation of risks of anaesthesia, room ambient temperature, respect for intimacy, cleanliness of the facilities...); around 250 in all. They are compared against the average for the AC, and within that the minima and maxima for the latest year. Some elements are given in Table 3 below:

Table A.7.3.3 Global satisfaction measures, La Ribera (Alzira) 2009-2011

<table>
<thead>
<tr>
<th>La Ribera, ratings</th>
<th>AVdS, ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>8.5 8.6 8.6 8.0 9.2</td>
</tr>
<tr>
<td>Medicine</td>
<td>8.5 8.5 8.5 7.8 9.4</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>8.5 8.6 8.8 8.3 9.6</td>
</tr>
</tbody>
</table>
“Satisfaction” numbers are not always reliable; patients like the mere fact of having their local hospital available. However, that would also be true of the local, publicly-run hospitals in Valencia. By and large, the “% satisfied” indices for La Ribera are high; ratings do not show any evidence of a particular trend; they are higher than AVdS as a whole, for most specialties, most of the time; and are towards the upper end of the range for the Region (and it is possible anyway that the top-scoring hospitals are others within the Group).

Medical staff in Valencia public hospitals are usually on a base salary + bonus system. The RS hospital employees have something similar, but with a lower base salary and according to the company the possibility—subject to performance—of a higher bonus. The company maintains that the gross salary is on average higher than in the public sector. Although there has been a small amount of staff dissatisfaction (a strike at one stage), there is no serious evidence that staff do not accept the work ethic and arrangements. There may be concern before the model is introduced to an area, but each of the Valencia PPP health systems appears to be working satisfactorily.

### 10. Lessons learnt, published reviews

For the Region, the financial advantages which seem to be drawn from the “Alzira” model are:

- financial savings and predictability (liability is capped at the base capitation plus indexation, and this should always result in a payment lower than that required by the public concessions);
- capital cost for facilities is, probably legitimately, off balance-sheet, given that the whole of the health sector for the La Ribera area has been privatised;
- a substantial risk transfer (though c.f. the collapse of Phase 1 and RS-UTE1’s rescue by the public sector).

On the other hand, it is not clear whether the concept of “regulatory capture” could apply here.

For the health system, there is:

- tight control of medical pathways, which should avoid inappropriate hospitalisation (through pervasive and appropriate use of ICT between primary and secondary settings, joint manning with hospital consultants in primary care, protocols for referral out of primary care and for “frequent flyers”);
- good medical service quality.

For the patient, there seems to be:

- a patient-friendly environment;
- modern hospitals with attractive in-patient rooms;
• short waiting lists and waiting times (in OP, elective, and emergency department).

There have been two major reviews published by a group of Spanish and British academics on the “Alzira” model, from a largely accounting basis\(^5\). These two papers are largely critical, with the negative reaction centred on the lack of published information, and the unhealthy nature of the close relationship between the AVdS/the cajas/RS. The authors seem, however, to want it both ways – that Alzira is cheap and unprofitable, and that it is an exploitation of the public purse. Further, their methodology is designed to prove failure, not investigate the possibility of it: “Our framework is based on the work of Froud et al. (2006) who use a ‘narrative and numbers’ approach to highlight discrepancies between management narratives, performative initiatives and business strategy”. Note that Acerete et al recreated the Alzira/La Ribera company accounts by pro-rating them to the RS parent, but these calculations have to be incorrect since RS owns shares in several concessions, at varying participation rates; so the numbers on which they partly base their critique may well not be accurate.

The point that is raised by Acerete et al concerning the historical interdependence of the company with the political system is, however, well-made. The cajas across Spain have evidently been intrinsic to the fiscal crisis in the country, with opaque investments often driven by political motives. Three such savings institutions have been central to the Alzira arrangements, with uncertain contributions to the equity capital sources of RS, and debt offered on what seem to have been preferentially low rates (according to Acerete et al, lower than sovereign borrowing costs). Whereas the proof of the pudding is in the eating, there has to be some doubt as to how the cooking took place.

Case Study: France

Public – Private Partnerships in the French healthcare

1. PPP Law/Legal Framework/PPP Policy in Health

France is known for its’ long tradition of concession arrangements that grew significantly over the second half of the 20th century to place France among the most PPP prominent countries in the world (EPEC, 2012). In the health sector though PPPs had to wait important reforms allowing tenders of design, construction and maintenance aspects to be conducted by private providers and permit deferred payment mechanisms. These are among others:

Public Health Code :
- Law n° 2003-850 of September 2003 on simplification of the structure and the functioning of health system in France;
- Law n° 2004-559 of June 2004 on partnership contracts;
- Law n° 2004-806 on public health policy:
  - Hospital leasing (Bail Emphytéotique Hospitalier - BEH) is governed by articles L. 6148-1 to 6148-6 and R. 6148-1 to R. 6148-3 of the Public Health Code (CSP);
  - Administrative leasing (Bail Emphytéotique Administrative - BEA) is governed by Article L. 315-9 of the CASF (Code of Social action and families) and by Article L.1311-2 of the General Code for Territorial entities.

2. Centralised PPP Unit on health at country level/ Decentralised decision making (devolved/decentralized approach used for management of PPP)

At the national level the Ministry of health is supported by MNIAH (Mission nationale d’appui à l’investissement hospitalier) currently submerged under ANAP (Agence Nationale d’Appui à la Performance des établissements de santé et médico-sociaux)

At the Regional level, PPPs are under the responsibility of regional hospitalization agency (ARH -Agence Régionale d’hospitalisation) incorporated in the regional public health authority (agence régionale de la santé - ARS)

As per article L6113-10 of the Public Health Code (http://www.anap.fr/fileadmin/user_upload/01-ANAP/historique/ConventionConstitutiveANAP.pdf) the main tasks of ANAP are among others:
- The development and dissemination of tools and services to help healthcare facilities improve their performance and quality of services;
- The support and assistance for restructuring, reconstructions and property management;
- Evaluation, audit and expertise of hospital projects especially in real estate and information systems;
- The control and conduct audits on the performance of healthcare facilities;
- Support to regional health agencies in their mission operational control and improved health facility performance;
- The support of the central government in its task of strategic management of the provision of healthcare and medical services. Therefore ANAP is responsible for technical supervision and support to the ARHs and public healthcare institutions (EPSs) from inception of individual schemes onwards and is responsible for the development of legal and financial framework. Thus parallel to the monitoring and control investment plans ANAP (or previously MAINH) has developed various methodological tools: a guide to PPP implementation (BEH guide), hospital revitalization guide, observatory hospital construction.

On its part, ARS was set up in bid rationalize the provision of healthcare services. It is responsible for policy implementation regarding all public health services. It ensures and monitors compliance with the rules on behalf of the central government (Ministry of health). It is in charge of authorizing the establishment and operation of all health facilities and health services and participates in the control of these institutions.

3. First PPP Contract: (year, name)

Following the legal framework the 1st PPP project was signed in 2005: Douai Logipôle Hospital signed - 05/09/2005. The project had the value € 30 millions for design, build, finance and operation of a logistical support platform (logipole) at the Douai Hospital.

In the same year (2005) the ophthalmological hospital Quinze Vingts in Paris followed and soon after were PPPs for:

- Centre hospitalier universitaire de Caen;
- Centre hospitalier du Sud Francilien at Corbeil-Essonnes;
- Centre hospitalier universitaire de Rennes;
- Centre les Tilleries at Besançon.

4. Total Number of PPP Contracts

Under the framework of Plan Hôpital 2007, the Ministry of Health launched a national call for project proposals from hospitals. 35 proposals were submitted in 2003 of which 20 were selected following discussions with the MAINH. First contracts were signed in 2005. A second wave of PPP projects was launched in 2006 (not only falling under Plan Hôpital 2007) among which about a dozen used the Partnership contracts –PC rather than BEH. By 2012 about 50 contracts (40 BEH and 10 PC) had been signed of which the construction of 35 hospitals were completed and already at the operational phase (EPEC, 2012).

5. Model

Since PPPs were introduced most of awarded contracts are related to real estates, most case PPPs fall under DBFO (design, build, finance, operate) involving infrastructure, Electronic medical records and Hospital Management as well as logistics. A number of PPPs was concluded as leasing and partnership contracts. It is worth noting that in France the term ‘public – private partnership’ primarily refers to contracts based on fee payment by a public authority while contract based on revenue operations are known as ‘concessions’ or ‘delegations de service public’.

The diagram below gives an overview of the two widely used PPP models in French healthcare sector:
The BEH goes with an inseparable contract (*convention non détachable*) which specifies the conditions under which the facilities and any related equipment are to be made available to the EPS (Public health facilities) and sets out the basis on which the private partner is to be remunerated for providing the serviced facilities.

The BEH was largely inspired from the UK PFI health experience. The PPP agreements envisaged that the design, building and maintenance of the buildings as well as a series of basic nonmedical services would be provided by the private operators.

6. Contract duration

The initial duration for energy and logistical supply contracts has been around 15 years while PPPs involving construction (DBFO) range between 20 and 35 years. However, the legal framework makes it possible PPPs contracts to have long term concessions up to 99 years. During the DBFO contract period the private partner retains property rights over the facility.

7. Payment System

The PPP guide distinguishes work contracts from work concessions. For concessions the dealer is paid via awarding him *free exploitation/operation rights*. Instead, a contractor does not receive an award. In this case the public health institution pays *rental fee to the contractor*. There is also a mechanism of *guaranteed minimum service charge* under which the government guarantees that a regular payment to the private investor/operator during the operational phase will not fall short below a certain threshold regardless of the provider performance (EPEC, 2011). To add on that ANAP affirms that all payments are part for the PPP contractual agreements and that the amounts to be paid are not necessary tied to initial estimates.

8. Share of PPP contracts in total hospital investment plans

Some individual contracts suggest that PPPs have involved big investments. As example in 2006 BEH for *Centre hospitalier Sud-Francilien* was € 344 million while *Hôpital de Caen* was € 100 million. While there no information is
available as to the exact figures of PPP shares in total investment plans the evaluation of *Plan Hôpital 2007* estimated that at least 15% of the required investment had been carried out through PPPs (MNAIH, 2009). Even though there is no accurate data the share PPP contracts in the total hospital investment between 2004 and 2010 was estimated 2.5 billion. The most recent data from EPEC (May 2012) even suggest that PPP contracts have totaled up to €4.7 billions.

9. Value for money consideration on a macro level

There is currently no accurate data allowing an assessment of PPP value for money in the French healthcare. However, even if there is no reference to measure the profitability or efficiency of PPP there is enough evident to prove that these PPPs are large, complex and long term projects which have the capacity to allocate appropriate significant risks to the private sector. So far all partnership contracts have optimal combination of quantity, quality, features and price that is not likely to be achieved through other project models.

10. Results of the audit by national auditing chambers

All PPPs are subject to period audits and inspection. Currently however there is no data from specific audits. However, it should be admitted that ANAP does not conduct audits or performance reviews of individual PPPs. It intervention is more oriented to the initial stages and preliminary assessments. As far as individual cases are concerned its worthy noting that there has been reports in the French media on the Sud-Francilien Hospital Centre project where by disputes between the Hospital and Eiffage group caused up to one year delay of activities. Initially construction costs were estimated at 344 million euros, at the expense of the provider Eiffage group while for 30 years the hospital would annually pay €32 million to the group. In the end after these disputes the contract negotiations resulted in annual pay of €38.8 million, almost €1.2 billion for total payment. This has project been tagged as a huge money by critics and the Court of Auditors which estimated that if classic mechanisms (such as borrowing money for public project financing) were used the project would not have exceed €760 million (Cours des comptes, 2010). Nevertheless, there are many more other PPP cases where
contract may rather have had mutual benefits and this case should only be addressed holistically for lessons learned toward future PPP initiatives.

11. Risk transfer models/results

In the French context risk allocation is a result of function of commercial negotiations based on concession agreements principles. The private partner bears the risk of construction, provision (availability) risk and demand (utilisation). In the same context the public institution gives guarantees for asset recovery clauses at the end/termination of the contract. For financial asset recovery purposes the contractor may claim compensation for increased costs affecting financial equilibrium of the contract under force majeure and unforeseen risks not due to the provider’s inattention.

Source: EPEC, May 2011, p 16.

12. Management of the PPP contracts

The management of the PPP projects during the project cycle is the responsibility of the ministry of health (supported by ANAP), public health facilities (EPS) and local government entities (ARS).

ANAP is responsible for setting guidelines and management tools on which ARS supervises the implementation by EPS. Besides, ARS participates in PPP audits conducted by ANAP.

In the current context PPP contract involve long process of negotiations and renegotiations making every PPP very specific contract.

13. Experience positive/negative/Lessons learnt

- The French experience with healthcare PPP projects suggests that the PPPs are well-suited for projects that are not subject to big changes over time, such as energy and logistics centers. Hospital architectural
and functional adaptations seem hardly compatible with the funding rules of PPP contracts;
- Big companies and their subsidiaries have won most of the PPP contracts against small and medium enterprises;
- In some cases, relationship between the public and the private partners deteriorated and projects faced delays due to disputes between the parties (case of Eiffage group for the Sud-Francilien Hospital Centre project);
- Critics point out the lack of transparency for contract negotiations or renegotiations. In additions it is believed that in the PPP framework public healthcare is reduced into pure management accounting;
- Foreign ownership in relation to public services in France is a very sensitive issue. In this context non-French companies are likely face discrimination to participate in the local PPP markets. There though room for encouraging foreign company participation in issues such as information systems, electronic medical records, energy production and logistics.

14. References

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1. Background information

CH Henri Laborit, a specialized hospital for mental health employs about 1250 workers and ensuring follow-up of almost 18 000 patients. It has 303 beds for inpatient psychiatric care, 61 places for day care. The site covered is 41ha and has 13 buildings, including 7 of hospitalization, 3 buildings for ambulatory care and 3 buildings for administration. With greenhouse gas emissions of about 8795 tonnes equivalent in CO2, in 2011, the hospital greenhouse gas emissions is higher than what a town of 880 inhabitants produces.

French Public Health Code makes it possible for design, construction, maintenance and operation aspects to be conducted by private providers allowing deferred payment mechanisms for benefiting institions. Under the health sector ANAP (Agence Nationale d’Appui à la Performance des établissements de santé et médico-sociaux) is responsible for technical supervision and support to the ARHs and public healthcare institutions from inception of individual schemes onwards. It is as well responsible for the development of legal and financial framework in liaison with MAPPP (Mission d’appui aux partenariats public-privé under the Ministry of economy) which is the national PPP authority.

Prior to the introduction of energy performance PPP contract the hospital was facing a gradual depletion of fossil fuels at the national and global level (thus higher energy costs) which triggered the ideas to move to biomass energy and enhancement homegrown wood energy. Besides, to meet its rising energy consumption needs the hospital would require investments up to 7MW installed capacity of which operating costs were increasingly high. The only realistic solution was to mitigate investment by using a heating network and biomass boiler. Thanks to this mechanism it was possible via the French Environment and Energy Management Agency (ADEME) to have access to regional grants regional and significant subsidies via the ‘Fonds chaleur’ available to all initiatives with significant reduction in greenhouse emissions.

2. Type of PPP, arrangement and service commitments

Type of contract

This a partnership contract on energy performance (European Directive 2006/32/EC) by which COFELY (GDF-Suez Consortium) committed to design, set up, finance, maintain and operate a heating network supplied by a wood boiler and, as accessory, to provide most of the hospital wards with solar thermal for the production of hot water, and to perform insulation work in buildings for more energy efficiency.

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7 At the Regional level, PPPs are under the responsibility of regional hospitalization agency (ARH - Agence Régionale d’hospitalisation) incorporated in the regional public health authority (agence régionale de la santé - ARS).
PPP tender process at CH Henri Laborit

This energy performance contract is the first of its kind for hospitals in France. Therefore in respect to procedures the process was complex for all interested parties (CH Henri Laborit, the private partner and public authorities). However this PPP-contract on energy performance was considered as the only tool to seen as reliable for linking contractual commitments and investment performance. It required up to two years complete all necessary arrangements.

Initial assessment was supervised by experts from MAPPP before launching the tender process. The contract was concluded with prior consultations involving the Regional Health Agency (ARS).

At the beginning of the process (2008) the hospital presented the project to the ADEME to ensure that opting for a private operator would not penalize the hospital in regards to obtaining grants attached to any biomass and heating network projects. In 2009 a project management expertise (AMO⁸) was outsourced for technical, legal and financial issues. A feasibility study done by the AMO confirmed the technical interests of the operation, especially considering the insulation of buildings classified as inefficient in energy audits carried out by the help. The assessment of legal and financial feasibility took into consideration the operation complexity and after weighing benefits and constraints in concluded in favor of a PPP contract against other possible solutions.

During that time energy efficiency contracts were not well known. Thus it was very difficult for the hospital to explain to regulatory authorities and convince them on the reasons why the hospital should use a partnership agreement for such an investment. Besides, a changing hospital legal framework introduced new key roles/players in public health PPP (MPPP, MAINH, ARS). The last difficulty was the uncertainty over ADEME subsidies, their sustainability and grant awarding rules.

The tender process (January-March 2010) resulted in 3 candidates (Dalkia, COFELY and Idex) being invited to submit their offers in July 2010 but only Dalkia and COFELY carried on the process. The next steps were marked by competitive dialogue between the hospital and bidders and on the basis of the documents (forward-looking proposals and interim summaries) between September 2010 and January 2011, before candidates are invited to submit their final tenders for the March 21, 2011 on the basis of the originally intended project. In the end COFELY retained as the best offer based on the selection criteria (technical proposal 25%, overall cost of services 30%, performance targets 30%, commitment to outsource parts of the contract to SMEs 5% and level of risk-taking 10%).

3. Funding mechanisms

The funding is exclusively private: COFELY financed a total of € 2,609,023 (tax excluded) against € 674,040 financed by the Hospital for insulation work and solar thermal systems. Nonetheless, as a biomass project was concerned, the private partner received substantial financial assistance under the ‘Fonds chaleur’. In the end 48.8% of financing is covered by government. The contract is signed for 20 years.

⁸ AMO=Assistants en Maîtrise d’Ouvrage.
4. Commitments and risk sharing

During the inception phase hospital needs were refined and both parties conclude deals on keeping or replacing existing boilers, incorporating the boiler residual value, extra buildings, etc. into the contract. As the hospital not only remains the client but also financially contributes for solar thermal and insulation work it directly benefits from associated grants (*Fonds chaleur*) and power saving certificates (EEC). The contract takes into consideration necessary progress and leaves room for the Hospital to continue its own energy improvement policy. As a performance based contract almost all risks are borne on the private partner. Indeed during the construction phase, the risk is borne entirely by the private partner, which must ensure parallel conduct and operation of existing facilities, contractual terms and market heating existing contract. In fact COFELY has to meet up to 4060 MWh by wood energy and produced up 6674 m3 hot water in regards to the hospital target performance (88% energy wood) which corresponds to 91% in seasons requiring heating, a production of at least 30% of energy through solar and a 24% reduction in energy requirements heating for buildings that received insulation work, and reducing emissions of greenhouse gas emissions by about 1000 tonnes of CO2 (including 720 due to renovations and 280 biomass and solar thermal). The energy mix allows the hospital to control its costs in the medium term. In case of increase or decrease in consumption, the contract provides for a sharing of asymmetric incremental/savings. If one or more of these commitments is not met, COFELY will be penalized on the remuneration. The contract also provides some fixed penalties in addition to the financial penalties.

On its part CH Henri Laborit pays a financial rent for the investment, a compensation of infrastructure maintenance and upgrade expenses, a compensation of energy mix and compensation contract management expense.

5. Linking PPP to payment mechanism, cost per patient.

At CH Henri Laborit and generally in Franche different pricing and payment modalities apply to patients covered by community health insurance (*mutuelles*) and CPAM *Caisse Primaire d’Assurance Maladie*. Pricing is determined by the ARS and covers all the expenses incurred by the hospital during the patient's stay and vary according to different factors: hospital admission vs. day care, adulthood vs childhood.... This is the same all public health facilities. As far as fees are concerned it should be mention that at CH Henri Laborit consultation is provided free of charge.

Table 1: Fees rates at CH Henri Laborit

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalisation_Adult</td>
<td>296.00</td>
</tr>
<tr>
<td>Hospitalisation_Child</td>
<td>592.00</td>
</tr>
<tr>
<td>Family Therapy_Adult</td>
<td>79.00</td>
</tr>
<tr>
<td>Family Therapy_Child</td>
<td>86.00</td>
</tr>
<tr>
<td>Day care_Adult</td>
<td>291.00</td>
</tr>
<tr>
<td>Day care_Child</td>
<td>448.00</td>
</tr>
<tr>
<td>Half day_Adult</td>
<td>218.00</td>
</tr>
<tr>
<td>Night care_Child</td>
<td>165.00</td>
</tr>
<tr>
<td>Daily rate 2011 (forfeit)</td>
<td>13.50</td>
</tr>
</tbody>
</table>
The rate is usually the responsibility of the patient and based on which insurance the patient has reimbursement can vary. Often CPAM cover 80%, and the remaining (co-payment) 20% is borne by the patient or paid by the Mutuelles to which subscribes the patient. Care is provided 100% with no extra charge to all cases referred by physicians but only after approval by the CPAM. Hospital stays exceeding 30 days are covered at 100% by CPAM. But, if the patient stops the hospitalization after this period and returns home, care afterwards will be consistent with the general pattern (80% and 20% co-payment).

As far as PPP is concerned at the moment there is no clear link between this PPP contract on energy efficiency and patient fees/cost. In the future though it can be suggest to use hospital cost reductions on energy on a per the per capita extrapolation even if payments for care is only bound to official rate provided by the regional health authorities.

6. Linking energy efficiency PPP with quality of services

Average length of stay at CH Henri Laborit

According to the hospital management the average length of stay is around 12 days. However this can considerably vary from one department to another.

Table 2: Average length of stay in hospitals (selected European countries)

<table>
<thead>
<tr>
<th>Country</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>43,5</td>
<td>42,6</td>
<td>44,1</td>
<td>41,4</td>
<td>43,6</td>
<td>39,9</td>
</tr>
<tr>
<td>France</td>
<td>6,5</td>
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As HAS observed in its assessment CH Henri Laborit effectively participates in the compilation of all data as indicated by health authorities. In bid to keep high quality services the hospital follow certain steps such as developing target indicators, dashboards and putting in place a steering structure for the management. In addition to that, Risk Management function is clearly defined and the hospital mobilizes necessary skills and competences to meet risk management objectives. Risk mapping professionals at the hospital directly interact with all hospital users in bid to identify all necessary measures in holistic quality approach. The hospital has formalized and disseminated rules and regulations for patient record management (record keeping and access to the files) and has clearly indicated authorized officers on every case. The assessment shows that with 95% confidence interval all patient care fully complies with this indicator. Currently the hospital ensures timely file communication and has made them accessible 24/7 for internal use. For external use patient files are accessible during working hours and on the weekend they can be issued within a maximum of 48 hours. This applies to all files under 2 years. According to the November accreditation report patient record management is evaluated against clear and measureable indicators and its results lead to necessary improvements. Beyond as the hospital aims at patient/client satisfaction it has put in place a mechanism to continuously collect user expectations via annual satisfaction surveys by a questionnaire. In addition, all complaints and claims are directly answered by respective units and patient views are taken into account when developing projects.

Figure 1: la qualité de l’offre de soins au CH Henri Laborit

While it is understandable that engaging with a performance contract may have greatly contributed to quality indicators an in-depth assessment would be needed to clearly establish the extent to which the current PPP contract contributes to the overall hospital services.

7. Lessons learnt and conclusions

The partnership agreement is a form of public-private partnership broadly considered as legal and financial arrangements involving public and the private sector for the implementation of services and / or infrastructure or
works of public utility. The case of CH Henri Laborit on energy efficiency has been viewed as the best option to alleviate the financial burden of energy needs by spreading its costs over a long period (20 years), to the share risk and base remuneration schemes on performance commitments. Initial assessments have already indicated that this PPP offers greater advantages than what public project management (MOP_Maitrise d'Ouvrage) would have given.

Given that this 20 year contract started last year at the moment there is not yet any completed audit/assessment of that could have reliable data to assess the operator’s performance. Nevertheless, even if it is still too early to measure all the benefits of this PPP contract it is expect that this arrangement will enable the hospital to shorten the implementation period (seven months shorter and nearly 5% off the costs) compared to the MOP, as well as to balance its transactions in less than nine years. With energy saving and related cost reductions the fees paid by the hospital will gradually decrease with payback period of eight years on investment (about € 3.8 million return on investment). Indeed already by now a comparison of 2011 and 2012 fiscal exercises prove that on the same amount paid by the hospital in 2011 only for fuel and maintenance the hospital is now getting much more than that: fuel, maintenance, rent re-payment and major investment in equipment with no added costs. The level of satisfaction for the hospital manager is very high. Thus, the CH Henri Laborit advocates that PPP is a good mechanism providing public and private partners with the opportunity to work together. It should be noted however that this case suggests that contracts must be preceded by a period of audit and diagnostic by high skilled independent experts to achieve accuracy and completeness in contractual estimations.

8. References:

- Rapports de certification available at http://www.has-sante.fr/portail/jcms/c_1340546/en/additif-au-rapport-de-certification-v2010-6225);
Case Study: Romania

Public Private Partnerships Models in Romanian Health Care

1. PPP Law/Legal Framework/PPP Policy in Health

The first PPP Law to be adopted in Romania is as recent as 2010 (Law 178), but the health PPPs were implemented with support of non-specific legislation starting as early as 2003. The signed PPP contract made use of other pieces of legislation available at the time, mainly specifications from the concession law and the health law as in place at the time. The private health sector was regulated at basic level, with only registration being addressed and operation on purely private premises. Mainly primary care physicians in independent practice, some laboratories, most of the dentistry offices and pharmacies represented the private health sector at the time.

The recent PPP Law did not seem to offer any particular incentive for health PPPs and recently the Parliament proposed to be amended (March 2013), as it was too detailed and restrictive for all different kind of PPPs and additional contracts (social and infrastructure).

2. Centralised PPP Unit on health at country level/ Decentralised decision making (devolved/decentralized approach used for management of PPP)

At the time of the preparation and implementation of the first institutional PPPs in the Romanian health sector, there was no official PPP legislation or subsequent institutional approach to PPPs. The organization of the health sector has been recently changed (1999), with MoH being the owner of most Hospitals and the National Health Insurance Fund paying for health services – but none of the main system functions were decentralized at regional or local level. Worth mentioning the fact that Hospitals were and still are organized as independent institutions, allowing PPP-like contracts to be signed by the Hospitals themselves. It is fair to say that all PPPs done during 2003-2005 with IFC Advisory assistance (first and last institutional PPP projects) were planned and regulated at the central level, but than implemented (including the PPP contract) at the appropriate level: NHIF or the Hospitals.

It is very different after 2010, when the PPP Law was issued, but in parallel, the hospitals ownership had been in the vast majority to the local and district authorities. As such, both central and local/ district level authorities can initiate, attribute and enter into PPP contracts, as well as Hospitals themselves. As expected, the downside of this situation is the lack of the implementation capacity at all these levels and the lack of a dedicated support capacity for contracts implementation and monitoring – from financial issues to health care services quality control.

3. First PPP Contract: (year, name)

During 2003, the Government of Romania, with the support of the Advisory Department of the International Finance Corporation (IFC) and World Bank (WB) identified several areas that were considered major health reform areas
and where the private sector participation could be encouraged. They were represented by the dialysis sector “privatization” and the Bucharest network of public Hospitals to be reorganized. Unfortunately, the Gov decided that the latest proposal (Bucharest Hospitals network) was to be transformed in several smaller interventions; all were subject to a Gov Decision instituting the first formal PPPs in the country and health sector. In the end, the list of project was composed of: 8 dialysis centers, national wide, one private wing in a maternity in Bucharest, one laboratory in an University Hospital in Bucharest, one imaging diagnostic center in an University Hospital in Bucharest, a private Hospital built on the premises of a public Hospital, (all bided and awarded) and the private management of a big University hospital in Bucharest, prepared up to investors conference and cancelled.

4. Total Number of PPP Contracts

Currently, the total number of PPP institutional contracts designed according to the goal mentioned in the Government Decision from 2004 remains the same: 12 contracts. It is probably not realistic to count only these at the level of year 2013, as more than 80% of the dialysis services in Romania are being currently provided in private settings having similar contracts with NHIF as the initial 8, or the fact that in many Hospitals services like laboratory or imaging had followed the initial pilot model. In the last 5 years, the dialysis model replicated also to other standardized outpatient services like chemotherapy, radiation therapy or day surgery. Unfortunately, there is no clear evidence and data of the exact number of these contracts, as well no clear information about the contract specifications, all of them being designed and implemented by Hospitals themselves and under confidentiality rules.

5. Model

The general model used and allowed by the Romanian legislation is the services provision contract within the social health insurance system, together with the concession of physical assets in some cases. The majority of the contracts address dialysis services, imaging, laboratory or non-clinical support services in Hospitals, some limited private accommodation and ambulance services for hospitals.

Depending on the circumstances, the PPP contracts in 2004 were signed with Ministry of Health (MoH), National Health Insurance Fund (NHIF) and/ or the Hospital subject to the transaction, so changes in the contracts were subject to initiation and negotiation of signing agencies. All of the contracts were at least one time extended and one of the contracts (imaging department) had to be retendered and replaced the initial winner due to poor performance before even official start up of services delivery.

There is no PFI or full (public) hospital services concession in Romania at the time of this report being submitted. Considerations were given by several different Governments for rehabilitation/ reconstruction and modernization of 8 regional Hospitals in the 8 development regions of the country under a PPP scheme – but none of the last 3 Gov in power managed to follow up on design more than the stage of a pre feasibility study.
6. Share of PPP contracts in total hospital investment plans

Considering the pilot concept and the limited number of contracts, the share of the formal PPP contracts into the general hospitals expenditures in the public sector was not significant (less than 1%), but if we could account the expenditures with all current services being provided by private providers within the public system, the figure would be very different. As mentioned above in the context of the total number of the PPP contracts, there is unfortunately no clear evidence of the number, type and services volume of all these “replica” PPP contracts developed during 2005-2013.

7. Value for money consideration on a macro level (see item 10.)

8. Results of the audit by national auditing chambers N/A

9. Risk transfer models/results

The ownership of the newly rehabilitated center within the Hospital remained with the Hospital, exclusive of mobile assets; the ownership of any new potential facilities to be built outside Hospitals was to remain with the private operator. On a different note, the services contracts with NHIF were subject to certain conditions, but no different from any other obligations of a public or private provider in contract with NHIF. Some of the prescriptions in the PPP contract were even stronger, especially the ones mentioning continuity of care and enforcement of newly introduced norms and standards.

Inflation indexing was addressed by the contract tariff being guaranteed, awarded and signed in Euro, at the national Bank of Romania exchange rate for payment dates. Managing changes in the volume and type of demand over time was subject to yearly contracts with corresponding local subsidiaries of NHIF that adjusted the volume and capability to pay.

The workforce issue (a major challenge in a post communist country when transferring operation of public services): medical and auxiliary staff was taken over entirely from the public facilities for one year; at the end of that period, the provider had the liberty to hire/fire staff and establish salaries rate under the private companies law, but respecting the national organization, delivery, performance and quality dialysis standards.

Managing the effects of changes in the financial costs of delivering services: the tariffs were calculated yearly by NHIF with available funds and applied at the same maximum rate for all providers, public and private, no less than initially included in the PPP contract. Private sector capacity and risk appetite among potential local and/or international operators, investors and/or creditors was high, as for example in the dialysis tender 4 major international players in the dialysis area competed and won the 8 centers. In the following years more local providers enrolled in the model and either applied for other centers or merged with one of the international players to operate one or more centers.

10. Lower cost/person for the Government? Room for innovative approaches

Apart from IFC external evaluation of the dialysis project, no formal audit or evaluation of any other transaction was done, the only indicator of the success being the constant replication and improvement of the model in the country health institutions. For the initial 8-dialysis centers, a cost/benefit analysis showed a result of 40 million USD in new investment by private contractors to upgrade facilities with modern equipment and nearly 4.5 million USD in savings for the Romanian National Health program. The program cost
approximately 1 million USD. By 2006, NHIF health was paying 164 USD per treatment in public clinics and 155 USD in the private ones. A year later, the payment had dropped to 147 USD, even as privately managed clinics also began providing transportation services for their patients.

11. Management of the PPP contracts

Contrary to advisor’s (IFC) recommendations and the initial government intention, no national monitoring agency was established for supervising dialysis or health services. The management of the PPP contracts is done at the level of contracting authority: hospital, HIF or MoH. At each of these levels, no particular structure had been put in place nor specially trained staff was hired, leading to a poor monitoring and quality control of services contracted and reported.

12. Experience positive/negative/Lessons learnt

Several aspects were considered critical and crucial by both the Government and the adviser of the initial health PPP transaction in Romania (IFC) and used as a model for future transactions, influencing the planning process for the health services by MoH and NHIF in Romania:

- introduction of national dialysis standards, up to date and in line with international best practices – a model followed by other similar type of services started being provided by the private sector in the same context as the public one (radiotherapy for example)
- improved quality and access of patients to some specific services
- opening the (private) market for competition
- introducing the PPP concept into the country and health system
- changing the health care provision setting to a more appropriate one
- keeping the door open for innovation (dialysis at home, for example, only affordable to be piloted by the private sector, or expensive research type radiology equipment, cross subsidized for public patients by the private share or revenue of the provider inside the hospital)
- performance based contracting and payment: contracting with public health insurance based on certain quality and performance standards (based on output and quality), extended at national level and used as model for other services contracting
- introducing transparent and performance based payment mechanism, in order to adapt to requirements from the private sector and not favour public vs private providers

13. Sources

1. Romania Health PPP Law no 178/2010;
2. Government Decision 1487/2004 for contracting pilot centers for dialysis services;
3. NHIF Yearly Framework Contract for contracting and payment of medical services within the social health insurance system of Romania – starting with 2005;
Project Case Study University Clinic in Bucharest

1. Introduction – the general context for PPP in the health sector in Romania (2002-2004)

At the time of the health PPP process start up in Romania and of the analysis (2002-2004), no specific PPP or health PPP legislation was in place (first PPP law issued in Romania in 2010) and. Romania has a social health insurance system operational since 1999. The private health sector was regulated at basic level, with only registration of private providers being addressed and operation being purely on private premises. Mainly primary care physicians with independent practice, some laboratories, most of the dentistry offices and pharmacies represented the private health sector at the time.

During 2002, the Government of Romania, with the support of the Advisory Department of the International Finance Corporation (IFC) and World Bank (WB), identified several areas that were considered major health reform areas and where the private sector participation could be encouraged. They were represented by the dialysis sector “privatization” and the Bucharest network of public Hospitals to be reorganized. The Government decided that the latest proposal (Bucharest Hospitals network) was to be broken down into several smaller interventions; all were subject to a Government Decision instituting the first formal PPPs in the country and health sector. In the end, the list of projects was composed of: 8 dialysis centers, national wide, one private wing in a maternity unit in Bucharest, one laboratory in a University Hospital in Bucharest, one imaging diagnostic centre in an University Hospital in Bucharest, a private Hospital built on the premises of a public Hospital in Bucharest, (all tendered and awarded) and the full concession of a big University hospital in Bucharest, prepared up to investors’ conference but then cancelled. The process of the this latest PPP advised by IFC consisted in the legal and technical due diligence, tender documentation preparation, contract(s) preparation, open consultation with interested bidders during and after an investors’ conference. Right before launching the official tender, the Government decided to cancel the tender and the entire process has been abandoned, for reasons that we will try to describe later in this case study. For the sake of this chapter, we will call this latest hospital the “PPP Hospital”.

Depending on the circumstances, the PPP contracts awarded were signed with Ministry of Health (MoH), National Health Insurance Fund (NHIF) and/ or the Hospital subject to the transaction, so changes in the contracts were subject to initiation and negotiation of the signing agencies. All contracts were extended at least once, and one of the contracts (imaging department) had to be retendered and had to replace the initial winner due to poor performance before even official start up of services delivery.

Several years after conclusion of these transactions, the model was widely disseminated and became standard practice country wide for similar types of services. MoH and local authorities (some of them owners of public Hospitals) allow for this type of transactions to be executed through specifications in the updates to the Health Law (several changes since 2003) and through the yearly Framework Contract specifications of the NHIF.

Apart from an IFC external evaluation (performed by Independent Evaluation Group during 2007-2008) of the dialysis project, no formal audit or evaluation of any other transaction has been done, the only indicator of the success being the constant replication and improvement of the model in the country health institutions. Apart from what is considered a success by the country itself and the independent evaluators, one of the proposed transactions was abandoned by the Government right before approval in the Parliament of the tender launch – privatization of a big tertiary care University Hospital. This is
also considered a great lesson learned, for several reasons: one model doesn’t necessary fit all, especially when politics of the way the medical system and lobby was organized, in an environment where informal payments are a large source of revenue for the medical staff, where hospital management was still at the level of “budget execution” (budgeting for inputs). More than this, the preparation of tender, contract, tender documents and the entire technical and legal due diligence process revealed major financial and operational management issues in running the PPP Hospital whne compared with internationally accepted standards. These issues were presumed by main stakeholders in the health system, but never documented with a specific analysis and reliable data/evidence.

This is why we consider relevant to present this case study of a failed contract, not only to show what constitutes success but also what can happen to prevent PPP with good potential impact from even getting to the stage of tender, after intense resource preparations, with all willingness and effort from the beneficiary and the advisers and increased investors’ interest.

2. Type of PPP

The 2002 above-mentioned IFC study in cooperation with the Government of Romania found a young contracting based national social health insurance system that was failing to deliver appropriate health services, including Hospital services. The access to health services, quality of care, and management performance ranked far below that of its European neighbours. The health expenditure was 4% of GDP (= $102 per capita), with the bulk of expenditures publicly funded through national health insurance system (CNAS). In terms of health indicators, the life expectancy was 65.1 years for males and 73.5 for females. There were approximately 400 public hospitals, accounting for about 1600,000 beds (6.5 for 1000 population), with no clear separation of inpatient acute care and other type of care (mono specialty, long term etc). The portion of NHIF funding allocated for hospital care had nearly doubled, from $645 million in 1999 to an estimated $1.235 billion in 2004.

Independent studies also revealed severe problems, including inadequate care, deficient pharmaceuticals and supplies, insufficient physician follow-up with patients, lack of national care standards, and poor cost-management and accounting practices. The level of arrears of Hospitals was increasing sharply.
year by year (reaching 20 million Euros in 2003), and Romanian hospitals provided costly services and of inferior quality - outdated equipment, poor referral and follow-up systems and lack of specialized clinical guidelines. Also, multiple funding streams (MOH for investment and some national programs, NHIF for services and other national health programs, own internal sources of revenue etc) and fragmented procurement systems resulted in a lack of transparency and accountability in managing and operating the Hospital budgets. Last but not least, Hospital services, whether chronic or acute conditions (diagnosis or treatment), were delivered inside the hospitals mostly through inpatient care, not the most appropriate setting for a large group of conditions.

The decision was taken then to involve the private sector in the delivery of modern, efficient and high-quality Hospital services to patients, as long as repeated changes in the legislation for Hospitals and health system management were not coordinated or enforced well by the Government. The process was to happen gradually, initially through the concession of all physical assets (land, equipment, hard and soft inventory list) and - most important - the management of all facilities and services (clinical and support services, medical and non medical) of the biggest University Hospital in Bucharest (second largest in the country), called in this paper the “Bucharest PPP Hospital”.

The PPP Hospital can be described at the start of the potential PPP process by the following characteristics: well-renovated and equipped tertiary care hospital with top medical staff, one of the most prestigious national public hospitals in the country, $23m budget - one of the largest in the country, an excellent geographical location, with no competitors nearby, 1100 acute care beds in 9 clinical high end specialties and §1,500 staff, including about 289 doctors and 634 nurses.

The facilities of the Hospital proposed for conversion to PPP were the two main buildings, 10-floors each: building A: constructed in 1956 and renovated/consolidated in 1990s and building B: constructed in 1969; not
consolidated. The second structure was shared with the Cardiology Institute (PPP Hospital occupies 4 floors, Cardiology Institute occupies 6 floors). The PPP Hospital owned 24 hectares of land, which provides significant potential to develop other medical business to complement PPP activities and to provide additional revenue-generating possibilities; it is located adjacent to Cardiology Institute (which shares one of PPP's buildings) and the Oncology Institute. It has 14 operating rooms (ORs) renovated in 2003, and all ORs are equipped with video and computers for downloading radiology results, 18-bed ICU - latest generation equipment and two 20-bed post op/ICU units within surgery and urology. It is also equipped with excellent diagnostic imaging equipment: one GE MRI (Jan/01), two CTs and one Siemens angiography, new surgical equipment, 19 outpatient dialysis machines and 10 mobile dialysis machines for acute patients, a linear accelerator (Varian year 2000) - all being said, the equipment being comparable to Western European and US hospitals.

It is clear now that it was not the infrastructure that was the main driver that made the Government want to tender the concession and operation of the Hospital, but rather the inefficient way of delivering very expensive inpatient services and the cultural barriers in trying to enforce the rule of law when facing issues like transparency, informal payments and statute/ salaries of public medical staff. The main point to be addressed by the preparation and implementation of the PPP Hospital project was to seek gains in operating efficiency of the clinical services by:

i. Expand the type, availability and quality of tertiary medical services for Public Patients

ii. Strengthen the PPP Hospital as a premier national hospital for tertiary care, medical teaching and research

iii. Expand the number of Clinical Specialties available at PPP Hospital

iv. Improve the efficiency of PPP Hospital in the delivery of Medical Services

v. Strengthen the financial viability and competitive position of PPP Hospital as a core hospital and center of excellence for the future

vi. Increase the revenue for PPP Hospital and choice for patients through the provision of Medical Services for Private Patients

vii. Increase the opportunities of PPP Hospital staff for training, career development and increasing their income

viii. Transfer the responsibility for funding capital expenditures for equipment and renovations in PPP Hospital from the Ministry to the Concessionaire

3. The population served by the PPP facility

The population of Bucharest city at the time was about 2,000,000, but PPP Hospital received more than 60% of its patient from across the country, being a tertiary care referral centre. As a major tertiary care hospital, PPP Hospital tends to handle more complex cases, including operations such as liver and kidney transplants. It is not an emergency hospital (ED admissions represent little less than 10% of total admits).
PPP Hospital net inpatient volume (excluding inter-departmental transfers) has increased steadily in recent years, rising by 45% from 32,267 in year 2000 to 47,039 in year 2003. Hematology, gastroenterology and urology account for more than 50% of inpatient admissions.

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4. Design of the PPP and award procedure

4.1. The Process
A team of experts was identified and started working on the proposed transaction: international and local consultants (legal, medical, health services specialists, architect), including representatives of the Ministry of Health, National Health Insurance Fund, College of Physicians, Medical University, Medical Academia and the formal and informal leaders of the PPP Hospital: 3 most renowned Clinical Professors, the CEO and the CFO of the Hospital. The official adviser selected by the MoH to coordinate and subcontract where needed (legal for example) was the IFC, PPP Advisory Dep.

4.2. The Model
We describe below the main rights and obligations of the private party as they were stipulated in the draft contract presented to interested and registered bidders after the Investors Conference, incorporating input from the private side, as well as some of the key governance arrangements. It is common in the health systems from former communist countries that the public partner has a dual role, with ownership at the level of central or local level authorities but with services contracts being signed and payments being directed to providers by third parties, like health insurance funds. The proposed PPP model had to clarify both of these contractual aspects; the Insurance Fund part was the easiest, as it was mutually agreed by all parties that the same framework contract and payment arrangement will be used as for any other hospital in the country – meaning that all the demand risk was to be taken by the concessionaire at the same level as when the hospital was run under the public sector scheme; more detailed work was required for the concession contract with MoH itself.
4.3. Concessionaire rights

The Concessionaire has the right to exploit, manage, operate, maintain, upgrade, renew and expand, where appropriate, the Concession Assets and Private Assets, to provide Medical Services to Public Patients and Private Patients within the Concession Area, to introduce new Clinical Specialties to be provided within PPP Hospital, and to construct a New Facility within the Concession Area for the provision of Medical Services to Public Patients and/or Private Patients. The Concessionaire may merge Clinical Specialties if it deems necessary to enable higher quality medical care for patients and increased efficiency in managing patient care. The Concessionaire may not discontinue a Clinical Specialty for at least the initial five years of the contract. Thereafter, the Concessionaire may only discontinue a Clinical Specialty if: (a) patient volume has declined significantly and there is insufficient patient volume to ensure adequate quality care; and (b) the Ministry approves of the proposed discontinuation. It is also free to set prices to be charged for Medical Services provided to Private Patients at PPP Hospital. All prices should be posted in a prominent place, such as the reception area.

The Concessionaire has the right to procure equipment, medical supplies, and other goods of a capital or operating nature in accordance with commercial practices. For the avoidance of doubt, the Concessionaire will not be subject to the Public Procurement Law in place at the time, requiring for example to follow a certain complicated procedure even for emergency small acquisitions, requiring to buy the items with lowest price no matter the quality – some of these encouraging inefficiency and artificially increasing the operating costs. The Concessionaire is not permitted to develop or exploit non-medical business within the Concession Area.

The Concessionaire has the right, at its own risk and peril, to conduct Clinical Trials within the Concession Area, subject to obtaining signed patient consent for all patients involved in the Clinical Trials and compliance with the EU Directive on Good Clinical Practice in Clinical Trials (The Clinical Trials Directive 2001/20/EC), and any national provisions which may be adopted by the Government of Romania for application of this Directive.
4.4. The Concessionaire’s Obligations

The Concessionaire must provide Medical Services to all emergency Public Patients who present to PPP Hospital for diagnosis and treatment and all Public Patients who present to PPP with referrals from licensed physicians or health care providers, and subject to NHIF norms and regulations in effect. The Concessionaire must comply with Good Standards of Service and Medical Care Norms and with all current and future Romanian standards, licensing, and accreditation requirements related to the level and type of medical care provided at any time by the Concessionaire.

The Concessionaire had to, within 24 months of start of the operation, introduce Clinical Protocols, or update existing Clinical Protocols as the case may be.

The Concessionaire undertakes to maintain the Concession Assets and Private Assets in good order and repair to permit the proper functioning of PPP as a tertiary care hospital and compliance with Good Standards of Service and Medical Care Norms and make the necessary capital expenditures in Concession Assets to maintain and strengthen PPP’s position as a premier national tertiary care hospital and centre of excellence.

The Concessionaire undertakes to maintain sufficient employees or contractors to be able to meet the obligations and to ensure the professional and ethical conduct of its employees at all times, including patient treatment and service, and will take disciplinary action against transgressor employees when necessary.

4.5. Concession Fee

The Concessionaire will pay to the Ministry of Health a Concession Fee as resulted from the financial bid (but not being the exclusive financial bidding criteria, as explained below in the next paragraphs). The Concession Fee for the first year of the Concession shall be paid in full no later than six months from the start up of this Concession Contract. The other Royalties due for the rest of the life of the Concession shall be paid in advance to the year for which the payment is made, before, or at the latest on, each anniversary of the Start up of the Contract. As the MoH wanted mostly to improve the performance of the Hospital management and keep majority of the improved clinical services in the public domain, the major financial criteria was not the concession fee exclusively (extra revenue), but the combination of the concession fee with the level of the investment that the potential investors was willing to bring with its 5 years business plan in the PPP Hospital.

5. The tender process

Based on the experience of the advisors and on the MoH final decision, the tender process had to be started after draft version of all tender documents were finalized, revised by interested potential investors, discussed during an investors’ conference and published as an official tender package. The particularity of this process was that registered investors had the opportunity to review and comment on draft contracts before finalized. Final contracts were to be issued with the tender procedures (specific instructions on how bids should be prepared, submitted and evaluated).

A graphical representation of the proposed transaction timeline is presented below:
Bidders could form consortia; each bidding consortium must include one registered investor and one hospital operator (if different from the registered investor). Each bidder/consortium had to submit:

**Information confirming their financial and technical capacity**

A *Business Plan for PPP Hospital* (max 50 pages), setting out proposed actions/timetable, including inter alia

- **Clinical Services**
  - improvements and modifications in clinical services
  - proposed targets for quality and operational improvements to achieve EU standards
  - expansion of clinical specialties and medical services for public patients
  - quality assurance program and implementation of clinical protocols
  - introduction of medical services for private patients

- **Facility Upgrading**
  - Improvements to buildings and equipment

- **Hospital Administration**
  - Improvements to financial management, MIS, non-clinical services, etc

- **Staffing**
  - Staff training plan
  - Bonus or incentive proposals
  - Opportunities to treat private patients
  - Opportunities to work/train/teach abroad

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<td>Investors’ conference</td>
<td>July 9, 2004</td>
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<td>Investor due diligence and discussions with registered investors</td>
<td>May 12th ++</td>
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<td>Issuance of draft contracts for review by registered investors</td>
<td>July 30, 2004</td>
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<td>Comments from registered investors on draft contracts</td>
<td>August 27, 2004</td>
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<td>Issuance final tender procedures and contracts</td>
<td>September 30, 2004</td>
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<td>October 29, 2004</td>
</tr>
<tr>
<td>Commencement of concession contract</td>
<td>January 1, 2005</td>
</tr>
</tbody>
</table>
- Governance
  - Proposed organizational structure and Board of administration structure
- Teaching and Research
  - Proposals for strengthening PPP’s teaching and research activities
- Financing Proposal
  - Proposed level of capital expenditures for initial 5 years
  - Proposed method of financing capital expenditures

**Hospital Operational Experience**
- Extent of hospital operating experience (countries, number of hospitals, patients)
- Experience in providing hospital services to publicly-funded or publicly-insured patients and/or in managing public hospitals (i.e. for public patients)
- Hospital management approach and core strategy
- Quality indicators in their hospitals
- Other performance indicators (e.g. Experience managing university tertiary care teaching hospitals)
- Type and range of tertiary care services provided
- Approach to governance, staff training and incentives
- Financial strength

Bids were to be evaluated by an Evaluation Committee as follows: there will be a pass/fail threshold for technical and financial strength of bidder/consortium with quantified thresholds that bidders must pass to continue to next stage. The thresholds were in terms of total revenue and number of hospital patients treated in 2003 by registered investor and/or hospital operator. Those who pass thresholds will proceed to next items; Business Plans will be evaluated and scored (weights to be determined) and proposed 5-year capital expenditures plan will be scored as financial proposal (weight to be determined). The Hospital management experience will be scored (weight to be determined). In the end, the Evaluation Committee has the right to request additional information or clarification from bidders during the evaluation process. The winner will be bidder/consortium that has the highest score of those who passed initial threshold.

6. **Sources of financing**

The main source of revenue for the private operator would be, like in the case of the public operation of the PPP Hospital, the contract for services with the public health insurance fund. At the time of the PPP project, the PPP Hospital had an annual budget of about 23 million USD, probably the highest in Romania. Funding for PPP Hospital increased from 348 billion Lei ($16 million equivalent) in 2000 to 707 billion (US$21.3 million equivalent) in 2003 and operating expenditures increased sharply from 2000 ($18.5 million) to 2002
($23.7 million), resulting in deficits, but dropped significantly in 2003 ($16.9 million).

The contract with NHIF would be capped (as volume of services and final contract value) and DRG based, as the case with all Hospitals in Romania and divided into a few major categories: inpatient care (more than 80%), outpatient diagnostic and treatment procedures, day stay hospitalization and national health programmes like transplantation of organs, oncology drugs, prostheses, diabetes etc. Apart from these standard contracts, the Hospital management was supposed to sign new contracts with Medical University, Medical College for Nurses, Medical Academia for research and/or interested pharmaceutical companies for clinical studies. It is expected that apart from the last-named, very little revenue will be associated with those contracts, which were put in place mainly as an instrument to control and formalize previously unclear working relationships or use of resources. Nevertheless, from the total value of the contracts signed we need to account for the concession fee, something that the Hospital will pay to the MoH for assets and management, as well as for the arrears. During Jan-May 2004, PPP Hospital paid off all outstanding debts from 2002 (375 billion Lei) with a special allocation provided by NHIF for debt repayment, but still had 40 billion Lei in debts from 2003 (35 billion owing to pharmaceutical companies).

It was considered an “atypical” Hospital PPP contract at the time, and even today, but the transaction seemed appealing to a large group of international investors, mainly due to the potential of the site, location and quality of medical business. As the private market in Romania was at the time at the very beginning, with no major Hospital built or operated at the time, the local investors interest was non-existent, at least from the health services perspective.

The concept of the full concession of an entire Hospital to take over the full management of the clinical services, including staff management is something not easy to implement even 10 years after and in countries with tradition in operating complex PPP projects.

7. Total declared investment cost

There was no up front total investment cost declared for the specific transaction, but the total investment cost presented and approved in the business plan was supposed to be critical selection criteria for the winning bidder for the project, after passing the technical criteria and weighted with several other indicators (like the level of the concession fee for the MoH, for example). During the initial 5 years of the contract only minor investments in
assets and repairs would be envisaged, as investors said that they will need from 3 to 5 years to clean up debts, clear up and restructure financial and operational procedures and start a private business line. Considering the good state of buildings and equipment, probably maintenance and minor refurbishment would generate no more than 5-10 million USD costs in the first 3-5 years.

8. **What info has actually been published/disclosed on each PPP project and on the PPP program overall**

As described in the introductory sub chapter of this case study, this project didn’t have a chance to transform into a real life PPP. The process stopped before tender launch, right after interested investors’ first conference (organized before the official launch of the tender), so the documents are mainly available only at the level of the Romanian Ministry of Health and IFC Advisory. Data presented in this study were collected by the independent local consultant during the preparation of the PPP and is owned with consent from the 2 agencies, as it was presented in several other interventions of the “why it did not work?” type – lessons learnt. This data and information has not been published in the public domain.

9. **Main lines of contractual framework, including duration of the contract, flexibility of the contract, contractual obligation, risk allocation and governance and administration**

9.1. **Governance Arrangements**

Under private management, PPP will be governed by a Board of Administration composed of nine members, including five appointed by the Concessionaire, one appointed by the Minister of Health, one appointed by the Minister of Finance, one appointed by the Ministry of Defense (owner of the radiotherapy department serving all institutions in the PPP area) and one appointed by the employees of PPP. The Board of Administration will be chaired by a president, who will be elected by a majority of the members of the Board of Administration. The responsibilities of the Board of Administration are to:

- Approve the annual operating and capital budget
- Appoint the external auditors and review and approve the report of the external auditor
- Approve the compensation of the senior management of PPP
- Approve collective agreements negotiated with employees.
- Approve the contracts signed with HIF Bucharest and other insurance houses prior to signature by the President
- Approve any reorganization of PPP, including opening, merging or discontinuation of Clinical Specialties, and staff reductions.

A Medical Council shall be established, composed of the heads of the medical departments, including without limitation the head of the Department of Radiobiology and Radiotherapy. The Medical Council will meet monthly, or more often as deemed appropriate. Its primary functions will be to:

- Review medical practices to ensure that all Patients admitted or treated at PPP receive optimal medical diagnosis, treatment and personalized care
- Ensure, through ongoing review and evaluation procedures, a high level of professional and ethical performance of all PPP medical staff
- Ensure an appropriate setting for conducting and furthering medical education, training and research
- Provide continuous feedback to PPP management on medical practices, treatment, education, training and research to ensure that PPP maintains and strengthens its position as a premier tertiary care hospital

9.2. Business Plan

The Concessionaire will implement its Business Plan as submitted during the tender process. The Business Plan will set out the Concessionaire’s plans for the initial five years for, inter alia: (a) capital investments in improvements and modifications in facilities and equipment; (b) expansion and improvement of Clinical Specialties and Medical Services for Public Patients; and (c) staff training and incentives. The Concessionaire may, at any time from 12 months through 60 months from start up, submit to the Ministry for review and approval, a Revised Business Plan if there has been a Material Change. Approval by the Ministry shall not be unreasonably withheld, provided the Revised Business Plan contains adequate supporting analysis and justification.

9.3. Capital Expenditures

The Ministry undertakes to complete and pay all invoices related to all construction projects signed and under execution before the start up of the project, including, without limitation, renovations to the top two floors of Building A. The Ministry also undertakes to pay all invoices related to medical equipment, or other capital equipment, which have been ordered prior to the start up. After the start up, the Concessionaire is responsible for all Capital Expenditures related to: (a) maintenance of all Concession Assets; (b) purchase and installation of all Project Assets; (c) all costs related to the construction and commissioning of the New Facility; (d) renovations to existing facilities included in the Concession Assets. For the avoidance of doubt, the Concessionaire is not responsible for any Capital Expenditures which may be deemed necessary by the relevant authorities to upgrade Building B, or further upgrade Building A, to meet current or future building standards related to earthquake protection.

The Concessionaire will implement the level of Capital Expenditures, and in accordance with the timetable, set out in the Business Plan or Revised Business Plan, as approved by the Ministry of Health. In the event that the cumulative amount of Capital Expenditures undertaken by the Concessionaire for the initial five years after the start up is less than the proposed total level of Capital Expenditures in the Business Plan or Revised Business Plan, as approved by the Ministry, as verified in the annual financial statements of the Concessionaire, the Concessionaire will pay the difference in Euros to the Ministry within 90 days of completion of the audited financial statements.

9.4. New Facility

The Government has to approve, through a Government Decision a guarantee ("Loan Guarantee") by the Minister of Finance for an external credit of up to USD 28 million for construction and equipping of a new medical facility within the Concession Area. The Loan Guarantee includes up to USD 20 million for the building and up to USD 8 million for the equipment. The Loan Guarantee is available to the Concessionaire for construction and equipping of the New Facility under the terms and conditions set out in the Government Decision.

In the event that Building B is demolished as part of the construction project for the New Facility, the Ministry will be responsible for all costs and demolition/cleanup activities related to Building B. The Ministry also hereby indemnifies the Concessionaire against any liability, claims, damage, or legal action related to the demolition of Building B. In the event that the demolition of Building B is linked to the construction project for the New Facility, the Concessionaire will have the option to transfer the staff, equipment and Medical Services of the Cardiology Institute (located in Building B) to the New Facility, provided: (a) the Ministry and Concessionaire
can reach written agreement on the terms and conditions of such transfer; 
(b) such transfer follows the procedures set out in the relevant laws in force 
at that time.

9.5. Transplants

Transplants performed by the Concessionaire must be performed in 
accordance with applicable Romanian legislation, clinical standards and 
norms. In the event that the European Union adopts clinical standards for 
organ transplants, the Concessionaire must comply with such standards from 
the date of issuance.

The Concessionaire shall only perform transplants for Public Patients if: (a) 
there is a signed agreement (“Transplant Agreement”) between the 
Concessionaire and the Ministry and/or HIF Bucharest setting out the type, 
volume and reimbursement methodology for transplants to be performed on 
Public Patients at PPP for a specific year; (b) the agreed volumes are deemed 
sufficient to ensure quality treatment in accordance with international best 
practices. The Concessionaire shall not perform any transplants for Public 
Patients above the volume and type specified in the Transplant Agreement.

In the event that the Ministry is responsible for funding transplants for Public 
Patients under the Transplant Agreement, the Concessionaire shall submit 
monthly invoices to the Ministry, specifying the number and type of 
transplants performed for Public Patients for the period. The Ministry shall 
reimburse the Concessionaire within 45 days of receiving the invoice, in 
accordance with the reimbursement methodology set out in the Transplant 
Agreement. In the event that HIF is responsible for funding transplants for 
Public Patients under the Transplant Agreement, this will be included in the 
HIF Contract.

The Concessionaire shall be permitted to perform transplants on Private 
Patients provided: (a) all organs are donated on a voluntary basis without 
payment; (b) there is no trade in, or sale of, human organs; and (c) 
transplants are performed in accordance with all national and international 
applicable regulations and under a clear delineation and transparent 
procedure to separate between public and private patients.

9.6. Medical Education and Training

The Concessionaire will carry out medical education and training activities on 
behalf of the University of Medicine, in accordance with a Medical Education 
and Training Contract to be signed between the Concessionaire and the 
University of Medicine, setting out the respective parties’ responsibilities for 
medical education and training, the staffing arrangements and the funding 
arrangements, if applicable. The Medical Education and Training Contract may 
be amended periodically with the agreement of the University of Medicine and 
the Concessionaire. The Concessionaire and the University of Medicine should 
make best efforts to sign a contract as soon as possible after the Start up. In 
any event, pending the signing of the Medical Education Contract, the 
Concessionaire is obliged to continue the same level of training as was carried 
out by PPP during the 12 months prior to the start up.

9.7. Nurse Training

PPP will continue to be an important centre for nurse training. The 
Concessionaire will carry out nurse training activities in accordance with a 
Nurse Training Contract to be signed annually with the School of Nursing, 
setting out the number of nurses to be trained in a specific year, hours of 
training at PPP, Clinical Specialties, etc. The Concessionaire shall continue to 
train at least 70 nurses annually for the Contract Period, unless the 
Concessionaire and the School of Nursing mutually agree on a reduction to 
reflect changing market conditions and reduced demand for new nurses. The 
Concessionaire is free to enter into nurse training contracts with other schools
9.8. Research

PPP will continue to carry our clinical and other research on behalf of the Romanian Academy of Medical Science ("Academy") and the Department of Radiobiology and Radiotherapy of the Center for Military Medicine of the Ministry of Defence ("Ministry of Defence"). The Concessionaire and the Academy will sign a Medical Research Contract setting out the medical research activities to be carried out at PPP, the funding responsibilities, the staffing, sharing of royalties, etc. The Medical Research Contract may be updated periodically upon mutual agreement of the Concessionaire and the Academy.

The Concessionaire and the Ministry of Defence will sign a Radiological Research Contract for radiological research to be carried out on behalf of the Ministry of Defence within the radiotherapy premises of the Concession Area. The research will pertain to diagnosis and treatment of radiation exposure disease and radioactive contamination. The Radiological Research Contract will set out the radiological research activities to be carried out at PPP, the funding responsibilities, the staffing, etc. The Radiological Research Contract may be updated periodically upon mutual written agreement of the Concessionaire and the Ministry of Defence.

10. Payment mechanism

The proposed payment mechanisms for the concession contract were as follows:

- Payment for medical services, from the HIF or the MoH to the Concessionaire
  - DRG based for inpatient and day stay, same rates as in the rest of the public system; at the time of the contract preparation, the rate was about 350 USD per weighted patient and the case mix index of PPP Hospital was 1.1
  - National health programmes: same as in the rest of the public system, direct acquisition or reimbursement of drugs, medical supplies, prosthesis or investigations
  - Investments: direct investments from the MoH budget only in certain circumstances – most of the investments were to be done by the private provider under the concession
- Payment of the concession fee by the Concessionaire to the MoH: annually, at the level set as the result of the tender
- Payments for different contracts with Medical University, Medical College, Academia and Ministry of Defense – as agreed in the Contracts.

11. Monitoring /reporting mechanisms from the side of the public/contracting authority

No clear detailed monitoring mechanism had been designed by the time when the process has been cancelled; MoH had the right to inspect and receive reports in an agreed model from the concessionaire. Regular NHIF reporting was stipulated in the draft contract.

12. Cost per patients

At the time of the proposed PPP intervention, no cost accounting at patient level was available within the PPP Hospital, and in no other Hospital in the public system in Romania, a major draw back of the health sector when spending about 70% of the resources within the hospitals. The most detailed
cost accounting information was at department level, but these were mainly direct costs. The arrears for drugs and supplies were making the calculations even more difficult, as there was also no clear evidence (patient or department level) for their allocation to certain patients and departments. The only proxy indicator was the tariff level from the HIF, about 350 USD per weighted case.

13. Integration/ referral with the rest of the health system

As any other Hospital in the Romanian public system, the PPP Hospital had to deliver care to all emergencies (declared as such by admitting physician) and all patients with a valid referral from a specialist or primary care physician. Even though the PPP Hospital was a tertiary care Hospital, no real filter was in place to avoid simple cases (they presented themselves as emergencies or with appropriate referrals) and because of the good reputation and induced demand, the complexity of the cases was lower than other Clinical Institutes and University Hospitals in the country. No formal waiting lists were in place (legislation allowing it), but informal ones were common, especially for complex investigations and surgical procedures. The only specific referral criteria introduced by the PPP contract was to refer to transplants, their number, price and waiting lists being more strictly regulated and aligned with minimum quality criteria but also increased tariffs to reflect at least a decent percentage of the actual costs (at the time, the tariff for transplantation covered about 10% of the intervention and complementary investigations and care).

14. Lessons learnt from the experience, both positive/negative

Romania had at the time of this project (2002-2004) an excellent investment climate and outlook, was on target for EU accession in 2007, continued economic growth and declining inflation, a well-established and functioning national health insurance system, an ambitious programme of health sector reform – but these were not enough. The PPP Hospital represented an excellent investment opportunity: top reputation as premier tertiary hospital in Romania, top clinical staff, well-equipped and renovated main facility, strong patient demand, well-funded by NHIF (one of largest hospital budgets), good geographical location, well positioned as a core hospital post-EU accession, well positioned to serve untapped private health market – but this seemed not enough at the time and in the context from 2004. The positive experience and learning opportunity was shared and enjoyed by the technical team preparing the transaction, both from the advisors and the beneficiary side: ministry of health and the PPP Hospital most. It was probably the first time when the full financial statements of the hospital were cleaned up and audited by third independent parties, as well as a basic clinical performance analysis done.

The other lesson learnt from the PPP Hospital experience is the sensitivity of large-scale medical operation (and not only infrastructure) PPPs to the local political and cultural (medical) context. Almost two years of preparations, commitment and payment of the advisors from the MoH, the enthusiasm of some local leaders, and potential serious investors’ interest could not outweigh in the end the concerns of the local senior clinical personnel. They were for sure uncertain about the new system to be put in place, they had concerns over experimentation with new standardized medical models and risk of untested changes, they did not feel that the shift of decision-making from doctors to financially-oriented investors would work in the benefit of their medical practice. As a result, when the final tender documents were sent to the Parliament for endorsement (fall 2004), the vote was negative and the
tender cancelled, even though the majority in the parliament was from the same party as the Minister of Health or the President of the NHIF.

Just a couple of years after, the amendments to the Health Law 95 (2006) do mention the possibility and the conditions (almost identical with those in the PPP Hospital project) for public hospitals to be managed by private operators, either individuals or companies; the only major difference in the new Law refers to the assets of any public Hospital, not being transferred together with the management responsibility as a concession to the management. But it was another 4-5 years before the first public Hospital in Romania to be managed privately (2009) – and not surprisingly, this was about a small general hospital in the country (not in the capital city Bucharest) and the manager was an association of medical doctors within that hospital.

The following headlines do not apply to the presented case study as the project did not pass the tendering phase and could not be consequently measured.

- General satisfaction of the private and public partners
- Hospital/Staff satisfaction (if data available)
- Comparison with the similar state run facility
- Results of audit/external monitoring / evaluation

15. Bibliography

1. Romania Health PPP Law no 178/2010
2. NHIF Yearly Framework Contract for contracting and payment of medical services within the social health insurance system of Romania – starting with 2005
Project Case Study Dialysis Centers in Romania

1. Introduction – the general context for PPP in the health sector in Romania (year 2003)

At the time of the PPP process start up and of the analysis (2002-2003), no specific PPP or health PPP legislation was in place (first PPP law issued in Romania in 2010) and Romania has a social health insurance system operational since 1999. The private health sector was regulated at basic level, with only registration of private providers being addressed and operation being purely on private premises. Mainly primary care physicians with independent practice, some laboratories, most of the dentistry offices and pharmacies represented the private health sector at the time.

During 2003, the Government of Romania, with the support of the Advisory Department of the International Finance Corporation (IFC) and World Bank (WB) identified several areas that were considered major health reform areas and where the private sector participation could be encouraged. They were represented by the dialysis sector “privatization” and the Bucharest network of public Hospitals to be reorganized. Unfortunately, the Gov decided that the latest proposal (Bucharest Hospitals network) was to be transformed in several smaller interventions; all were subject to a Gov Decision instituting the first formal PPPs in the country and health sector. In the end, the list of project was composed of: 8 dialysis centers, national wide, one private wing in a maternity in Bucharest, one laboratory in an University Hospital in Bucharest, one imaging diagnostic center in an University Hospital in Bucharest, a private Hospital built on the premises of a public Hospital, (all bided and awarded) and the private management of a big University hospital in Bucharest, prepared up to investors conference and cancelled.

Depending on the circumstances, the PPP contracts were signed with Ministry of Health (MoH), National Health Insurance Fund (NHIF) and/ or the Hospital subject to the transaction, so changes in the contracts were subject to initiation and negotiation of signing agencies. All of the contracts were at least one time extended and one of the contracts (imaging department) had to be retendered and replaced the initial winner due to poor performance before even official start up of services delivery.

Several years after conclusion of these transactions, the model disseminated and it is now subject to current practices country wide for similar types of services. MoH and local authorities (some of them owners of public Hospitals) allow for this type of transactions to be executed through specifications in the updates to the Health Law (several changes since 2003) and through the yearly Framework Contract specifications of the NHIF.

Apart from IFC external evaluation of the dialysis project, no formal audit or evaluation of any other transaction was done, the only indicator of the success being the constant replication and improvement of the model in the country health institutions. A special mention for the introduction of the Romanian national dialysis standards, very much in line with international practices as a direct result of the PPP tender for the 8 centres; standards were gradually introduced in all dialysis centers in the country, public or private and updated regularly.

2. Type of PPP (secondary/tertiary hospital, diagnostic center, treatment etc), structure of the arrangement, services to be provided

The 2002 above mentioned IFC study in cooperation with the Government of Romania found a national social health insurance system that was failing to deliver badly needed health services, including dialysis. The access to health services, quality of care, and management performance ranked far below that
of its European neighbours. Romania had 36 haemodialysis machines per million people (pmp), compared with 93 pmp in Hungary and 102 pmp in the Czech Republic. Approximately 300 patients/ million inhabitants in Romania were receiving treatment for end-stage renal disease, one-third the European average in 2002, 70% below the average treatment rate in Western Europe.

Independent studies also revealed severe problems, including inadequate care, deficient pharmaceuticals and supplies, insufficient physician follow-up with patients, lack of national care standards, and poor cost-management and accounting practices. The growth of kidney disease in Romania was among the highest in Europe, and Romanian government provided services were relatively costly and of inferior quality - outdated equipment, poor follow-up and lack of specialized staff training. Also, multiple funding streams and fragmented procurement systems resulted in a lack of transparency and accountability in managing operating budgets for dialysis services. Last, but not least the dialysis services, no matter the chronic or acute ones were delivered inside the hospitals, patients being admitted as inpatients and gradually moving to day stay care.

The decision was taken then to involve the private sector in the delivery of modern, efficient and qualitative renal and peritoneal dialysis services to patients. The process was to happen gradually, initially facilities inside hospitals to be renovated, reequipped and provide both acute and chronic dialysis services to existing and new patients; gradually, as specified by the PPP contract, the aim was to relocate the chronic dialysis centers outside hospitals and remaining acute care to be taken over in the upgraded departments by the participating hospitals. For the first stage, 8 centers were identified across the country, 2 in the capital city of Bucharest (Sf Ioan General Hospital and Carol Davilla Nephrology Hospital) and other 6 in county Hospitals all over the county (Alba, Buzau, Iasi, Mures, Cluj and Gorj counties – out of the total of 42 counties of Romania).

The main points to be addressed alongside with the preparation and implementation of the PPP dialysis project were: (i) revise and update national dialysis standards and practices and prepare legislation, including harmonization with European Union clinical guidelines; (ii) establish regional survey reporting of dialysis cost and prices; (iii) conduct cost analysis of dialysis; and (iv) create model tender documents.

3. The population served by the PPP facility
The average population of a county in Romania was in 2003 of about 400,000, but more accurate figures are to be found in the table below. For Bucharest, it is accurate to say that the 2 Hospitals were covering chronic dialysis for about one third of the 2,000,000 population at the time. We need to mention that counties in bold were also referral centers for complicated cases, mostly in County University Hospitals, part of the PPP process started in 2003 for the dialysis centers, as well as the fact that some counties would also attract patients from other counties due to access issues (closer location) – and this was in line with the insurance system referral and reimbursement regulations. The number of outpatients receiving dialysis in the centers was forecasted at about 200,000/year.

<table>
<thead>
<tr>
<th>County</th>
<th>Population (2002)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROMANIA</td>
<td>21,680,974</td>
</tr>
<tr>
<td>Bucharest (2 centers)</td>
<td>1,926,334</td>
</tr>
<tr>
<td>Iasi</td>
<td>816,910</td>
</tr>
<tr>
<td>Cluj</td>
<td>702,755</td>
</tr>
<tr>
<td>Mures</td>
<td>580,851</td>
</tr>
</tbody>
</table>
4. Design of the PPP and award procedure

4.1. The Process
A team of experts was identified and started working on the transaction: international and local consultants (legal, medical, health services specialists, architect), including representatives of the Ministry of Health and National Health Insurance Fund, but with no specific structure or guidelines to address the process. After a quick review and selection of centers locations, it proved that the critical issue is the lack of national standards regarding the services that were being tendered. So in parallel, a team of nephrologists with input from different other specialist started working on what became the framework for national dialysis operation and quality standards, basically technical annexes to the contract being signed with the winning bidder(s).

4.2. The Model
It was decided that out of the 8 centers identified (2 of them located in Bucharest, capital city), the bidders will only be allowed to bid for a maximum of 2 centers, trying to encourage access to the market of more than one player. The model that was chose was full provision of services, object of the tender and contract. As all existing centers were at the moment of the bid part of general or nephrology hospitals, the location(s) were made available on those sites, with possibility and incentives to move out the chronic care in new outpatient locations.

The Financial model developed by the specialists together with the local counterparts took into consideration the basics (facilities upgrading, acquisition of machines, water treatment system upgrading or building etc) but also the specificities: the provision of the dialysis services, including, without limitation, equipment, staff, medical supplies, pharmaceutical supplies (including EPO when clinically prescribed), maintenance, utilities, and any required transport of medical staff and/or equipment to/from the residences.

5. Sources of financing (private, public, mixed)
Public through mandatory health insurance fund

6. Total declared investment cost
For the price of Euro 110/ renal dialysis session and Euro 11,000/peritoneal dialysis patient/year (paid by NHIF exclusively), with an average of 15 machines/center and with 3-dialysis sessions/week/patient by November 2005, the private clinics had spent about 4.6 million USD on new equipment, including dialyzers and crucial water treatment facilities. By 2008, when IFC hired an external team of international consultants to evaluate the project, the privately managed clinics had further upgraded existing facilities in public hospitals, and had begun building new ones.

7. What info has actually published/disclosed on each PPP project and on the PPP program overall
As required by the IFC standards, the entire process was made public and early consultations with private bidders, hospitals representatives, medical associations and other interested parties were held. As required by the Romanian legislation, all bids were published in the Official Gazette and the PPP contract model, including all technical annexes was part of it, no major change being allowed after announcement of the winning bidder(s). The financial offers of the winning bidders were not made public, but only the winning ones for each center; this was represented by the commitment for the highest level of investment for each facility. The same rule applied to all
PPP projects developed in the initial program with the support if the IFC and WB, but it is not necessarily the case for the roll out of other individual PPP projects; this was due either to legislative changes, lack of transparency from the implementing agencies (sometimes hospitals themselves) or has not been investigated/researched yet.

8. **Main lines of contractual framework, including duration of the contract, flexibility of the contract, contractual obligation, risk allocation and governance and administration**

The initial duration of all contracts was established at 7 years, with the possibility of another 7 years extension if the location is moved outside initial Hospital (under certain conditions) and expression of interest for the new center submitted at the end of the 5th contract year. Six months prior to the termination date, NHIF was supposed to conduct a new tender to award a new Contract or make any other arrangement as necessary for the continuity of the provision of services following the termination date. The Provider was to retain all existing property rights over the new facility, if one has been established and any movable assets in the existing facility and new facility. The provider and the new provider were to agree on mutual accommodation during the transition period and must ensure the continuity of the provision of Services during this time.

The ownership of the newly rehabilitated center within the Hospital remained with the Hospital, exclusive of mobile assets; the ownership of new facilities to be built outside Hospitals was to remain with the private operator. On a different note, the contract with NHIF was subject to certain conditions, but no different from any other obligations of a public or private provider in contract with NHIF. Some of the prescriptions in the PPP contract were even stronger compared with the public sector, especially the ones mentioning continuity of care and enforcement of newly introduced dialysis norms and standards.

Inflation indexing was addressed by the contract tariff being guaranteed, awarded and signed in Euro, at the national Bank of Romania exchange rate for payment dates. Managing changes in the volume and type of demand over time was subject to yearly contracts with corresponding local subsidiaries of NHIF that adjusted the volume and capability to pay.

The workforce issue (a major challenge in a post communist country when transferring operation of public services): medical and auxiliary staff was taken over entirely from the public facilities for one year; at the end of that period, the provider had the liberty to hire/fire staff and establish salaries rate under the private companies law, but respecting the national organization, delivery, performance and quality dialysis standards.

Private sector capacity and risk appetite among potential local and/or international operators, investors and/or creditors was high, as 4 major international players in the dialysis area competed and won the 8 centers: B. Braun (German), Baxter (Unites States), Fresenius (Germany) and Gambro (Sweden). In the following years more local providers enrolled in the model and either applied for other centers or merged with one of the international players to operate one or more centers.

9. **Payment mechanism and Cost per patient**

At the time when the PPP process had started, the dialysis services were reimburse by the NHIF and some MoH fund in a fragmented, inefficient and non transparent manner: Hospitals were contracted by NHIF for hospitalization days tariff, for type of case treated (DRG), with consumables and drugs partially paid by the MoH National Health Programs. The introduction of those PPP contracts redefined the services and the payment...
mechanism: haemodialysis session or peritoneal dialysis patient/year, mechanisms that are still in place at this time (2013). The tariffs are updated yearly by NHIF with available funds and applied at the same maximum rate for all providers, public and private, no less than initially included in the PPP contract.

The initial tariffs were Euro 110/haemodialysis session and Euro 11,000/year/patient for peritoneal session, accounting yearly for contracts (cumulated for the 8 centers) of about 30 million USD; an evolution of tariffs paid by NHIF at the time of the IFC independent evaluation is presented below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>164 USD</td>
<td>155 USD</td>
</tr>
<tr>
<td>2007</td>
<td>N/A</td>
<td>147 USD</td>
</tr>
<tr>
<td>2008</td>
<td>147 USD</td>
<td>147 USD</td>
</tr>
</tbody>
</table>

The percentage of dialysis services money within the total public expenditure was almost impossible to be calculated before 2003, due to the fragmented and diverse source of funding for the services. Starting with 2003, the percentage is quite stable, of about 4% (over 160 million Euro) from total NHIF budget (when compared with 45% being paid for hospital services in general).

The independent evaluators hired by IFC determined that the project successfully leveraged significant private-sector investment, achieved important treatment-cost savings for NHIF, and improved quality-of-care for patients. Between 2005 and 2008, private investment in equipment and new facilities totaled nearly 40 million USD. At the same time, the national health insurance agency was paying nearly 4.5 million USD less for dialysis treatment while the number of treatments was increasing.

10. Monitoring /reporting mechanisms from the side of the public/contracting authority
Contrary to advisor’s (IFC) recommendations and the initial government intention, no national monitoring agency was established for supervising dialysis or health services. Also, no specific audit was performed, but the NHIF is subject to yearly inspection from the Court of Accounts and neither officially nor unofficially in the inner circles were any disputes or negative aspects disclosed.

In terms of reporting of the medical activity and financial accounts, the same rules apply for both public and private sector operators. Monthly, quarterly and yearly standardized volume and performance reports are submitted to the NHIF, as stipulated in the yearly framework contract for medical services provision in the Romanian health system or by the yearly contract for payment of dialysis services (signed between the operator and the local branch of the HIF)

11. Integration/ referral with the rest of the health system
As any other private or public dialysis services provider, the patient needs to have a dialysis referral from a nephrologist working in a clinic that has a contract with the HIF, as well as basic tests that certify the condition of chronic (or acute) renal failure (or specific ones for peritoneal dialysis). Once registered with the specific provider, the sessions are delivered in the clinic, transportation to and from home, monitoring, small surgery (fistula initiation and maintaining etc) being included in the package and the responsibility of the provider. For complicated and complex cases outside the scope of the
standard dialysis, the clinic can refer the patient to specialized units in the public or private system, as any other public or private provider.

12. Lessons learnt from the experience, both positive/negative
This project sparked significant investment in clinic renovation and modernization, but did not catalyze the investments in new clinic construction to the extent that had been anticipated. Part of the reason for this was that the bids and contracts did not explicitly mandate how much money was to go for renovation versus new construction, and some contractors concluded that their investment in new equipment and clinic renovations satisfied their commitment. In other cases, private operators were eager to start new construction and could not obtain the necessary permits. Frequent regime changes made it difficult for contractors to win the support of important political actors. Local authorities that had not been included in the pilot’s development process also delayed new projects. Many of these problems have finally been resolved, new clinics are now being built, and the operators of privately managed clinics are currently applying for new contracts. Because of the success of the PPP model, the Government has since extended this model to another 62 outpatient dialysis centres across the country, covering roughly 75 % of public patients at the level of 2011.

Several aspects were considered critical and crucial by both the Government and the adviser (IFC) and used as a model for future transactions, influencing the planning process for the health services by MoH and NHIF in Romania:

- introduction of national dialysis standards, up to date and in line with international best practices
- separation of acute and chronic dialysis services, both as delivery and location
- as a direct result of the 2 items above and not only, improved quality and access
- opening the (private) market for competition (2 centres/ bidder)
- introducing the PPP concept into the country and health system
- changing the health care provision setting to a more appropriate one
- keeping the door open for innovation (dialysis at home, for example, only affordable to be piloted by the private sector)
- performance based contracting and payment: contracting with public health insurance based on certain quality and performance standards (based on output and quality), extended at national level and used as model for other services contracting

13. Results of audit/external monitoring / evaluation
The independent formal evaluation done by IFC (and the only official one ever performed) found that privately operated clinics perform frequent regular maintenance and provide patient counseling and education services that are not typically available in their public counterparts. Privately run clinics absorb new patients by installing additional dialysis units and water treatment systems, whereas the public clinics were found to be compromising care by introducing night shifts, and providing less frequent treatment. In publicly run clinics, nineteen percent of patients received less than three treatments a week, the optimal level. The comparable number in privately run clinics was 6%. All eight of the privately run clinics are required to ensure the safety and quality of their facilities and equipment with professional preventive maintenance contracts, and regular chemical and microbiological tests of their water. Only half the public clinics surveyed did this.
14. Bibliography

1. Romania Health PPP Law no 178/2010
2. Government Decision 1487/2004 for contracting pilot centers for dialysis services
3. NHIF Yearly Framework Contract for contracting and payment of medical services within the social health insurance system of Romania – starting with 2005
Summary Data Sheet of the Romania Dialysis Services PPP Transaction

Services/ Facilities being tendered: 8 dialysis centres providing the full range of renal and peritoneal dialysis services, acute and chronic, inpatient and outpatient (initially). Aiming at locations providing exclusively chronic outpatient dialysis.

Location: central level (tender), local (county) level (services/ facilities).

Advisory services for the transaction: IFC Advisory Services.

Estimated transaction value: 3-5 million USD/centre (investment, excluding operation).

Year of tender and contract signing: 2003.

Contract duration: initial 7 years, possibility of another 7 years extension if the location is moved outside initial Hospitals (under certain conditions) and expression of interest for the new center is submitted no later than the end of the 5th contract year.

Tender major criteria/ bid price: highest investment value; prequalification: volume of services and income level from dialysis services, high target.

Fixed reference tariff for the bid: 110 Euro/renal dialysis session, 11,000 Euro/year/peritoneal dialysis patient.
Case Study: Germany

PPP Models in Germany

1. Scene for PPP in health sector in Germany

There were 1780 general hospitals registered in Germany in 2009. They can be separated into three types according to their ownership:

- Publicly owned hospitals
- Non-profit private hospitals belonging to the faith organisations
- Privately owned hospitals (Franchising)

Market share of general hospitals in Germany, Source: RWI, FDZ (2011)

The number of hospitals in the country declined by around 14% from 1991 to 2010, reflecting a reduction in the number of beds (-25%) and in the duration of stay (-44%) (Statistisches Bundesamt 2011). At the same time, the
number of inpatient cases has risen by 24%. This development demonstrates increased work efficiency, (B. Augurzky et al., 2012) but at the same time demonstrates the impact of the introduction of the DRGs, which led to reimbursement of the costs for treatments by a lump sum per case instead of a lump sum per patient day. Over the past 15 years, an increasing switch in ownership of hospitals in favour of private, profit-oriented companies has been observed.

Germany (under the Article 74 Nr. 19 of a Federal Constitution (GG) and Hospital Financing Act (Krankenhausfinanzierungsgesetz, KHG) has established a system of dual financing of the hospitals:

- Concurrent legislative powers shall extend to the following subject: “the economic viability of hospitals and the regulation of hospital charges”.
- KHG section 9 (1) the federal states bear the costs of investment out of the tax funds (for assets with average economic life of more than three years). At minimum, the hospitals have a right to claim the financing of their investment costs. The precondition for such funding is that the hospital is included in the state Hospital Requirement Plan (Krankenhausplan). In most cases the owners of the hospitals (municipalities, faith organizations and private enterprises) have to co-fund 20% to 30% of the investment themselves (matching grants).
- Operating costs are financed through the public health insurance funds via DRGs, supplementary remuneration and daily nursing rates, with specific rules for university hospitals and as such does not include any investment component.

Germany has an insurance-based model, where the health insurance companies act as a third party player for the actual health care received by patients, regardless of whether it is provided by state-owned or municipal hospitals, or hospitals owned and/or operated by the private or faith-based institutions. The number of hospitals operating in the public health care sector is strictly regulated by the Federal Hospital Financing Act (KHG), § 6 paragraph 1, which obliges each federal state to develop a Hospital Requirement Plan (Krankenhausplan), in order to ensure an adequate supply to the population of services provided by high-performing independent hospitals.
hospitals and to contribute to affordable prices. An important indication of the appropriateness of a hospital, its capacity and its departments is the occupation rate. The Hospital Requirement Plan paves the way for the cooperation and task-sharing amongst hospitals to ensure the overall supply of operating units is sufficient. The Hospital Requirement Plans (Krankenhausplan) are developed for a 5 year period, taking into consideration existing capacities and demographic changes (demand assessment) and it serves to avoid over provision of services. The Plans are developed under the guidance of the MoH of each respective federal state, hospital planning groups (varying from state to state), as well as regional hospital associations, Land associations of health insurance funds and often the professional associations of medical doctors.

With an estimated investment backlog of 30 billion Euro in 2012 (Augurzky, 2012), the tendency towards privatisation, mergers and outsourcing in the health sector increased as cash strapped municipalities, who could no longer afford to operate their units, saw a way out through transferring their assets to private hospital chain operators.

Under such conditions the design of the remuneration system of the hospitals is the prerogative of the German Parliament and hospital planning authorities of federal states (Neubauer 2007). According to the current legislation, hospitals do not incur sufficient capital costs and as a result there is a lack of minimum equity as a guarantee for the insolvency risk of hospitals (credit risk).

Further according to KHG (2005 para 1, II) the federal states are not allowed to grant subsidies that are related to specific operations which will limit a hospital’s planning and profitability. Obligations under the PPP contracts are strictly limited to operational performance and not involve any financial payment to the state.

2. PPP Law/Legal Framework/PPP Policy in Health
Franchising in the health sector is legally permissible, but such decisions are highly political and the number of cases open for franchising depends mainly on political will of the ruling party.

There is no specific law on PPP in Germany. PPP is considered as a procurement mechanism and falls under the general procurement rules in public service (Vergabe-und Vertragsordnung für Leistungen (VOL)).

The PPP initiatives in the health sector (including accommodation and infrastructure models) may well be further influenced by the provisions of the following:

- **State aid regulations**: the state may provide support to the municipal institutions for their operations, but may not support the private partners working for this institution
- **Communal law**: especially if the particular project vehicle is financially supported by the local authorities
- **Tax law**: the issues of VAT, land acquisition, general taxation etc may have an impact when changing the legal status from public enterprise to GmbH (even if 100% state owned). However in September 2005 the
PPP Acceleration Act, ÖPP Beschleunigungsgesetz, was adopted to partially abolish the real estate transfer tax and to create open property funds related to PPP Projects (Schmachtenberg and Schenk, 2007).

- **Labour law:** the switch from public enterprise to any other form of ownership and legal status maybe influenced by the Law on Staff Wages Rates in public institutions or stipulations on the involvement of the employees on the management board. When hospitals are owned by municipalities – the wages for support services (such as catering, cleaning, washing) are based on the fixed rates for public employees and municipalities are bound to the higher rates available on the market. In private hospitals the municipalities tolerate that the new owner appoints other rates (sometimes 20% less for salaries) or outsources those services to external providers, although for political reasons public authorities sometimes do not want to outsource themselves.

During the meeting of the Ministers of Finance of the Laender in 2008 the decision was taken to develop set of the standard guidelines for examining profitability of the PPP model versus traditional forms of public investment. For PPP in the hospital sector, the guidelines on PPP procurement and establishment had been developed in the framework of the Practical Handbook on Hospital Legislation.

### 3. Types of PPP

Germany has used a variety of PPP models in the health sector. For the purpose of this case study we defined two common models which have been explored in more detail:

- **Accommodation and Service Model:**
  
  This model includes building infrastructure and providing the related services on the premises or within the publicly owned hospital. It is associated with hard facility management only, but may be extended to include non-clinical services or even para-clinical services (diagnostic or laboratory services). This is the most traditional PPP model which can be identified in almost all EU and non-EU states.

  - Leasing model: Private partner provide financing, building and facility management of the building which belongs to the public institutions.
  - Purchaser model (Erwerbermodell):

Under this model one can distinguish a few operational varieties (Partnerschaften Deutschland, 2012), with or without construction:

- PPP projects with **construction of facilities** for existing public hospitals and installation of the medical equipment with further division into the:
  - pure infrastructure installation model and its operation or
  - additional provision of clinical services;
- PPP projects with installation of equipment in the existing infrastructure of a public hospital can again sub-divided into:
the infrastructure operation or infrastructure operation and provision of the clinical services
Each of these operational variations can be organised through different legal forms: Leasing (Mietkauf); Purschaser (Erwerbermodell); Owner model (Inhabermodell) and Operator (Betriebermodell) (Huster/Keltenborn, 2010). The chosen legal form will depend on the objective of the PPP in each particular case and its integration in the work of the existing public institution.

- **Franchising:**
Transfer of assets to a private for-profit operator, but with strict control by the public authority. A public authority licenses a private company to develop (finance, build, own and operate, including medical services) a replacement for a public hospital or take over existing stressed public hospitals. The level of financial reimbursement for medical procedures undertaken by the health insurer (a public organization, not to be confused with the franchisor) is the same as for public or any other non-profit hospitals. Such hospitals exist within the Hospital Plan (Krankenhausplan) where their location and operation are clearly defined. Private hospital operators function in the same legal environment and are subject to the same payment mechanisms as any other municipal or faith-based hospital. The private for-profit provider has no right to “cream” the patients (adverse selection) and must accept any patient for any health care intervention offered by the hospital concerned. The four largest private providers are Helios, Rhoen Kliniken, Sana and Asklepios with total combined sales in 2009 of over EUR 7 billion, alongside other smaller networks, although 80% of all acquisitions went to the four players over the last 5 years. Such private hospitals are commercial enterprises and require a license under § 30 of the Industrial Code.

4. **Special Features of PPP Projects in the German Health Sector**
A major difference between PPP in the hospital sector in Germany and in the other EU member states is that private hospitals operating within the framework of the Krankenhausplan may be considered to be equal examples of PPP in the sector. All hospitals irrespective of their ownership status receive exactly the same DRG price for the services performed as well as being entitled to an equal proportion of annual lump sum grants (dependant on bed numbers) for medical equipment and hospitals are not required to prove where those are spent. The government has to pay the lump sum grant as soon as a hospital is included in the Hospital Requirement Plan and this is one of the largest incentives of private providers to acquire franchises for public hospitals. Furthermore, private hospital operators can also apply for funding of long-term investments from the federal state in the same way as public or non-profit hospitals can.

The difference between the application of PPP in the health sector in comparison with other industries is that the PPP projects carried out in Germany relate mainly to direct responsibility of the of the public sector. For example in the construction of roads or schools where PPP is being applied, land belongs to the federal states (Länder) which are themselves responsible for provision of services, whereas in hospitals the public authorities are
“funding organisations for legal ownerships of third party organisations.” In allocating the funding/grants to the hospitals the federal state is not supporting facilities that it actually owns.

The decision to use PPP is up to the owner of a hospital (mostly municipalities) and not a decision of the respective federal state or hospital itself. Such decisions depend on the economic development of the region and fund availability in each specific region and strongly relates to unemployment rate – sometimes local authorities want to generate funds to afford social payments for unemployed citizens through relinquishing fixed assets (including hospitals/ franchising). Moreover, communities are obliged to cover the hospitals losses do so at the expense of the other social programmes in their region. In most cases this is the main reason for franchising the hospitals.

Another special feature of PPP in the hospital sector is related to the dual system of hospital funding. Even though there is no specific regulatory framework for the promotion of hospital - PPP today, the owners may apply for PPP funding out of governmental investment subsidies for hospital units which are included in the Hospital Requirement Plan (KHG). According to KHG only investment costs and not operational or maintenance costs are eligible for the investment subsidy.

In the design of PPP for the hospital sector in Germany, one should clearly distinguish between the investment costs and current operating costs, where the investment costs will be financed by the federal state budget (public) and the current costs will be financed by the health insurance funds/users. The situation is becoming even more complex when it concerns University Hospitals which need to meet the strict requirements of the *Hochschulbauförderungsgesetz* (HBFG) to receive federal subsidies. Wages of the public sector employees, university hospital employees are considered to be public employees, have to be divided into eligible and ineligible components. Such distinction is regarded as difficult.

A clear identification of the components to be funded by KHG will easily allow the funding since the debt service of several years of the classic funding will only be replaced by the PPP - fee. Services being transferred to the private sector during the PPP process may include construction and facility management services as well as some services for patients, such as pathology services. Implementation of the PPP projects in health sector (and in hospitals in particular) require legal and economic powers in decision making. This can be done only through changes of ownership of the public hospitals in the form of public enterprise (KPMG, 2007). Such changes require time and political will and as the experience of the University Hospital in Hamburg-Eppendorf shows may require as long as eight years to legalise such changes. According to KPMG (2007), up until 2007 around 38% of the publicly owned hospitals have changed their legal status from public administration to commercial companies which allows them to attract additional funding.

Considering the challenges occurring during the re-registration of the publicly owned intuitions into public enterprises and the difficulties in the application of funding through dual financing, the franchising model, as experience
shows, remains the easier model for implementing PPP projects. By comparison there are a limited number of PPP projects launched under the accommodation and service model in relation to the number of transactions where municipalities have transferred ownership and operation from public to private networks.

5. Role of the Federal Government and Decentralised Decision Making in PPP

According to the Article 28(2) (1) of the Basic Law of the Federal Republic of Germany the municipalities and district self-administrations are responsible for primary health care, including both outpatient and inpatient services.

In Germany, the federal government (Bundesregierung), regional governments (Landesregierungen) and regional authorities (Gemeindebehörden) are the most important procuring authorities or public contracting entities (öffentliche Auftraggeber). The municipalities in Germany are mostly using PPPs to deliver local government services but they vary in their usage of the PPP model. According to estimates of KPMG around 80% of the PPP projects were initiated and implemented by regional government or regional authorities. Ten new projects with the value of EUR 500 million entered the market in 2005 with the total market estimated to be worth EUR 1 billion (OECD, 2006)

Each federal state has its own PPP Competence Center or PPP Task Force embedded either in the Ministry of Finance or the Ministry of Economic Development.

Source: 2nd annual meeting on PPP, OECD Conference (2009), B. Mueller: PPP Units, Overview Germany
Under the leadership of the Federal Ministry of Finance, with active participation of Transport, Construction and Urban Development Ministries the ÖPP Deutschland AG was established in 2008 – the structure, which is in itself a PPP between the public sector shareholders (federal, federal states and municipalities) and representatives of the private sector. The major aim of the ÖPP Deutschland AG operation is to promote the PPP initiatives, support both public and private partners in setting up the PPP initiatives in different sectors and increase private investment in the public sector.

6. First PPP Contract:

6.1. Franchising

In case of the PPP Model “Franchising”, it has long standing experience in the German health sector going back to 1984, when the Hospital Hürth was transferred to SANA group. As previously mentioned, an increasing number of privately operated hospitals has been observed since 1999 owing to a lack of financing in hospital fixed assets. Asklepios privatised five large Hamburg hospitals in 2005, whilst Rhoen Kliniken took over the Giessen/Marburg university hospital in 2009, creating a precedent of the first university clinic to be operated by a private provider.

6.2. Accommodation and Service Model

The first PPP contract for the supply of the equipment, construction of a facility, facility management and clinical services was signed in 2001 with PROHEALTH AG at the establishment of Rinecker Proton Therapy Centers (RPTC) in Munich, which has been in full operation since 2009 and serves 4000 patients annually.

Federal Government as well as several of the Länder became interested in using PPP to deliver infrastructure services in particular from 2005. By 2011 a
total of 159 projects in public construction where registered, including 8 projects in health sector (5%) and whilst a volume of 768 million Euro had been awarded in the health sector, a further 975 million was in the pipeline. (see attachment for the list of the largest projects)

In the same time several initiatives were abandoned, although the financial contract closure was carried out:

- Rostock: SANA returned one hospital in Rostock to the municipality due to a failure to be able to manage it properly – with no compensation or fines to either side;
- Essen: Protone Therapy Centers (PTC): design, build, finance and operate non-medical parts of the PTZ for over 15 years in Essen, capital cost: 135 million Euro, first PTC PPP worldwide with a project volume app 300 million euro;
- Kiel: PTC within the North European Radio oncological Center Kiel (design, build, finance and operate) with capital costs 258 mio Euro operated by the medical personnel employed by university clinic. Financial close of the project took place on March 18th 2008, start of construction was in August 2008 and was nearing completion. The plan was to use new precision methods of particle therapy in the Kiel centre to treat tumours in 3,000 patients per year, attracting patients from northern Germany and the Scandinavian countries. It has since been found, however, that the large-scale facility can only treat 1,000 patients per year, and not 3,000. With this number of patients, the operation of the facility is not economically viable for the consortium of bidders including Siemens, Bilfinger Berger and HSG Technical Service, which had set up the particle therapy center as a public private partnership project with an investment of €250 million. In 2011 the Siemens group decided not to commission the particle therapy facility at the University Hospital Schleswig-Holstein in Kiel, giving its unlikely ability to make a profit as the reason.

7. Procurement Processes:
As soon as the private initiative goes beyond financing or lending to a hospital to include operation and/or facility management, the procurement process / contract is subject of the Law Against Restraints of Competition (GWB, § 99). The local authorities act within an open and restricted procedure, competitive dialogue and negotiated procedure.

This is also pertinent in cases where the private partner has already been identified, since further procurement is influenced by the Law on Procurement of Services for Construction (DeutschenVergabe- und Vertragsausschuss für Bauleistungen (VOB)) as well as the Law on Procurement of Services (Vergabe- und Vertragsordnung für Leistungen (VOL)). This poses serious difficulties for municipalities or hospital GmbH, as the contracts which include both construction and facility management, as well as medical equipment supply must be tendered separately. In the case of radiology or laboratory services there must be separate tenders (one for equipment procurement and another for service provision). Such procurement procedures lead to the situation where several equipment producers are interested in establishing a PPP with publicly owned hospitals, but are restrained from the further
proceedings as there is no assurance that the contract will be awarded to the same private partner. In the case of equipment supply three offers must be considered.

For franchising, the municipalities use the EU procurement guidelines and directives (e.g. 2004/18). Such procurement processes are open to foreign companies and includes setting the data room, with the presentation of a letter of interest, indicative offer and selection of 3 to 4 providers with whom the municipal authorities will start negotiations and, after careful evaluation, reach the final decision and publish it.

Drafted contracts must state that services provided are for public authorities so that the services remain eligible for financing through investment subsidy. For hospitals to remain eligible to receive such a subsidy, it has to be agreed with the hospital planning authority and the respective state ministry. However it is also possible to implement PPP without state funding. It requires sufficient revenue to repay private funding means. The rather theoretical possibility is not applicable in practice at the moment and has to be matched with the funding regulations of the federal states. Under these circumstances contracts are no longer bound by requirements for funding. This kind of free funding will be possible in only a few cases. In the hospital sector the achievable savings are usually lower than in other fields of application for PPP (McCleary, B. 2002). A feasibility study for PPP depending on implementation variant at University Hospital of Cologne showed savings of only 1.3% - 7.9%, compared to the public sector financing (KPMG, 2007). In the hospital sector, it is therefore advisable to design PPP so that it meets requirements for public funding.

8. Contract Duration:
   - Franchising: These are mostly long term contracts with a duration of 25 years, which can be extended for an additional five years, if not cancelled a year in advance.
   - Accommodation and Service Model: contract duration ranges from 5 to 25 years.

9. Payment System
As soon as the health service provider is included in the public health care system (Hospital requirement Master Plan) they are paid exactly the same per procedure as the public sector (DRG case mix) by the health insurers.

Furthermore the private hospital service providers receive the same annual lump sum financing from the federal state for short term assets as hospitals with the other ownership types. Such a stable financial base has allowed the private hospital operators to become an important player in the system. Furthermore they can apply for grants for long-term financing from the federal state.

10. Share of PPP Contracts in Total Hospital Investment Plans
By 2012 a total of 9 new infrastructure projects in health sector had been contracted out and 12 projects were under consideration - all aiming at outsourcing either the infrastructure or equipment installation only. In 2009 the investment share of PPP’s in health sector infrastructure projects was only 8.2% (4 projects) from the overall project number in the country.
In general it is estimated that approximately 2% or even less were allocated for PPP contracts using the accommodation and service model (data are difficult to obtain as hospitals are not requested to report on this data). The share of franchised hospitals as previously mentioned in section 1 amounts to around 25% of all hospital contracts.

11. Value for Money Considerations on a Macro Level
Among recent major findings one the following are worth mentioning:

- Franchising:
  - In the last decade major operators in the last decade paid high prices for what turned out to be not very exciting returns (especially for university hospitals as well as in those cases when it was a strategic decision to enter the market via the hospital chains);
  - Private operators are often requested to co-invest in future infrastructure from their own funds;
  - It is often not permissible to change the staff wage rate in the first 12 months of the contract.

- The professionalism of hospital managers in privatised hospitals and those facilities operated or managed by private partners has increased (eg. better able to exploit DRG system)

- The expectations of PPP regarding higher efficiency of construction and/or and faster implementation has been endorsed by the recent studies

- Municipalities that have anticipated greater efficiency as a main advantage from PPP projects are not generally disappointed by the result. Using a method of calculation which considers the interest and compound interest effects of future payment flows the average efficiency gains are 10% (Espigares J.L.N., Torres, E.H.)

At the same time the experience of the abandoned PTC at several locations has influenced the capacity of the public authorities to provide certain services needed for better and more efficient treatment.

Further, no remarkable negative impact has been observed at a macro level with the use of either type of PPP in Germany. On the contrary many players see the attraction of private financing in the hospital sector as closing the gap in financing health infrastructure, though it cannot be seen as the only way out. The issue of the privatisation of the University Hospital Marburg/Giessen, for example, led to the requirement to financially support the operator by the state in order to ensure contractual obligations taken were upheld.

Siemens is interested in building PPP structures, because it is interested in selling the equipment to beat the competition from other producers, but they are usually requested to co-finance such partnerships leading to higher prices for facility management. If a community cannot get access to cheap loans or grants for infrastructure, hospitals choose PPP schemes, which often become more expensive than if it had been managed by the hospital itself. If a
hospital receives a loan, guaranteed by the municipality (*Kommunale Ausfallbürgschaft*), interest rates are often unbeatably low at 2.5%. But often the municipalities are not allowed to give these guarantees, because they are over-indebted. At the same time the establishment of such partnerships leads to increased service level and quality, as well as allowing the hospital to change the case mix and increase the receipts from health insurance funds for changed DRG case mix.

**12. Risk Transfer Models/Results**
According to the requirements of current legislation, the public authorities (*Länder*) should secure service provision and stay in control over information having control rights and access rights to the hospital. For this reason the PPP contracts should always include fines or other financial payments in favour of the public partner in case the private partner does not fulfil its obligations in this regards.

**13. Room for Innovative Approaches**
The most important features of German PPP:

- Health insurance companies apply the same payment mechanism and tariff levels (DRGs adjusted by case mix) to all hospitals regardless of the legal form or classification of the public or private or faith-based operator.
- Hospitals are subject to the Government controlled Hospital Plan, approved annually or in 5 year cycles which determines which new or replacement hospitals may be built where, ensuring excess capacity is avoided. The Hospital Plan (*Krankenhausplan*) is not dynamic at all. Once a hospital is included, it may stay indefinately, despite the initiatives of the health insurance companies to close them down. Many hospitals have already celebrated 120 or 130 years of service. On the other hand it is nearly impossible for a new provider to become part of the Hospital Plan. So the only possibility for private institutions to get access to the Hospital Plan is to take over the hospitals from municipalities and thereby expand their market.

**14. Experience Positive/Negative/Lessons Learnt**
Studies in 2007 and 2008 (Herr, A., Tiemann, O.) found clear evidence that public hospitals have higher efficiency than hospitals with other forms of ownership, (private non-profit and private for profit) – public hospitals are able to use the available resources most efficiently to produce the given output. Efficiency is only way of measuring performance (private for profit may choose to maximise their profits (financial surplus) by maximising revenues instead of minimising input at a given output). In another study (O.Tiemann, J. Schreyögg, 2011) it was established that private hospitals outperform PFP and PNFP up to a size of approx. 1000 beds. From 1000 beds PFP operate with greater efficiency, but most PFP operated hospitals have 50 to 800 beds. Efficiency is even low in competitive markets in geographical regions with many competitors.

Public for profit hospitals provide higher quality of care, measured by risk adjusted in-hospital mortality rates, compared to the other types of hospitals, contrary to the common assumption that public for profit hospitals seek
profit by increasing efficiency at the expense of quality of care. There is also evidence that PFPs operating in more competitive environments have improved their quality management and hospital outcomes in order to attract the patients. It is suggested that the strategic decisions for transferring hospitals to private operators were wrong: franchised hospitals are too small and they operate in areas that are too competitive.

In another study (Wörz) it was found that private for-profit hospitals were able to generate significantly higher revenues per case on average than hospitals with other forms of ownership.

Further, Tiemann O., Schreyögg, J. (2012) stated that conversion from public to PFP status was associated with an increase in efficiency from between 2.9 and 4.9% - increase in efficiency is permanent from the start of the process. The efficiency gains after a conversion were achieved through substantial decreases in staffing ratios in all staff categories with the exception of physicians and administrative staff. The efficiency gains of hospitals converted to PFP were significantly lower in the DRG than in the pre-DRG era. Result suggest that converting hospitals to PFP status maybe an effective way to ensure that scarce resources in the hospital sector are used more efficiently

The franchised PPP hospitals have, in most of the cases a professional supervisory body and profit oriented management. The supervisory body is more homogenous and its members pursue similar interests: efficient provision of the hospital services and on-going improvement of its own competitive position. A certain level of independence from local government decision making (especially in terms of financing the infrastructure and fixed assets), makes it easier for the management of such a hospital not only identify the rationalisation potential but also to exploit it.

A study by Augurzky et all in 2012, published in Fact Book “Privately Owned Hospitals” has revealed the following findings:

- Recent “privatisation” does not show any specific trend of cherry-picking in the regions by private providers. Private hospitals in general have a higher share of beds in specialized hospitals, but participate in rural basic care to a similar extent by comparison with the non-private hospitals.
- Privately operated hospitals have proportionally higher material costs compared with other ownership types, but as the percentage increased in all ownership types hospitals between 2005 and 2009, these higher costs might be explained by a higher ratio of services performed by external entities and as such the privately operated hospitals do not spend less money on medical infrastructure than the other owners.
- The study does not provide any indication that private hospitals save on medical supplies at the expense of their patients. There is evidence that those hospitals make a disproportionate contribution to the treatment of patients suffering from severe conditions, thereby ensuring the acute care. In relation to the proportion of large medical equipment units there are almost no differences by ownership type.
- The average age of patients treated in those hospitals is higher than in the other hospitals and this relates to higher income mix index.
average a full-time employee in privately owned hospital generates more revenue, i.e. more case-mix points, but at the same time does not really have more patients to care for. They do not treat any more or any fewer privately insured patients.

- The quality of services has been analysed based on the quality data of the Federal Agency for Quality Assurance and reveals that there are no disadvantages and private hospitals show qualitative less frequently and among those which are audited less. A study by the TKK showed that in terms of patient satisfaction, there are no ownership specific differences in this regard, since it lies in the range between 77% and 80% in all ownership types.

- Personnel costs at roughly 57% of gross costs and are proportionally lower with private providers, which seems to allow a higher degree of performance linked remuneration and flexibility in individual employment contracts. There is a tendency that performance linked remuneration results in higher productivity and a further tendency to retain more productive staff. Due to savings on salaries for support services salaries, private chains pay higher salaries to medical staff, whereas the communities are bound by state rates.

- Private hospitals show higher EBITDA margin (including government grants) at 10.6% of income, which is significantly higher than non-profit (6.3%) and municipal (5.9%) hospitals, thus they can use capital more flexibly to finance re-investment to preserve assets or to finance debt and equity capital for investment.

**Minimum EBITDA margin**, Sample calculation; in %.
Source: HCB, RWI. – Assumption: In future the special item share is only 2/3 of its current level; attenuated variant: lower rates of depreciation and return on EC private = 5% and nonprofit = 0%.

- The figure below shows that only 17% of private hospitals have no capacity to invest, whereas 47% of not-for-profit hospitals and 46% of municipal hospitals do not have such capacity. The privately operated
hospitals rely less on public funds, but they pay significantly more taxes than other hospitals with other forms of ownership.

Investment Capacity of the Hospitals, Source: HCB, RWI; FDZ (2011). It is suggested that quality indicators, as well as, data on results after long term hospitalisation should be made available to the public. Experience shows that after the introduction of quality reports, obliging hospitals to deliver data regarding the quality of care for specific conditions have been an important and valuable decision in influencing quality management of hospitals regardless of the form of ownership.

There is no evidence that hospitals, which got engaged in traditional PPP projects gained higher efficiency, as the overall efficiency of a hospital is influenced by factors, which are not directly connected to the financing and operation of investment, for example: the professionalism of management of medical and non-medical processes; quality of services; reputation within the population of the catchment area and management skills of the administration.

Traditional PPP projects were mostly organized by hospitals, which had no access to financing institutions, because of lack of equity or securities, such as guarantees from the state.

A lot of traditional PPP projects were initiated by university hospitals, due to the fact that the financial resources of the HBFG (Hochschulbauförderungsgesetz), which is valid for university hospitals, are much more limited than those of the KHG (Krankenhausfinanzierungsgesetz) used by other hospitals.

Annexes:

Annex I: Possible distribution of risks in PPP contracts in health sector.

Annex II: Recent PPP Projects in Health Sector in Germany (accommodation and service model).
15. Literature

Which type of hospital ownership has best performance? Evidence and implications from Germany, O. Tiemann, J. Schreyögg, R. Busse, Eurohealth Vol 17, No 2-3, Health Policy Development, September 2011

Changes in hospital efficiency after privatisation, O. Tiemann, J. Schreyögg, Health Care Management Science, February 2012


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Project Case Study Asklepios Kliniken, Hamburg

1. Type of PPP, structure of the arrangement, services to be provided

The Municipality of Hamburg was the owner and operator of 10 hospitals, which were united 1981 within the Landesbetrieb Krankenhäuser (LBK), and became a legal independent entity in 1995. It became an “Anstalt des öffentlichen Rechts (Public-law institution)”, a construction, which was erected by law for the purposes of the LBK Hamburg only. Because of increasing losses one hospital was closed and two hospitals were integrated into others.

In 2003 the LBK had liabilities of 478 mln euro, and an accumulated deficit of 277 mln euro. More than 300 mln euro were needed for the modernization of the hospitals. Such investments could only happen with high subsidiaries and loans from the Municipality of Hamburg. Under these circumstances only reduced modernisations of medical equipment and construction of new buildings would have been possible, because of the problematic budgetary situation in Hamburg. In order to keep the medical treatment on a high standard, to strengthen the medical region of Hamburg, and to protect the employments, the Municipality of Hamburg decided for a partial privatization the LBK.

Aklepios was founded in 1984 by Dr. Broermann. With currently 106 hospitals, 18.500 beds and 44.500 employees, Asklepios is one of the leading hospital service providers in Germany. The turnover of the Asklepios was 2,5 bn. euro in 2011.

In 2005 the LBK was partially privatized to Asklepios. In the first phase 49,9 % of the shares were transferred to Asklepios, which also took over the operating business. In 2007 additional 25 % were transferred, so Asklepios got in total 74,9 % of the shares of the LBK, while the Municipality of Hamburg kept a blocking minority of 25,1 % (major strategic decisions like buying or selling of shares, companies, shares of companies, land or other long term assets with high volume need the approval of the Municipality, as well as changing of the legal structure and the articles of the association).

Now the “Aklepios Kliniken Hamburg GmbH” is the biggest hospital cluster in one location in Europe. It covers all medical disciplines and functions of a tertiary care hospital.
2. Design of the PPP and award procedure

In 2003 the Municipality of Hamburg decided a partial privatization of the LBK.

A referendum of the population led to the result that only a partial privatization can be realized. In 2003 the Municipality offered a minority share of 49.9 %. Asklepios GmbH declared its interest in acquisition of these shares of LBK. No other offer was acknowledged as to be competitive. Then the Municipality decided in 2004 to sell the majority of the shares. Two other bidders, which were shortlisted 2003, were informed about this decision, but none of them offered a new proposal. One hospital service provider declared interest in buying a minority share, but cancelled his offer in May 2004.

Three new bidder didn´t submit qualified proposals, and therefore were rejected. Two bidders were only interested in the acquisition of single hospitals. Another group was only interested in the outsourced service company of the LBK.

For a certain period any company, which signed confidentiality agreements and fulfilled other necessary obligations, had access to the relevant documents for getting a clear picture about the economic situation of the company, for example financial statements, statistics, protocols etc (so called virtual "data room"). But none of the bidders took advantage of this offer.

The final negotiations led the Municipality to the decision to sell the shares of LBK to Asklepios. Within the partial privatization, the construction and operating business of the hospitals of the LBK were sold to Asklepios. Among them hospitals were Altona, Barmbek, Eilbek, Harburg, North, St. Georg and Wandsbek.

The land was not part of the transaction, but stayed within the property of the Municipality of Hamburg. Also the shares of the LBK at the Bethesda – Hospital Bergedorf were not sold to Asklepios.

Because of the intervention of the antimonopoly agency, the hospital in Eilbek had to be transferred to another hospital service provider. Before the partial privatization, Asklepios was already the owner of the hospitals in Rissen, Hamburg, and Bad Schwartau, Schleswig Holstein, close to Hamburg.

The Agency declared that Asklepios would get a market dominance in the hospital sector in Hamburg in case they would run all of the former LBK-hospitals. So Asklepios and the trust agency decided to take the hospital in Eilbek out of the portfolio.

3. Sources of financing (private, public, mixed)

Akklepios paid to the Municipality of Hamburg a cash injection of 207.5 mln euro, and guaranteed the payment of additional 38.5 mln euro. This amount was paid within the following years. Furthermore Asklepios and Municipality Hamburg agreed on a profit-share up to 75 mln euro for the Municipality of Hamburg.

Beside the cash payments, Asklepios contributed in kind into the new company Asklepios Hamburg GmbH, where the Municipality of Hamburg has 25,1 % of the shares. All together it led to a total price from 243.6 mln euro up to 318.6 mln. euro for 74,6 % of the LBK-shares. These sums supposed to be equal to the value of the hospitals. The planned profit share of 75 mln euro
was not realized to date, because the operational results from 2005 to 2009 didn’t meet the planned expectations.

After the PPP-franchise of Asklepios, the investment backlog in municipality was reduced. Between 2005 and 2010 Asklepios invested more than 40 mln euro equity per year into the hospitals of Hamburg. The budget of Hamburg was relieved by more than 100 mln. Euro each year due to fact that the Municipality doesn’t have to cover the deficits and costs for investments any more.

4. Total declared investment costs

Although only an investment of 30 mln euro per year was part of the contractual agreement between Asklepios and Hamburg, Asklepios invested more than 40 mln euro per year since 2005. Asklepios plans to invest additional 217 mln euro within the next five years. Within a decade Asklepios will have invested an equity of 500 mln euro for the hospitals in Hamburg.

Besides the equity from Asklepios, the hospitals received the same lump-sums for short term assets (medical equipment) from the federal state as before. The hospitals also apply for the funding of non-recurring larger investments from the federal states as they did previously under the municipal ownership.

Because of the contribution in-kind of the two hospitals of Asklepios into the Asklepios Kliniken Hamburg GmbH and the solvency of the Asklepios group, the Asklepios hospitals in Hamburg now have access to the capital markets without guaranties form the Municipality of Hamburg, for example commercial banks, for the financing of investments, which they did not have before the partial privatization.

The DRG-related payment per case for the covering of the operational costs kept the same like before the partial privatization. It is not possible to determine, whether the changing of the case mix index is a result of the partial privatization, or depending on the development of the demographic situation of the population, or the quality of documentation.

The center of Asklepios was established in Hamburg after the privatization of the LBK. In Hamburg is now the centralized IT, Procurement, Communication & Marketing, Insurance, Quality-management, Research and HR-development of the Asklepios group.

On the ground of the Asklepios Klinik St. Georg, the oldest hospital in Germany (founded 1190), the Asklepios Medical School was erected (AMS). Since 2008 there is a cooperation with the Semmelweis University in Budapest (founded 1769) for the education of medical students. In the first two years the theoretical training takes place in Budapest in German language. The finalization of the training is in Hamburg, where the students get the grade of a doctor, which is internationally acknowledged.

In Hamburg, Asklepios Kliniken Hamburg is the leading training institution with 1.400 training places. The “Bildungszentrum für Gesundheitsberufe (BZG)” is the central training institution for all medical professions of the Asklepios hospitals in Hamburg. BZG is the biggest training institution for medical professions in Germany. It is training 900 nurses, 180 operation nurses, 60 midwives, and 130 medical assistants. Each year 8.000 participants visit courses organized by the Asklepios “Ärzteakademie”, which is also producing the Medical Web TV for television.
Furthermore there is the “Asklepios Institut für Notfallmedizin (IfN)”, which is specialized in the training of pre-clinical and clinical emergencies.

The new established Asklepios pharmacy delivers drugs to all hospitals of Asklepios in Hamburg as a centralized pharmacy.

“Medilys” is the centralized laboratory of Asklepios in Hamburg. Each year more than 10 mills. analysis are performed not only for the Asklepios hospitals in Hamburg, but also for other hospitals of the Asklepios group and other hospitals in Hamburg and Germany.

Asklepios centralized and specialized its hospital services in Hamburg after the partial privatization. In each hospital the following investments and strategic changes were implemented:

5. Description of different clinics within the network

5.1. Klinikum Altona

New constructions were realized for the centralized Emergency unit, Eye-center, and Stem cells laboratory. A new angiography unit was installed, as well as a new CT scan for the emergency unit. The Medilys laboratory, which is delivering services for all Asklepios hospitals in Hamburg and other hospitals, was established in Altona. It got a new specialization in molecular biology, which allows much quicker diagnoses. Investments were also performed into the infrastructure, for example a new parking house was constructed, which improved the parking situation for patients, visitors and employees a lot. High investments were made in security, for example in fire alarm technology.

Besides medical equipment, infrastructure and security, Asklepios introduced the following new medical departments: Rheumatology, Clinical immunology, Nephrology and Physical therapy. This led to a steady increase in the number of cases and change in case mix index.

5.2. Klinikum Barmbek

The construction of a new building took place before the privatization. Asklepios developed the project into the Asklepios Future Hospital, were the processes determine the architectural design of the building. The Asklepios Klinik Barmbek is teaching hospital for the Asklepios Medical School and the Hamburg University Hospital. It is also home of the leading data processing service center in Europe. The following departments were newly established: Pneumology with Weaning-center and Sleep laboratory, Neurology with stroke unit, Center for Visceral medicine, including Visceral surgery, Gastroenterology, Hematology, Oncology and Palliative care.

5.3. Klinikum Harburg

Part of the investments was the modernization and extension of the hospital. A part of it was the establishing of a psychiatric unit for children und juvenile with 24 beds. Furthermore the following departments were erected: Spine surgery, Early-rehabilitation center, and Chest-pain unit. A new building with six floors for wards is planned.

5.4. Klinikum Nord

In Ochsenzoll new buildings were constructed for Psychiatries and Gerontopsychiatries. In Heidberg a Head-center was established, with four...
intraoperative MRI, and seven new OP-theatres. In Heidelberg also the central pharmacy was installed, which is one of the most modern pharmacies in Europe, and is serving all hospitals of Asklepios in Hamburg. Furthermore a department for Orthopedics and emergency surgery, and a department for invasive Cardiology were erected.

5.5. Klinikum St. Georg

St. Georg got a new building for a center for Heart, Vascular and Diabetes. The first Magnet Field Imaging System for clinical purposes was introduced in St. Georg. It enables new radiologic images with magnetic fields. The restructuring and modernization of the old building will be finished in 2013. The beam-therapy center will get three new linear accelerator, a new MRI, and the fastest CT of the world in 2013. With the new CT it will be possible to scan people with a weight up to 220 kg. Furthermore a department for interventional Angiography and a new center of competence for Urology and a spine-center were established.

5.6. Klinikum Wandsbek

Major focus of new investments was the integration of internal and surgical Intensive care to a unit with 24 beds. A new MRI and a left cardiac catheter were purchased. A stroke unit was established, as well ward for dementia patients within the geriatric department. With 180 beds it is now one of the biggest Geriatric departments in Europe. The Gynecology/Obstetric department was specialized in the field of incontinence and Neonatology. Spine surgery was strengthened and plastic surgery introduced.

6. Main lines of contractual framework, including duration of the contract, flexibility of the contract, contractual obligation, risk allocation and governance and administration

As a part of the contract the constructions and equipment as well as the clinical and facility management were transferred to Asklepios.

As the Municipality stayed owner of the land, they separated land which was not needed for the clinical purposes from the hospitals. Old unused buildings were replaced with the new ones and those are used for alternative purposes, for example apartments, shops, etc. This was not possible in the former legal constellation, where the LBK was the owner of the property.

With the transaction of the land from the LBK to the Municipality of Hamburg, the city gained 80 hectares of land, which can be used otherwise. Mostly this land is in central areas, well developed, and highly attractive for residential construction, especially in Altona, Barmbek and Ochsenzoll. Depending on the assessment, the value of this land is between 250 mln euro up to 500 mln euro.

In 2004 the LBK employed 8.681 staff members. In accordance to the law of Hamburg, the employees of the LBK were allowed to return to the Municipality in case of a privatization until 2010. As of 31.12.2010, 1.616 employees or 18,6 % took the chance and changed from the LBK to the public service of the Municipality of Hamburg. Most of them were used to the structure of public services and did not support the behavior of a private enterprise, which is for example combining salaries and benefits to the productivity and outcome of the work, whereas 7.065 or 81,4 % of the staff members decided to stay with Asklepios. By 2010 additionally 2.073 FTE were hired, so there was an overall
increase of staff members from 8,681 employees in 2004 by 457 employees (5.2 %) to 9,138 employees in 2010.

Asklepios had to pay for the reintegration of public employees 15 mln euro, and declared, to pay additional reimbursements for the real costs up to 3 mln euro. Until 31.12.2012 a total of 2.2 mln euro were paid additionally by Asklepios additionally.

In case Asklepios in not able or willing to fulfill its obligation for the delivering of inpatient services on a primary, secondary, and tertiary level in the catchment area of the hospitals, the municipality of Hamburg will resume control over the hospital again. The hospitals provide primary, secondary and tertiary hospital care, except academic research, though the Asklepios Medical School in Hamburg takes part in the training of students with its partner, the Budapest University in Hungary.

By the way, University hospitals are owned and financed by the Ministry of Science, and not the Municipality. Therefore it was not possible for Asklepios to get a University hospital with the partial privatization of the LBK. On the other hand, with the University hospital Eppendorf there is a strong service provider for hospital research and training in Hamburg already. Also The University hospital Eppendorf is providing primary, secondary and tertiary inpatient and outpatient care.

The tremendous liabilities for the pensions for the former public employees of the hospital were not part of the transactions, but stayed with the Municipality of Hamburg, as well as part of the interests for former loans.

As a shareholder with 25,1 % of the shares, the municipality of Hamburg is represented in the board of trustees, and is auditing the annual financial statements, takes part in strategic decisions, etc.

The municipality of Hamburg is not involved in the operating of the hospitals, nor in the administration, risk management, compliance and governance.

7. Payment mechanisms, especially in case of cost escalation

The Asklepios Hospitals are part of the Hospital Requirement Plan (Krankenhausbedarfsplan) of Hamburg.

As Hamburg is not only a city, but also a federal state, it is required by law to finance the necessary investments of all hospitals, which are part of the Hospital requirement plan, including the Asklepios hospitals. Therefore Hamburg pays the lump sums for the short term assets, and additional financing for long-term assets in respect to its budgetary situation. Besides, the Municipality of Hamburg is not obliged to cover any losses or to participate in additional financing of the hospital, except those entitlements foreseen by the hospital financing law.

Because the Asklepios hospitals are part of the Hospital Requirement Plan of Hamburg, the public health insurances have to pay the hospitals the necessary costs for the treatment of the patients. These operating costs are reimbursed through DRG system, which does not include payments for the financing of the investment costs. The DRGs consist of a base rate, which is negotiated each year between the public health insurances and the association of the hospitals in Hamburg (“Landeskrankenhausgesellschaft”). The cost weights for the more than 1,000 DRG are part of the federal law (“Bundespflegesatzverordnung”), and are equal for all hospitals in Germany.
In annual negotiations Asklepios Hamburg and the public health insurances agree on the type and number of DRG, each hospital has to provide. In this negotiations with the hospitals only insurances participate, which provides increase for more than 5% of the cases of the hospital in the previous year.

The Municipality of Hamburg does not pay a fee to Asklepios for the management of the hospitals.

In respect to the contract, the Municipality of Hamburg will get a share of the profit of the hospitals. Until 2012 no distributions of profits were paid from Asklepios to Hamburg.

The results of the hospitals improved from a loss of 44 mills. EUR in 2004 to a profit of 83 mills EUR in 2010.

8. Costs per patient

The average cost per patient is approximately 3.200 EUR and depends on the severity of the disease. After the privatization the costs per DRG increased because of the medical progress and the increase of the number of severe cases. Due to this fact, the hospitals also receive higher reimbursements out of the DRG-system, as a higher severity of cases goes in line with the increase of the Case mix index (CMI). The increase in the costs per DRG were more than compensated by higher reimbursements through DRG, as the hospitals get higher cost weights per case within each DRG. The revenues increased more than the costs, so the hospitals were able to make profits.

The number of patients increased by 13,6 % from 2005 till 2010.

9. Average hospital stay

The average lengths of staying decreased constantly, not because of the privatization, but because of the incentives of the lump-sum reimbursements system of the DRG, and the increasing quality of diagnoses like MRI, CT, etc.

10. Hospital/Staff satisfaction

Asklepios is publishing continuously benchmarks regarding quality, patient satisfaction and patient security in the information portal www.qualitätskliniken.de.

The structure of the staff was completely changed since the privatization. The number of Full time equivalents (FTE) in the administration was reduced from 2007 till 2010 by 17%, while the number of FTE in the medical fields increased by 14 %.

Asklepios conduct themselves constantly surveys regarding staff satisfaction in its hospitals in Hamburg.

Following surveys of Asklepios, there is no univocal tendency in the hospital. While parts of the staff still miss the old times, mostly younger employees, who were hired after privatization, declare higher level of satisfaction.

11. Lessons learnt from the experience

Franchising led to high economic benefits for the Municipality of Hamburg. Besides the purchasing price, the budget of the city is released by more than
100 mills. EUR per year necessary to support hospital. The tax payers of Hamburg were highly and sustainable disburden.

Also there is a significant increase of the value of the 25%-share of the Municipality of Hamburg.

The significant investments, the strengthening of the medical infrastructure and clinical research led to an increase of the medical portfolio in Hamburg and to improvements of the quality. As a result of this development there was a significant increase of the patient volume since 2004.

Out of the land, which was transferred from the hospitals to the Municipality of Hamburg, the “Quartier 21” was developed. On 13,8 hectares currently 21 buildings are modified to apartments, and 15 new buildings are constructed. Altogether 475 apartments for 1.500 people will be created with an investment of 300 mln euro. The Quartier 21 is nationwide and international a flagship for the new utilization of previous hospital buildings, and a lot of tourists and experts come to visit the site from all over the country and abroad.

Also areas of the hospital Nord in Ochsenzoll with a size of 45 hectares will be handed to the community.

Asklepios Hamburg became one of the leading site for clinical research in Germany and Europe. Asklepios proresearch (Hamburg) takes part in more than 180 multinational studies for more than 100 clients worldwide. Asklepios Hamburg became the leading private clinical research organization, in partnership with the universities in Basel, Charite Berlin, Heidelberg, Montreal, München, Ontario, Paris, Stanford, Tübingen).

12. Comparison with the similar state run facility on points

The situation in Hamburg is comparable to the one in Munich. Beside other facilities, the Municipality of Munich owns and operates 5 hospitals with more than 3.500 beds. These hospitals are:

- Bogenhausen
- Harlaching
- Neuperlach
- Schwabing
- Fachklinik Talkirchner Straße

The hospitals are mostly operated as stand-alone entities. There are only very few services centralized, and there is no cooperation between the hospitals in the fields of specialization. Often the hospitals seem to operate like competitors.

In 2012 the hospitals all together declared an operating deficit of more than 120 mln euro.

There are investment needs for modernization and reconstruction of more than 600 mln euro.

These investments cannot be financed neither by the Municipality of Munich, nor the state of Bavaria.
Project Case Study Uniklinik Köln

1. Introduction/Background

The Cologne University Hospital (Uniklinik) is with 1,400 beds the biggest hospital in Cologne, and treats approximately 50,000 inpatient and 200,000 outpatient cases per year. It has 8,700 employees and revenues of 600 million EUR per year.

The Uniklinik is building a new multifunctional clinic building to be known as U/B-West. The building will extend the existing diagnostic and treatment facilities of the central building. The project is part of an overall integration concept in which all the medical departments will be brought together under one roof. The aim is to deliver a significant improvement in functionality of the departments as well as to optimize the efficiency.

The newly built section helps the hospital to realize the major part of the master plan aiming to concentrate therapeutically and diagnostic units in one building. With this common infrastructure redundancy will be avoided, procedures will be optimized and the overall area will be reduced. As a consequence the costs of logistics, cleaning, maintenance and energy can be reduced significantly. Merging the outpatient units for example reduces the necessary area by 2,000 square meters. Patients and employees benefit from reduced distances, more modern equipment and more efficient procedures.

As a starting point the room and function plan for the whole hospital was broken down into the requirements for the new unit. An overall area of 8,900 square meters (app. 96,000 square feet) was planned.

This contains:

- Radiology
- multidisciplinary Surgery
• A Policlinic unit containing urology, dermatology and anesthesiology.

In the U/B West 8 additional OP-theatres will be installed.

Planning, construction, finance and maintenance of the building and the imaging diagnostics were delivered by the private partner.

In March 2006 different opportunities for PPP-solutions were developed. A European competition started in spring 2007, the contract with the private partner VAMED was signed on January 11th, 2010.

There was a tender process organized in accordance to the VOF (“Verdingungsordnung für freie Leistungen” (Contracting regulations for free services)). The tender included requirement from the private partner to

• Finance
• Plan
• Construct
• Procure the equipment
• Provide Facility Management after putting it into the operation

Part of the tender was the functional descriptions, the necessary space per room and other components, which were important for the construction and the procurement. So the bidder had to deliver proposals for all components of the tender. By this method separate tender in accordance to the VOB (“Verdingungsordnung für Bauleistungen” (Contracting regulations for construction services)), and VOL (“Verdingungsordnung für Leistungen” (Contracting regulations for procurements etc.) were not valid. This would have been the case if constructing and procurement would not have been part of the tender.

Because the volume was higher than 200,000 euro, an EU wide competition had to be organized.

Four bidders were shortlisted and were asked to submit their proposals. Two of them were invited for negotiations, because they presented a concept which was less expensive than the solutions of the other two. The major difference was the shape of the building in the proposals. The two successful companies (VAMED and HOCHTIEF) planned to build a block instead of an atrium construction with an areaway in the center. It is important to consider that in respect to the German law a lot of rooms have to have windows providing daylight. The concepts of VAMED and HOCHTIEF planned to build capacities inside the cubus, were daylight is not required, for example operation theatres. These models led to less square meters and less operating costs. This possibility was even surprising for the Uniklinik.

In the final negotiations VAMED was more flexible in respect to the price and won the contract.

The building process started in August 2010; completion was scheduled for August 2012 to ensure that the building is ready for use in autumn 2013.
2. Type of PPP, structure of the arrangement, services to be provided

The project is a PPP-building construction with a medical equipment part.

VAMED as the private partner of the Uniklinik in this project is responsible for the planning, construction, finance and maintenance of the new building and the imaging diagnostics.

The goal of the project is to centralize single diagnostic units and departments, and to avoid double-structures by unifying the infrastructure. Furthermore processes shall be optimized, and necessary space shall be reduced.

The completion is followed by a period of 25 years of operation with an option to extend for another 5 years.

3. Design of the PPP and award procedure

Usually University hospitals are financed by the Government according to the “Hochschulbauförderungsgesetz (HBFG)”. The Federal state Nordrhein-Westfalen (NRW) operates 6 University hospitals in Düsseldorf, Aachen, Münster, Essen, Bonn and Cologne. All these University hospitals need in total more than 600 million EUR for the maintenance or modernization of the buildings, which cannot be financed by the Government.

Therefore NRW started an initiative of privatization of all its University hospitals in 2004, which was stopped because of political reasons.

When the University hospitals tried to get a loan financing from banks, guarantees from the Government were required from the financial institutions, which could not be provided by the Federal state because of fiscal reasons. NRW signalized that a financing of the building might be possible maybe in 10 years. Although the Federal state finances already two parts out of three parts of the Master plan (New Heart center and modernization of selected buildings), these restructuring activities could not lead to the expected efficiency in case the construction of U/B West would have lasted another 10 years. For example, it would have been a problem for the Radiology department to find out where to move during the modernization of the current building, if there is no U/B West in place.

So an alternative financing solution was necessary. The Federal state did not allow loan financing, as interests are part of different areas of the cameralistic budget. The PPP solution was supported, because in this model the interests for the financing are part of the investment.

The Uniklinik had successfully implemented some minor PPP-projects before, which led to the decision of the board, to go for a PPP solution in this case. It was the clear decision of the Uniklinik, not to get only a financing, but to build up a long term partnership with a service provider, who will take care of the construction, maintenance, the operating of the building, and other services as well.

The expectations are: professionalization of the processes, Know-how-transfer to the staff, support in planning and management of the new center. Within the tender process a guarantor’s liability was required from the bidders. Furthermore the management of the hospital required to avoid interfaces between the current structures.
4. Sources of financing (private, public, mixed)

The project was financed by the private partner only. Public subsidies were not part of the financing.

Third parties were also not involved in the financing.

5. Total declared investment costs

The investment volume for the construction and equipment is approximately 81 mln euro. 50% were for the construction and 50% for the equipment. 100% of the costs were financed by the private partner.

6. Main lines of contractual framework, including duration of the contract, flexibility of the contract, contractual obligation, risk allocation and governance and administration

The privatization is based on a long term contract between the Uniklinik and VAMED. The contract contains:

- Planning of the building
- Financing
- Construction
- Maintenance
- Diagnostic services

Planning, construction, management, maintenance, and financing of the new building were transferred to the private partner. The hospital keeps ownership of the building and the equipment. The partner is responsible for the procurement and installation of the construction elements for example OP-tables, closets, and light signaling systems, and it's financing. Also the maintenance of the involved medical equipment was transferred to the private partner, because specialized know-how is required.

In accordance to the provided services for the building and the equipment, risks of planning, construction, availability, and financing were transferred to the partner. Risks related to the occupancy and the market developments remain with the hospital, as the partner is not able to influence these facts. There was no innovation risks considered for the installed equipment.

The partner has to take care of the interfaces to IT, equipment (medical and non medical) and building. The risk for reutilization after end of the contract period is covered by the hospital, because there is no reutilization planned after the contract period.

Payment mechanisms, especially in case of cost escalation

VAMED receives a fixed reimbursement for its services on a monthly base, as well as an incentive in accordance to defined parameters. A “malus” as a fine becomes due, in case an agreed service level cannot be achieved. This is mostly related to the availability of the capacities in the core time. Also a scoring system was introduced in the contract, which considers the reaction time and reconstruction time after malfunctions. Furthermore the hospital will keep parts of the payment starting five years before the end of the contract period, in case an independent study will reveal that the conditions of the building is not in line with the contractual agreements.

Into the project were only the installation of the construction elements OP-tables, closets, and light signaling systems involved. Mobile equipment was
not part of the agreement, because there seemed to be no clear borderline to the existing equipment possible.

The partner is responsible for the coordination of the architectural planning of the building. During the tender process for the planning and procurement of medical equipment, the hospital was supported by external consultants. The private partner hired additional architects for the planning of the medical equipment and the construction in accordance to the guidelines and specifications of the Uniklinik and the defined interfaces. The tender for the construction services and the medical equipment was conducted by the private partner. The private partner had to burden the risk for delayed supply and installation. For the realization of the construction and the building equipment, sub-contractors were involved, which were supervised by the architect.

The contract does not include fixed dates for the reinvestments, but the partner produced an orientation plan for the necessary maintenance and reinvestments as an appendix to the contract. These activities are planned for the construction, the building equipment, and the installed medical equipment, and are related to the life-cycle of the assets. The activities will take place, whenever it is necessary, but the conditions for the reimbursements are subject of the contract.

Both parties expect changes regarding the necessary services during the contract period, which will lead to changes regarding the remuneration of services as well. In this case the parties agreed that the private partner will present three different proposals, and the hospital might present one proposal as well, if it is needed. In case the parties cannot reach an agreement, an arbitration panel will be involved.

The three offers of the private partner should be presented to the Uniklinik after a tender process which has to be conducted by the private partner regarding the additional or changed services. These changes will be considered in case the realization would lead to higher costs or resource input for the private partner. This might be the case of extension of the building because of increasing patient numbers, or changes of the functionality program.

On the other hand there is a long term risk for the Uniklinik, in case changes of the occupation rate because of decreasing patient numbers will not lead to new contracts with the private partner. The Uniklinik would still pay the same amount to the private partner, which was negotiated, even parts of the building would not be used any more till the end of the contract period in 25 years.

The process was supported and audited by the companies Mütze Korsch, KPMG, PSPC, and Assmann. They were involved in the design of the functional program, contract, and calculations regarding the efficiency.

The fees to VAMED consist of two components:

- Investment costs
- Operating costs

The costs for construction, equipment, and maintenance as well as its financing are part of the investment costs. These costs are reimbursed by the Federal state, although the Uniklinik is the debitor of VAMED. The Federal state is planning its expenses on an annual basis only. There is no commitment from the Federal state to pay the fees for VAMED till the end of
the contract period. In case the Uniklinik would make profits, the Federal state would not cover the costs for VAMED any more. On the other hand the Federal state signed a guarantee to VAMED for the payments the Uniklinik has to provide.

The costs for energy, inspections and planned maintenance are part of the operating costs, and are covered by the Uniklinik out of the DRG revenues. Within the calculation of the DRG these components are considered.

The financing of the project is constructed as a project-financing model, and not as an on-balance-financing of the Cologne University Hospital in order to keep the risks with the private partner.

In accordance to the on-balance-financing model the financing institute delivers the loan because of the high credibility of the debtor. In case the mortgage cannot be paid, the financing institute gets its payments from the company directly. Therefore in many cases a business plan is not required, nor detailed due diligences regarding the profitability of the investment.

According to the project-financing model the financing institute calculates the financing and its risk in respect to the project data only. Therefore a detailed business plan is necessary, were the profitability of the investment becomes transparent. The risks are with the project owner, in this case, the private partner.

7. Costs per patient

Because of the dual financing system, investment costs are not calculated within the DRG system.

The investment costs of the PPP project are not reimbursed by patients and their payers but by the Federal state, or maybe in future, out of the profits of the Uniklinik.

Following the calculation of the Uniklinik, the operating costs of the U/B West (energy, inspections, planned maintenance) will be 10 % less than they are currently. The reason for this improvement is the fact that VAMED is able to do the necessary maintenance exactly at the time it is required. The necessary financing has to be provided by the Federal state within the monthly fees it pays to the private partner. In case the Uniklinik has to apply for financing of maintenance from the Federal state, it often has to wait for a long time, and will not get the necessary funding at all. This leads to higher operating costs, which now can be avoided.

In total the costs per patient will decrease because of the PPP project. The DRG-related revenues will not change.

8. Average hospital stay

A decrease of the average lengths of staying by 10% to 15 % is planned, because the new building allows optimized patient flow and material logistic, less waiting time, and efficient processes.

9. Hospital/Staff satisfaction (if data available)

A higher staff satisfaction is planned, as nurses and other staff shall reduce time for transports and other non-efficient services from currently up to three
hours per staff per day to a number, which is much less. It is planned to reduce the waiting time and transport time of medical staff close to zero.

10. Lessons learnt from the experience

The Uniklinik stated to have an overall benefit of 6.8%. This is the result of the decrease of the operating costs (energy, inspections, maintenance) by nearly 10%. The investment costs are as high as they would have been, if the Uniklinik would have built the U/B West by itself. There is neither an advantage nor disadvantage of working with a PPP partner for construction reasons for the Uniklinik.

Because of the PPP, the financing costs were by 3% higher than they would have been, if the Uniklinik would have been allowed to take a bank loan.

PPP may not be the final solution for all projects in health sector, but is a step into the right direction for those hospitals, which neither don’t get financing for necessary investments from the Government, nor have access to the capital markets due to the lack of state guarantees.

Furthermore the hospital benefits from the relationship with the private partner not only for financing reasons, but also because of additional competence of the partner in the fields planning, construction, and organization of maintenance and diagnostic services. For example, the solution of the erecting of one solid block was a benefit for the Uniklinik.

Increase of efficiency would be possible also without private partner.

There is an inherent risk for the Uniklinik in respect to the long-term partnership with VAMED. In case of lower patient numbers and less need of room space, there is no possibility for cost reductions in areas of downsizing. If the revenues will decrease, the Uniklinik will have no possibilities to reduce the costs, like it would have without the private partner.

In the opinion of the Uniklinik PPP is helpful in case of high investments into risky and expensive medical equipment, for example Proton beam therapy. From the economical point of view the procedures would be more inexpensive and efficient, if the Federal state would be able to cover the necessary expenses.

11. Comparison with the similar state run facility on points

Hospitals, which get sufficient funding from the Government, or have enough cash flow, and access to capital markets for the financing of investments, show equal results of increased efficiency with new buildings, as long as they have hired adequate internal or external competence for the implementation.

Following the research of the Uniklinik, the costs for construction and equipment would have been the same, if the Uniklinik would have done the investment without private partner.
Case Study: Italy

Public – Private Partnerships in the Italian Healthcare System

1. PPP Law/Legal Framework/PPP Policy in Health
Italy is regarded as the second market for PPPs in the healthcare sector in Europe, following Great Britain, but the Italian experience in this field presents important differences with the British case.

The debate about the use of PPPs in Italy started in the early Nineties, when the Central Government reacted to a deep financial crisis with a series of far-reaching reforms inspired by the “New Public Management” paradigm. The healthcare sector, which had witnessed the corporatization of both tertiary-care hospitals and health authorities with Presidential Decrees 502/1992 and 517/1993, appeared immediately as a prime candidate for the adoption of PPPs. It should also be considered that the Italian NHS, established by Law 833/1978 following the collapse of a “Bismarckian” insurance-funded system, was explicitly modelled along the lines of the British NHS: partly as a consequence, new practices introduced in Great Britain always had a special appeal when discussing opportunities for reform.

The transfer of policies and practices designed in a common law environment to a country with a strong tradition of civil law, though, is often a source of tensions. The most important legal provisions regulating PPPs (including PPPs in the healthcare sector) have been enshrined in the regulation of procurement, and more specifically of public works. PPPs, in other words, have been regarded primarily as ways to provide goods and services to governmental agencies, rather than as funding mechanisms. Also taking into account the push to ensure competition in procurement provided by EU directives (e.g., 71/305/EEC, 89/440/EEC, 93/37/EC, 2004/18/EC), a major point of contention over the years has been whether the private-sector promoter of a PPP deal could automatically play a leading role in its implementation, or whether implementation should be put out to a competitive tender once a deal had been structured. The discipline of this point underwent many changes: five different laws regulating public procurement were issued from 1994 to 2006, trying to find a balance between the explicit political will to promote PPPs and the need to ensure transparency and competition in awarding public works (also because of an underlying distrust of public opinion with respect to the involvement of public parties in the provision of public infrastructure, especially in the healthcare sector). These shifts in the relevant legal framework obviously did not facilitate the uptake of PPPs.

2. Centralised PPP Unit on health at country level/ Decentralised decision making (devolved/decentralized approach used for management of PPP)
The Italian Constitution entrusts the responsibility for health service delivery to Regional Governments: the Central Government maintains instead the responsibility for funding, coordination and broader standard setting. The role of the Regions was significantly strengthened by Presidential Decrees 502/1992 and 517/1993: they transferred the ownership of most public sector
hospitals from the municipal to the regional level, with only research hospitals (and to a limited extent teaching hospitals) remaining under the direct oversight of the Central Government. Since Regional Governments have the power to decide the organizational arrangements for health services delivery within their territory, they resorted to a different degree to corporatization, and they approached very differently the opportunities and risks implicit in PPPs. These differences combined with pre-existing variations in a) the relative share of public vs. private hospital beds, and b) the level of policy-making and implementation capabilities of different Regions. As a result, the situation with PPP in the Italian healthcare sector is extremely fragmented, with significant differences among Regions. Centralized units exist both in the Ministry of Health and under the Cabinet of the Prime Minister (as a supporting unit to the Inter-Ministerial Committee for Economic Planning, “CIPE”) to ensure a country-wide oversight of PPPs, but decision-making is shared between Regional Governments and the hospital trust or health authority interested in the project.10

3. First PPP contract (year, name)
The first example of comprehensive PPP in the healthcare sector reaching operational status is the restructuring of Castelfranco Veneto and Montebelluna Hospitals in the Veneto Region, for a total of over 147 million Euros, with a public contribution of around 38% of the total value.11 The project was formally launched in 2001, with the publication of the information memorandum. On June 30th, 2001 the Authority received a proposal from a consortium of firms led by Guerrato. Evaluation, amendment and approval of the proposal took two years; on August 31st, 2002 the proposal was declared of public interest. Tenders were invited on August 14th, 2003, and the 27-year concession was eventually awarded to the promoter on April 19th, 2004, with the final contract signed on September 15th, 2004. Construction work was also entrusted to the promoter, and started on February 16th, 2008.

Less than two months later, on April 9th, activities started instead in a much more visible facility, i.e. a brand new hospital in Mestre (Veneto Region), with 680 beds, 25 dialysis places and 20 cots.

4. Total number of PPP contracts
Finlombarda maintains the most comprehensive database on PPP projects in the Italian healthcare sector, starting from May 2002 and based on a regular monitoring of 264 entities (149 health authorities and 132 hospital trusts). The latest update, published in 2012, covers all deals up until May 2011: it reports a grand total of 74 deals, and 53 deals actually awarded, i.e. slightly less than half the number of PPP projects awarded in the United Kingdom (the remaining 21 deals are in the pipeline). Out of the 53 awarded deals, 20, or 38%, are smaller than 20 million Euros, 13, or 24%, are in the 20 to 50

10 It is interesting to point out that a country-wide annual “Survey of project finance in Healthcare sector” has been performed since 2003 on a regular basis, but not by a central government entity. It is performed instead by Finlombarda, a joint stock company owned by the Regional Government of Lombardy serving as a financial trust. Lombardy is the Italian Region that relied most on the corporatization of hospitals, and Finlombarda has been a dynamic proponent of PFI in the healthcare sector.

11 The refurbishment of the hospital trust “Spedali Civili di Brescia” (Lombardy Region) was launched on January 17th, 2000 and reached operational status in November 11th, 2004, but the PPP covered only one section of the intervention, at a cost of 38 million Euros.
million Euros range, and 20, or 38%, are larger than 50 million Euros, for a total of 2,077 million Euros, compared to 15,072 million Euros in the United Kingdom reported by Finlombarda; this means that on average a deal is worth 39 million Euros in Italy, compared to well over 125 million Euros in the United Kingdom. The Finlombarda database, though, includes also a significant number of projects supporting the establishment or refurbishment of supporting infrastructure (in particular parking lots, but also catering facilities, shopping malls and cogeneration facilities): they account for 22 out of 53 awarded deals, but they cannot be considered relevant for the purposes of this analysis (19 out of 22 are actually included among the projects worth less than 20 million Euros). It is also relevant to point out that out of 33 awarded deals with a value above 20 million Euros, only 10 are already operational.

5. Model:
In the absence of a clear country-wide framework each deal is different from the others, but they can all be considered as falling under the category of PFIs: there are only four cases of experimental operation where patient care is awarded to the private concessionaire. In the remaining deals involving the building or refurbishment of healthcare facilities, the concessionaire is entrusted with "non-core" support services (maintenance of premises, laundry, catering, indoor and outdoor cleaning, waste disposal, IT, heating, gardening, etc.) or with commercial services (bars, staff canteen, car parks, accommodation for patients’ relatives, shopping areas, staff nursery, newsstands, etc.), not with clinical hospital management.

6. Contract duration
The picture is very mixed with reference to contract duration, reflecting the very different types of initiatives pursued through PPPs. The Finlombarda database features information in this respect only for 64 deals out of the 74 surveyed (i.e., including also deals which are still in the pipeline). The modal duration is 30 years, with 14 deals, but the range varies from 6 to 50 years. More specifically:

- 6 deals, or 9%, have durations up to 10 years;
- 14 deals, or 22%, have durations between 10 and 20 years,
- 38 deals, or 60%, have durations between 20 and 30 years;
- the remaining 6 deals, or 9%, have durations longer than 30 years.

7. Payment system
The payment system in Italian PPPs has been significantly influenced by the practices of the British NHS. The hospital trust or the local health authority benefiting from the facility make an annual payment to the concessionaire ("unitary charge"), calculated on the basis of formulae agreed at contracting stage. This annual payment usually includes two components:

- a fixed availability fee, covering the capital costs (which might actually change because of possible penalties levied as a consequence of delays or non-availability of areas required for service delivery);
- a facility management fee covering the operating costs of services (as a rule based on the volume of services rendered, and incorporating
possible penalties levied in case service quality does not meet the standards agreed upon).

The concessionaires also earn the revenues of any commercial service entrusted to their responsibilities.

It is important to point out that in many cases the concessionaires also received public funding to cover in part capital costs. This practice is not widespread for PPPs concerning support facilities: information is available in the Finlombarda database for 28 deals out of 29, and capital contributions were received only in 13 cases (46% of deals). The same practice is much more common for PPPs concerning healthcare facilities: information is available for 41 deals out of 45, and capital contributions were received in 33 cases (80% of cases). More specifically, large deals are almost invariably supported by capital contributions (29 deals out of 30, or 97% of cases, for projects exceeding the total value of 50 million Euros). The incidence of public funding on investments tends to be significant: the amount of public contributions is known for 35 deals out of 74, and the breakdown is the following:

- 10 projects receive a contribution less than 25% of the capital value of the investment;
- 5 projects receive a contribution between 25 and 50% of the investment;
- 16 projects receive a contribution between 50 and 75% of the investment;
- 4 projects receive a contribution exceeding 75% of the investment.

If we focus on the 27 awarded PPP deals that envisage public funding, the average incidence of capital contributions totals 56%.

8. Share of PPP contracts in total hospital investment plans

The very different types of initiatives pursued through PPPs make it difficult to estimate a meaningful figure: according to Finlombarda (2012: 123), “out of the total value of public investments in the healthcare sector from 2006 to 2010, project finance’s share is higher than 50%, with peaks in 2007 (67%) and 2010 (65%)” (the methodology underlying this estimate is not clarified, though). PPPs in the healthcare sector are estimated to account for about 15% of the overall PPP market in Italy (compared with 23% in the United Kingdom).

9. Value for money consideration on a macro level

Italy lacks a systematic methodology for the assessment of investments in PPPs: as already mentioned, the debate has focused more on the procedures to be used to award the contract, rather than on an evaluation of whether the contract made financial sense in the first place. Bits and pieces of an assessment framework have been developed: the Budget Law for 2004 (Law 350/03) envisaged a template for the submission of financial plans, and went as far as to specify the rate to be used for the discounting of cash flows (!); a Unit for the Evaluation and Monitoring of Public Investments has been established and published a manual on how to perform feasibility studies for public infrastructure; net present value is routinely calculated, and many players borrowed or adapted the British methodology of public sector comparators. All in all, though, a systematic methodology to be used to
ensure that a PPP has real advantages over alternative funding arrangements is missing. As a consequence, on the one hand “the planning phase is very often characterized by hesitation and indecision about the advisability of using this instrument, which often results in the project being abandoned altogether” (Finlombarda 2012: 127); on the other, the interest in PPPs seems driven more by the desire to have off-balance sheet debt and circumvent capital rationing (e.g., the domestic implications of the Stability Pact), rather than value for money or other intrinsic merits of this approach.

10. **Results of the audit by national auditing chambers**
The small number and the heterogeneous nature of the deals completed so far imply that “Corte dei Conti”, the Italian Audit Chamber, has not paid attention to PPPs in the healthcare sector. A recent report by “Corte dei Conti” focused instead on the only Central Government programme designed to finance healthcare facilities, i.e. Law 67/88. Focusing on the second part of the programme, covering financial allocations of almost 17 billion Euros, the study labelled governmental intervention as a failure: less than 10 billion Euros have been committed, and only 7 billion Euros have been disbursed. “Corte dei Conti” explains this dismal track record with a cumbersome legal framework, a fragmented planning system and poor project management skills in some Regional Governments.

11. **Risk transfer models/results**
Risk allocation in Italian PPPs envisages that private partners undertake design, building and testing risks, as any private contractor would do, as well as financing and maintenance risks. The remaining risks are allocated based on the specific clauses included in the deal: in particular, facility management fees based on the volume of non-core services rendered and the fact that concessionaires pocket the revenues of any commercial service entrusted to their responsibilities mean that they bear a significant part of the demand risk. On the other hand, the heavy incidence of public funding on investments (see § 7.) reduces to a significant degree the actual amount of risk borne by private partners.

One more time, the small number and the heterogeneous nature of the deals completed so far make it difficult to provide a systematic assessment of risk allocation patterns. The Finlombarda database produces at least a preliminary overview of demand risk, by specifying the services entrusted to concessionaires under 31 building and operating concession agreements.

12. **Room for innovative approaches**
This dimension of performance has never been adequately addressed in the debate about PPPs in the Italian healthcare sector, largely because the lack of a standardized approach means that each deal is unique, and therefore it presents plenty of room for innovative, ad hoc solutions. On the other hand, once a deal is eventually signed, its level of details and long duration do pose constraints on the possibility to implement new approaches in response to shifting conditions. No systematic information is available in this respect, though, but only anecdotal evidence.

13. **Management of PPP contracts**
Finlombarda surveyed governmental officials to identify the challenges they faced in launching and managing PPPs in the healthcare sector. Out of 29
projects for which information is available, the challenge reported most frequently concerns the length of procedures (mentioned by 21 respondents, or 72% of the sample), followed by the evaluation of the draft concession contract and urban planning issues (both mentioned by 18 respondents, or 62% of the sample). Challenges cited more rarely, but ranked as more serious, included negotiations with promoters to review the proposal, appeals to administrative courts, delays in the construction schedule and trade union issues.

Finlombarda also monitors the decision to rely on external consultants: according to the data they collected, only 20 deals out of 74 (27%) have been supported by advisors or consultants. Taking into account the complexity of a PPP and the nature of the need to be addressed, it is difficult to imagine that internal professional skills were fully sufficient in 73% of cases. Respondents also declared that 68% of consultants belonged to the private sector, whereas 32% belonged to the public sector. Private sector consultants usually provided legal (40%) and financial advice (35%), whereas public sector consultants supplied primarily financial (37%) and technical advice (32%).

14. Experience positive/negative/Lessons learnt by project and program management phase

Although the debate about PPPs, and PPPs in the healthcare sector, has been ongoing for about two decades in Italy, only now the number of completed projects allows to draw some preliminary conclusions. In Italy as elsewhere, it is impossible to state whether the balance is positive or negative, because this judgement depends on how different dimensions of performance are weighted. On the plus side, PPPs allowed to mobilize extra capital: the share of public contributions is relatively high, especially for large-scale projects (see § 7.), but the availability of private capital allowed to modernize the stock of healthcare facilities far beyond what would have been the case with public funds only. On the minus side, the advantage of PPP deals does not seem to reside in a lower cost of capital (see § 9.): if we take into account the lengthy procedures needed to close the deals, and the corresponding implicit costs, it is pretty clear that PPPs were driven more by the desire to circumvent debt ceilings than by their intrinsic cost-effectiveness.

The Italian case is especially interesting as an example of a highly decentralized approach to PPPs. On the one hand, decentralization is coherent with the principles of managerial autonomy and accountability: instead of applying standardized models, health services providers have the possibility to identify customized, innovative solutions designed to match their specific needs and to exploit available opportunities. On the other hand, this emphasis on “ad hoc” solutions is most probably one of the reasons why deals are concentrated in areas of the country that are recognized as stronger (primarily Lombardy and Veneto), financially and in terms of professional qualifications (both at facility and at Regional Healthcare Department levels). In retrospect, our view is that more systematic guidance and support from the Central Government, in terms of clearer regulatory frameworks and methodologies for the assessment of cost-effectiveness, would have helped proponents take decisions faster, either in favour or against PPPs, and thus facilitate the successful exploitation of their intrinsic potential.
15. Sources


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1. The definition of the partnership.

The public-private partnership launched to restructure Castelfranco Veneto and Montebelluna Hospitals in Asolo Health Authority is the very first health-related PPP completed in Italy. The idea of a PPP came up in the top management of Asolo Health Authority in 2000 as an answer to the urgent need to complete restructuring work started over twenty years earlier, avoiding the cost increases and delays witnessed in the past.

The overall value of the required investment totaled about 120 million Euro, whereas the resources made available by the Central Government thanks to Article 20 of Law 67/1988 barely reached 31 million Euro. A PPP was thus envisaged with a double purpose in mind: closing the gap in terms of funds, and making sure that the building schedule would be respected. No other health-related PPP had been completed in Italy before, so no established expertise was available, either in terms of legal arrangements or in terms of economic evaluations. Asolo Health Authority decided therefore to rely on a privately-promoted partnership, traditionally associated in Italy to a PPP involving private-sector investments, also taking into account that this approach would shift on private partners the expenses and the risks of preliminary planning.

The overall time schedule was as follows:

- January 2001: approval of the new three-year investment plan, envisaging the adoption of a PPP
- June 2001: submission of a proposal by a consortium led by the developer Guerrato jsc;
- 2001-2003: assessment of the proposal by Asolo Health Authority, by the Veneto Regional Administration and by the Inter-ministerial Planning Committee;
- August 2002: "Dichiarazione di pubblico interesse" (the proposal submitted by the consortium is declared to be in the public interest);
- August 2003: issuance of the tender for the awarding of contracts;
- February 2004: identification of the proposals admitted to take part in the tender;
- March 2004: assessment of the improvements included by the company admitted to tender as compared to the original proposal;
- April 2004: negotiation and award of the contracts to the promoter;
- September 2004: signature of the contract and financial close;
- February 2005: beginning of construction work;
- February 2008: beginning of operations.

The overall procedure lasted much longer than what was originally estimated, on the one hand because of the overall complexity of the investment, on the other because Asolo Health Authority wanted to assess with caution a project that would significantly influence, over the following decades, both its ability to meet health needs and its bottom line. For this purpose, the Health Authority relied heavily on the Public Investment Evaluation Unit of the Veneto Regional Administration and on the Project Finance Technical Unit of
the Inter-ministerial Planning Committee: both because they were among the best experts available in Italy at that time on PPP-related issues, and because their involvement provided implicitly an institutional endorsement to the project.

In retrospect, the top management of the Health Authority acknowledged that a privately-promoted partnership was not the best way to launch such a large and complex project (Vecchi 2008: 141). This judgment is based on information asymmetry: in a publicly-promoted partnership, the public sector partner drafts all the documents required for the tender, thus leading potential private partners to structure their bids in such a way to meet the proponent’s need, and also simplifying the assessment of bids. In a privately-promoted partnership, the original proposal submitted by the private sector promoter must be modified to meet the requests of the public sector partner: this approach can undermine the entire proposal, and in particular its overall financial viability (publicly-promoted partnerships have actually been much more popular over the last few years). In terms of time and costs, the same top management maintains that privately- and publicly-promoted partnerships are comparable (Vecchi 2008: 141). As far as possible delays are concerned, different phases are just distributed in a different way over time. On the other hand, drafting all the documents required for the tender and selecting the private partner entails similar costs (in terms of internal staff and external consultants) to the evaluation and the negotiations required with a privately-promoted partnership.12

2. Main features of the partnership

The PPP contract signed in September 2004 between Asolo Health Authority and the special purpose vehicle “Asolo Hospital Service” envisaged that the latter would take upon itself the responsibility to:

- Plan the intervention (including preliminary, final and operational plans);
- Secure all required funds;
- Perform building work;
- Ensure the maintenance of the building and of non-medical equipment;
- Ensure the functioning of medical equipment;
- Deliver non-clinical services.

The contract was awarded for twenty-seven years and six months, including three years and six months to complete the investment and twenty-four years to run it. Throughout the duration of the contract, Asolo Hospital Services has special building rights on the area earmarked for the project. The buildings already existing over the area are entrusted to the special purpose vehicle for

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12 The issue of whether PPPs should be promoted by private partners or initiated by public partners has been one of the key aspects in the debate about PPPs in Italy, not only in the healthcare sector. On the one hand, a partnership pursues by definition a unique match of skills, and in the case of complex PPPs a carefully balanced distribution of responsibilities and risks as a consequence, the profile of the partner is by no means neutral for the feasibility of the entire project. On the other hand, when public works are tendered out, national laws and EU directives require competition among bidders enjoying equal rights. Legislation in Italy has been constantly evolving since the early Nineties, trying to strike a balance between the need to ensure open and fair competition on the one hand and the willingness to promote PPPs on the other, but innovations have often been struck down in court, and the uncertainty that followed did play a role in limiting the diffusion of PPPs.
free, inasmuch as they are instrumental to the restructuring work and then the operations of the restructured facility. Upon expiry of the contract, Asolo Hospital Services will return the area, the buildings and the associated equipment to Asolo Health Authority. Both the buildings and the equipment will have to be in a good state, in terms of regular maintenance and upgrade, as specified in one of the annexes to the contract.

Asolo Hospital Services has the right to exploit the facilities, and more specifically to charge for the provision of the following services:

- Maintenance, operations and upgrade of all non-medical equipment (electricity, water, sludge, heating, air conditioning, cogeneration, fire prevention, medical gases);
- Maintenance of medical equipment;
- Catering (also for customers outside the hospital), including dishwashing and maintenance of kitchen equipment;
- Indoor and outdoor cleaning;
- Laundry (including pillows and mattresses);
- Maintenance of buildings;
- Maintenance of furniture;
- Garbage collection and disposal;
- Maintenance of lifts;
- Security;
- Maintenance of information technology and electronic data interchange;
- Sterilization;
- Commercial services to patients and visitors (parking lots, bars, vending machines, newsstands, flower shops, banks, other shops).

For all these services, the contract envisages specific performance standards addressing both the organization patterns and the quality of services rendered; in case these standards are not met, the contract specifies the penalties to be levied. A staff member of the Health Authority is responsible for monitoring (responsabile del procedimento); he or she reports twice a year to a joint Evaluation Committee (Nucleo di valutazione) established for this purpose, including the Chief Executive Officer of the Health Authority (or a delegate) plus two more people representing the Health Authority and two people representing Asolo Hospital Services.

The joint Evaluation Committee plays a critical role in balancing the expectations of the beneficiary, willing to improve both clinical and non-clinical services over time, and the concerns of the special purpose vehicle, wary of any change that could negatively affect the profitability envisaged out of the original investment. More specifically, the Evaluation Committee must:

- Define expected performance levels in terms of both quality and quantity, based on the parameters envisaged in the contract, and in keeping with the latest clinical protocols;
- Formulate the plans for the upgrade of medical equipment;
- Assess the quality of the services provided by the special purpose vehicle;
- Assess the improvements in service provision suggested by the special purpose vehicle;
Assess the opportunity to modify, broaden or review the nature of the services provided and the parameters used to measure them, following changes in legislation or technological advances.

One of the most innovative features of the contract is the commitment by Asolo Hospital Services to reinvest in technological upgrades 19.60% of the fee paid out every year by Asolo Health Authority. Pursuant this clause, the special purpose vehicle must refurbish or substitute any obsolete equipment, including medical equipment, so as to guarantee that the performance of Asolo Health Authority does not fall behind the average for all Health Authorities in the Veneto Region. These reference levels are defined by the joint Evaluation Committee. This innovation allows to share the risk related to one of the most critical aspects of health-related PPPs: a specified percentage of the annual fee is earmarked to make sure that all equipment is upgraded on a regular basis, in line with the investment decisions by other Health Authorities in the Region.

3. The fee-setting mechanism

The private partner received from Asolo Health Authority a contribution totaling 30,987,413.95 Euro, made available by the Central Government thanks to Article 20 of Law 67/1988 and corresponding to about 25% of the overall investment; the remainder is charged as part of the annual fee, divided up in twelve monthly installments, that Asolo Health Authority pays in exchange for the services rendered by Asolo Hospital Services.

The annual fee was originally set, based on year 2000 prices, at 29,143,663 Euro (including VAT), resulting from the fees charged for each individual service:

<table>
<thead>
<tr>
<th>Service</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity and heating</td>
<td>€ 8,996,322</td>
</tr>
<tr>
<td>Maintenance of medical equipment</td>
<td>€ 6,214,383</td>
</tr>
<tr>
<td>Catering</td>
<td>€ 4,931,042</td>
</tr>
<tr>
<td>Cleaning and sanitization</td>
<td>€ 3,997,277</td>
</tr>
<tr>
<td>Laundry</td>
<td>€ 2,335,415</td>
</tr>
<tr>
<td>Maintenance of buildings</td>
<td>€ 550,898</td>
</tr>
<tr>
<td>Maintenance of furniture</td>
<td>€ 200,545</td>
</tr>
<tr>
<td>Garbage collection and disposal</td>
<td>€ 576,271</td>
</tr>
<tr>
<td>Maintenance of lifts</td>
<td>€ 276,136</td>
</tr>
<tr>
<td>Security</td>
<td>€ 77,993</td>
</tr>
<tr>
<td>Maintenance of information technology</td>
<td>€ 242,631</td>
</tr>
<tr>
<td>Sterilization</td>
<td>€ 746,751</td>
</tr>
</tbody>
</table>

This annual fee amounted to 28.5% of the total turnover of Asolo Health Authority in 2000, including both the reimbursements from the National Health Service and the copayments on outpatient services levied on individual patients. For the first two years since the facility started operations, the annual fee was calculated multiplying the original amount by the official inflation rate, as defined by the National Institute for Statistics (ISTAT). Starting from the third year, the annual fee is calculated as a 28.5% share of total turnover: it is therefore variable, depending on demand.
This variability has been capped both upwards and downwards, though: total turnover (net of inflation) is expected to remain within the range of plus or minus 3% compared to the turnover of the base year. As long as this is the case, the annual fee is calculated as a 28.5% share of turnover; otherwise, the ceiling or the floor fee applies. This means that, in case total turnover increases more than 3%, Asolo Health Authority will pay a fee lower than the 28.5% share, whereas if total turnover decreases more than 3%, the Health Authority will pay a fee higher than the 28.5% share. This agreement balances the willingness by the Health Authority to share some market risk with the need to secure a steady income for the special purpose vehicle, so as to reduce lending risk and consequently the interest rates on debt.

In case actual turnover (net of inflation) falls above or below the plus or minus 3% range for two years in a row, then it means that some structural changes modified the size, and most probably the mix of revenues: under these circumstances, a new fixed share of turnover must be calculated to ensure the financial balance for both the Health Authority and Asolo Hospital Services. The fixed 28.5% share can also be revised in case actual turnover falls within a plus or minus 1.5% range, as compared to the base year, for four years in a row.

The yearly fee is reduced by the amount the special purpose vehicle owes to the Health Authority in exchange for the use of commercial areas (including the possibility to exploit the kitchen to provide catering services for customers outside the hospital). Here there is a deviation with the practices used in most Italian PPPs, where commercial areas are made available for free and their revenues contribute to the cash flow accruing to the special purpose vehicle. The two alternatives are not equivalent, because the potential revenues generated by commercial areas are often underestimated: if the private sector partner manages to maximize their potential, the benefit accrues partly to the Health Authority through a reduced yearly fee.

Also in comparison with the British practices that clearly inspired health-related PPPs in Italy, it is worth pointing out that the annual fee is not defined based on the availability or non-availability of areas or facilities, but exclusively with reference to the services provided by the special purpose vehicle. This approach allows transferring a higher share of risk to the private partner, including both market risks - since the fee is defined based on the annual turnover of the Health Authority - and service performance risks - since a range of penalties can be levied in case of poor performance.

More specifically, penalties are levied in case the private partners do not meet the performance standards set by the Health Authority. Performance gaps can be either due to a fully-fledged breach of contract, which entails the right to compensation, or to deviations from pre-set service delivery standards: in the latter case, the penalty depends on the incidence of the deviation and on the critical vs. non-critical nature of the service for the Health Authority. The contract also specifies how frequently performance is monitored: frequency is different for different services (e.g., on a daily basis for cleaning services).

The staff member of the Health Authority responsible for monitoring (responsabile del procedimento) is expected to signal any non-conformity to the private partner within fifteen days from its discovery. The private sector
partner has fifteen more days to reply; if the reply is deemed unconvincing, the penalty kicks in. The amount of the penalty increases in case non-conformities are identified more than once; in this case it is also possible to rescind the contract with the consortium partner responsible for the delivery of that specific service. Examples referring to canteens and sanitization are featured below (figures are expressed in 2004 Euro).

**CANTEENS**

In case of serious or repeated violations of contractual obligations the Health Authority will assess on a case-by-case basis the maximum compensation to be charged to make up for the damage.

In case, following a formal communication [by the Health Authority], performance falls below standards due to a failure to meet contractual obligations, the Health Authority will be entitled to charge a penalty up to 5,000.00 Euro for each instance of violations.

The identification of deviations from pre-set service delivery standards will be performed in keeping with the procedures agreed upon with the service provider, in such a way to make sure that its point of view is taken into account, and will allow charging penalties of up to 2,500.00 Euro for each control procedure.

More specifically:

- For deviations of up to 1% above the standards set in the terms of reference or in the bid: penalty equal to 200.00 Euro for each deviating indicator;
- For deviations between 1% and 2%: penalty equal to 500.00 Euro for each deviating indicator;
- For deviations higher than 2%: penalty equal to 1,200.00 Euro for each deviating indicator.

**SANITIZATION**

A. High risk environments: no violations are allowed.

- For one violation (e.g., one room has not been sanitized): penalty equal to 600.00 Euro
- For two violations: penalty equal to 1,200.00 Euro
- For more than two violations: penalty equal to 2,500.00 Euro

B. Medium risk environments: tolerance level is up to 5% of all the rooms included in this category

- For deviations of up to 1% above tolerance level: penalty equal to 300.00 Euro
- For deviations between 1% and 2%: penalty equal to 700.00 Euro
- For deviations higher than 2%: penalty equal to 1,500.00 Euro

C. Low risk environments: tolerance level is up to 10% of all the rooms included in this category

- For deviations of up to 1% above tolerance level: penalty equal to 250.00 Euro
- For deviations between 1% and 2%: penalty equal to 600.00 Euro
4. Evaluating and securing the financial viability of the partnership

It goes without saying that Asolo Health Authority felt the need to evaluate carefully the proposal put forward by the private sector partner, compared with the alternative of relying on more traditional funding patterns. This evaluation served a two-fold purpose: it supported the decision whether to implement the partnership or not, and once this decision was taken it provided valuable insights in follow-up negotiations.

The evaluation performed by Asolo Health Authority was broadly based on the “public sector comparator” methodology typical of the British Private Finance Initiative. Calculations included the costs expected to complete the facility and manage its (non-clinical) operations, but the risks transferred to the private partner were not accounted for, so as to provide a conservative estimate of the possible benefits of a PPP.

In order to calculate the public sector comparator, information about the expected investment (overall amount, useful lifetime, depreciation rates, value of technological upgrades) was taken straight from the proposal put forward by the private sector partner. Information about the value of the services to be provided by the special purpose vehicle was estimated either based on the terms of existing contracts, or on the costs calculated by the management accounting system, depending on whether the service was outsourced or provided “in house”.

Based on this information, the public sector comparator was calculated based on the following assumptions:

- The overall cost of the investment would be covered partly by the earmarked funds made available by the Central Government thanks to Article 20 of Law 67/1988, and for the remainder through bank credit, which assumed a duration of 25 years and a fixed interest rate of 6%;
- The yearly cost of providing non-clinical services (or purchasing them from current suppliers) was estimated at 24,825,300.48 Euro;
- The yearly cost of the PPP was set equal to the amount of the fee proposed by the private sector partner at 29,143,663 Euro.

Taking into account the distribution of financial flows over time, and in particular the possibility to backload the outlays thanks to the involvement of the private partner, the value for money associated to the partnership proved to be clearly associated to expected interest rates. The break-even discount rate was identified at 2.85%: above that rate, reliance on a PPP generated more value for money than traditional financing. Discounting cash flows at a 5% rate, i.e. the rate suggested by the Public Investment Evaluation Unit of the Veneto Regional Administration, a PPP demonstrated to allow overall savings in the range of 4.5 million Euro, on top of the potential benefits following the risk transfer to the private partner.

The Health Authority paid special attention to the financial dimension of the project not only during the evaluation of the proposal, but also during the implementation of the contract. During the construction phase, for instance,
the calculations of net present values and internal rates of return were used to renegotiate the contract so as to incorporate a project modification needed to comply with new anti-seismic regulations without endangering the overall financial balance of the investment.

In this respect, the contract proved to be well designed, inasmuch as it envisages the possibility to revise the terms of the agreement as a consequence of:

- Changes to the project design;
- Changes in the cost of service delivery;
- Changes in the volume of services to be delivered (demand risk).

Under these circumstances, the changes in the financial plan should not translate into a benefit or a damage for one side only: the terms of the agreement must be revised so as to make sure that the net present value and the internal rate of return based on which the contract has been awarded remain the same. The same logic applies in case the Health Authority is willing to modify the project design or the mix of services: the financial plan would be revised and the Health Authority would bear the extra cost, but the net present value and the internal rate of return are not expected to change. Obviously this balancing act does not take place in case of negligence or inadequate operational forecasts by the private sector partner, which ends up bearing the costs of its own faulty behaviour.

A special reference should be made to the arrangement concerning the cost of service delivery, which is rarely envisaged in PPPs. Both the Health Authority and the private sector partner can request a revision of the financial plan once they have adequate evidence of the fact that the cost of service delivery (net of inflation) increased or decreased more than 5% as compared to the base year (2000). In other terms, both partners share the risk of a variation in the cost of service delivery beyond 5%.

Service volume is very likely to change over time, not only because of epidemiological factors but also because of the service mix, the number of beds, the number of square meters actually earmarked for clinical services and the like. The annexes to the contract spell out the variable costs, the fixed costs and the service volume assumed as the basis for the definition of the financial plan: it is therefore relatively simple to revise the financial plan in such a way to safeguard the same balance.

5. Lessons learnt

The public-private partnership launched to restructure Castelfranco Veneto and Montebelluna Hospitals is among the few health-related PPPs in Italy to be considered truly successful. As we write the viability of the entire approach is questioned (partly for ideological reasons): the number of new projects is almost down to zero, and the contractual terms of many projects are being redefined in court, but the experience of Asolo Health Authority is considered a success story.

On the one hand, one can say that the project itself was not overly ambitious: a long overdue restructuring work had to be completed, with a significant amount of funds available from the central government, and the public sector
partner entrusted to the private sector only non-clinical services, along patterns well experimented in the British National Health Service, if not in Italy.

On the other hand, this case represents an interesting example in order to study a variety of mechanisms relevant for the success of such an arrangement, including in particular:

- incentivizing payment mechanisms for private partners;
- patterns for the viability assessment of a health-related PPP;
- approach used to redefine the financial plan over time without endangering financial balance;
- opportunities for the transfer of risks to private partners.

The experience of Asolo Health Authority is especially relevant because of a remarkable ability to blend balance and flexibility. In many examples of PPPs, potential challenges are overlooked, or their solution is entrusted to the outcome of future negotiations, with the risk that the benefits (or the damages) would accrue to one partner only, which in turn could endanger the very partnership. In other instances, to prevent these risks the parties try to regulate in detail and in advance any development and its consequences: this approach tends to kill innovation, but history proves that foreseeing all possible scenarios is impossible anyway, so the reasons for conflict pop up anyway, no matter the amount of effort invested in the design phase.

The contract regulating the relationship between Asolo Health Authority and Asolo Hospital Services takes a different approach, based essentially on the freedom to introduce changes in the modus operandi of the partners, either because of environmental dynamics or because of a strategic choice. The contract clarifies the key aspects to be guaranteed, i.e. the net present value and the internal rate of return of the investment: this arrangement guarantees the private sector partner, because profitability is safeguarded, but guarantees the public sector partner as well, because any improvement will reduce the burden associated to the yearly fee. Transparency, both between partners and with external stakeholders, has also been a constant feature of this project, and this translated into a climate of mutual trust and very limited conflicts throughout the life of the project so far.

In our assessment, these results are made possible by a careful allocation of risks among the partners, summarized in the following table.

<table>
<thead>
<tr>
<th>Risks associated to the site</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing infrastructure is inadequate to support the development of new facilities</td>
<td>Private</td>
</tr>
<tr>
<td>The site is inadequate to the development of new facilities, entailing delays or extra costs</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risks associated to design and construction work</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning is inadequate for the type of services to be delivered</td>
<td>Private</td>
</tr>
<tr>
<td>Adverse events during construction delay completion or increase costs</td>
<td>Private</td>
</tr>
<tr>
<td>Facilities or equipment do not meet the requirements needed to become operational</td>
<td>Private</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial risks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rates increase, thus increasing overall project cost</td>
<td>Private</td>
</tr>
<tr>
<td>Equity or debt are unavailable</td>
<td>Private</td>
</tr>
</tbody>
</table>
Due to unforeseen circumstances, extra capital is required | Mixed
---|---
**Operating risks**
Inputs become more expensive or unavailable or inadequate | Mixed
Inadequate design or construction increase maintenance costs | Private
Service purchaser requires changes in service delivery standards | Public
Service provider goes bankrupt or proves unable to deliver services according to standards | Private
Facilities and equipment become obsolete faster than originally envisaged | Mixed

**Market risks**
Service demand changes | Mixed

**Political risks**
Legal framework regulating the contract and service delivery patterns changes | Public

**Force majeure**
Unforeseen events make it impossible to complete construction or to deliver services | Mixed
Value of the facility at the end of the contract is lower than the envisaged amount | Mixed

As the table shows, eight out of seventeen possible risks are allocated to private sector partners, three are borne by the Health Authority and six are shared. In some cases also these risks are clearly allocated, and risk sharing only takes place under specific conditions. In particular, the public sector partner bears the risks associated to new requirements and to changes in the regulatory framework, which would be unfair to allocate to the private sector partner instead. In short, the experience of Asolo Health Authority seems successful because the PPP that allowed to restructure Castelfranco Veneto and Montebelluna Hospitals actually did what it is expected to do: improve efficiency by a careful allocation of risks to the player most suitable to manage them effectively.
The new Sant’Anna Hospital in Como

1. History of the partnership

Lombardy is the Italian Region that relies the most on public-private partnerships for the healthcare sector. It holds the leadership for the number of both ongoing projects (21 out of 74 projects surveyed by Finlombarda, i.e. 28%) and awarded projects (18, i.e. 34% of the total number of projects actually awarded in Italy), totalling over 1,300 million Euros, i.e. 35.4% of the overall figure for Italy.

The idea to rely on a public-private partnership to build the new Sant’Anna Hospital in Como was originally suggested by the local association of construction firms, but a decision in this respect dates back to June 1999, when the top management of Sant’Anna Hospital Trust, in full agreement with the Regional Administration, announced the plan for the first time.

Como had its first hospital dedicated to St. Anne back at the end of the Fifteenth century, when a number of smaller hospices scattered throughout the city were merged into a single facility. A more modern hospital by the same name, counting twelve separate buildings, started its operations in 1932, i.e. twenty-three years after the decision to do so and four years after the beginning of construction work. The original structure of this hospital was radically modified in the Sixties, when a large seven-floor central building was added, bringing the total number of beds to 766. On top of being the most important hospital in the Province of Como, it was also its largest employer, with a staff of about 3,700.

The Central Government, through National Law 67/1988, had earmarked 100 billion Italian liras (i.e. around 50 million Euros) for the refurbishment of Sant’Anna Hospital, but throughout the Nineties the hospital trust management did not manage to use these funds. Back in 1990 the point was raised for the first time that restructuring the existing hospital was basically impossible; the more stringent standards introduced in 1997 by Lombardy Regional Administration for the accreditation of health services providers highlighted even more clearly the need to build a brand new hospital.

To facilitate accessibility, especially from patients living outside of Como, the hospital trust management (appointed by the Regional Administration) decided that the new hospital would be build right outside of the city. As it is often the case, the decision to close down the existing hospital and build a new one outside of the city boundaries was fiercely opposed by local residents and trade unions, strongly backed by local media: pressured by public opinion, both Como City Council and Como Provincial Council took sides against this decision. The need to bring back all players to the negotiation table, together with the debate on how to select the private partner, delayed the implementation of the original plan by many years, since lengthy comparisons had to be performed among competing possible sites.

The lack of funds needed to fund the building of the new hospital and the cap on the debt by local governments led to the decision to rely on a public-private partnership to replace the existing hospital with a brand new facility that would eventually start its full activities on Sunday, October 3rd, 2010. With 589 beds, sixteen operating theatres and 80,000 square metres over five
floors (including two underground floors), the new Sant’Anna Hospital is the most important hospital of the Como Province (Lombardy); it is located in the “Tre Camini” neighbourhood of a small municipality called San Fermo della Battaglia, right outside Como, the provincial capital. Together with three smaller hospitals (St. Anthony Abbot Hospital in Cantù, Erba-Rinaldi Hospital in Menaggio and Felice Villa Hospital in Mariano Comense), Sant’Anna Hospital belongs to Sant’Anna Hospital Trust.13 The old hospital in town was vacated in September 2010; by now it hosts only a few outpatient and diagnostic facilities, together with the administration of the Hospital Trust, and there are plans to sell out the building altogether, so as to cover part of the money invested by the Regional Administration into the new facility.

A preliminary framework agreement involving all relevant public sector partners was prepared in 2001, but the final agreement was signed only on December 13th, 2003 by Sant’Anna Hospital Trust, the Provincial Administration and the Municipalities of Como, Montano Lucino and San Fermo della Battaglia. The request for proposals was issued on behalf of Sant’Anna Hospital Trust by Infrastrutture Lombarde, a specialized company fully owned by the Regional Administration of Lombardy, on September 10th, 2005: the request for proposals was based on the procedure envisaged by Article 143 of the Italian Public Contract Law, i.e. the provision regulating so-called “public initiative” project financing.14 Fourteen consortia expressed their interest for the bid, but only eight did submit a proposal. The contract was awarded on May 29th, 2006 and signed shortly thereafter, on July 28th, 2006, thus allowing construction work to start on November 15th, 2006. Formally the financial close was reached more than a year later, on December 31st, 2007. Construction work was completed by November 30th, 2009, notwithstanding the delays caused by the discovery of the remnants of a prehistoric village during excavations.

2. Main features of the partnership
The counterpart of Infrastrutture Lombarde was Progetto Nuovo Sant’Anna, a special purpose vehicle established in 2006 by a consortium led by Pirelli Real Estate (later rebranded as Altair), GDM Costruzioni, Aster Associate Termoimpianti, Nelsa and Telecom Italia. Consortium members contributed equity to the special purpose vehicle for 10.3 million Euros and raised 61 additional million Euros from Royal Bank of Scotland, Société Générale and Banco Bilbao thanks to the support of the state bank Medio Credito Centrale, that served as a broker; the remaining amount required to fund the new facility, i.e. 95.4 million Euros or 57.2% of the total investment, was made available by Sant’Anna Hospital Trust, i.e. by the Regional Administration of Lombardy, partly thanks to the money originally earmarked by the Central Government with National Law 67/1988.15

13 Health services delivery in Lombardy is unique among Italian region because of the pursuit of a fully-fledged purchaser / provider split: each province features one or more health authorities serving as purchasers, and at least one hospital trust serving as provider.
14 Article 153 of the Public Contract Law regulates instead “private initiative” project financing, i.e. the procedure used for the refurbishment of Castelfranco Veneto and Montebelluna Hospitals, based on the evaluation of a proposal submitted for approval by a private investor.
15 These figures are mentioned in a celebratory volume published by Infrastrutture Lombarde and Progetto Nuovo Sant’Anna under the aegis of the Regional Administration, Como Nuovo Ospedale Sant’Anna La persona al centro del progetto. Other sources refer to very different figures, though: according to the Finlombarda database, the overall investment (including VAT) totaled 185.645.798 Euros, and the contribution by the public sector was 149.049.457 Euros, i.e. 80% of the total amount.
Progetto Nuovo Sant’Anna signed a contract entailing the responsibility to build the hospital and manage all non-clinical services for an overall duration of twenty-five years and five months, i.e. up until the end of 2031. Upon expiry of the contract, the special purpose vehicle will return the area, the buildings and the associated equipment to Sant’Anna Hospital Trust. Progetto Nuovo Sant’Anna has two major additional contracts in place: the former with Sant’Anna Costruzioni (SANCO), i.e. the company representing the consortium partners responsible for engineering, procurement and construction of the facility, the latter with Sant’Anna Gestione (SANGE), i.e. the company representing the consortium partners responsible for operations and maintenance.

In exchange for the obligations undertaken vis-à-vis Infrastrutture Lombarde, throughout the duration of the contract the special purpose vehicle has the right to obtain a quarterly fee including two components:

- an availability fee, i.e. the charge made for capital in a public-private partnership, set at a level sufficient to pay back the principal and interest of all loans and the dividends of shareholders over the life of the contract;
- a management fee for the non-clinical services entrusted to Sant’Anna Gestione, calculated on the basis of the parameters specified in the contract, including cleaning services, laundry, heating, garbage disposal, security, catering for patients and staff, information

Other sources (e.g., speeches by public sector representatives) refer to an overall investment of 260 million Euros, funded by public sector bodies for 230 million Euros (i.e. over 88% of the total amount) and by the private partners for 30 million Euros only (incidentally, this amount corresponds to the private contribution according to the Finlombarda database, once a 20% VAT is netted out). In our understanding, the difference could be explained by the fact that these figures refer to the entire cost of the functioning hospital, including equipment (paid for by Sant’Anna Hospital Trust) as well as the value of the land (made available by the Municipality of San Fermo della Battaglia) and of connecting roads (funded by the Provincial Administration), but excluding debt service paid by Progetto Nuovo Sant’Anna.
technology and the maintenance of buildings, equipment, technological facilities and gardens.

Progetto Nuovo Sant’Anna, through Sant’Anna Gestione, also has the right to manage all the areas reserved for commercial activities targeted to hospital visitors, including vending machines, cafeterias and other shops. On top of that, the new Sant’Anna Hospital boasts 1,340 parking lots, but this service is managed by a different private company, and the corresponding revenues are not included in the deal with the special purpose vehicle: based on the framework agreement signed in 2003, all the revenues (currently around 900,000 Euros a year) are channelled to the Municipality of San Fermo della Battaglia in exchange for the land where the hospital was built.  

3. Evaluating the financial viability of the partnership

According to the figures published by Infrastrutture Lombarde and Progetto Nuovo Sant’Anna in the volume *Como Nuovo Ospedale Sant’Anna La persona al centro del progetto*, the post-tax internal rate of return calculated on the overall investment totalled 8.40%, above the weighted average cost of capital invested in the project. The reimbursement plan envisaged a safety margin of four years between the payback period of the debt, expected in 2027, and the expiry of the management contract, set at the end of 2031. Starting from 2010, the net available cash flow is higher than debt servicing costs, including both interest and principal: the average debt/service cover ratio over the lifetime of the project is estimated at 1.43. Using the weighted average cost of capital, i.e. 4.06%, as the discount rate for expected cash flows, the loan life net present value estimated by the private partners totalled 14.77 million Euros, whereas the overall net present value of the project totalled 16.86 million Euros. Based on the figures, published in the same volume, the expected internal rate of return on the equity investment totalled 11.5%: using 7.2% as the risk-adjusted discount rate for the relevant cash flow, the equity investment is expected to generate a net present value of 4,945,000 Euros. Taking into account that these figures were presented to the general public as part of a PR exercise for the new hospital and its key stakeholders, there are no reasons to believe that they are artificially inflated: it can be assumed that they are either realistic or underestimated.

The data about activity levels of Sant’Anna Hospital suggest that a favourable dynamics is under way, contrary to the dire expectations of those who criticized its location. Surgical interventions grew from 12,734 in 2011 to 13,314 in 2012 (+4.5%), visits to the Emergency Department increased from 66,400 in 2011 to 68,911 in 2012 (+3.8%), and also the number of patients hospitalized following a visit to the Emergency Department grew at a similar rate (from 9,977 in 2011 to 10,495 in 2012, i.e. + 5.2%). The trend is continuing in 2013: outpatient visits, for instance, increased from 822,173 in the first six months of 2012 to 859,038 in the first six months of 2013 (+4.5%). Taking into account that Como lies only 50 kilometers from Milan and that Lombardy has one of the best monitoring systems in Italy on the appropriateness of health service provision this growth must be explained with an increasing attractiveness of the hospital. Details about the formulæ

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This arrangement is currently being challenged by different stakeholders, even more taking into account that the Municipality of San Fermo della Battaglia issued in 2011 an order allowing all its residents to use the parking lots of the hospital for free. A variation in the framework agreement is suggested by these stakeholders, so as to channel parking revenues to the technological upgrade of the hospital.
used to calculate the management fee are not known, but they are most likely to incorporate a risk-sharing agreement that allows the private partners to benefit financially when the activity levels of the hospital improve: if this is the case, increased volumes translate into increased revenues for the private partners as well, thus improving even further the rate of return of the original investment.

4. Lessons learnt
In many respects, the experience of the new Sant’Anna Hospital in Como can be considered a success. From the point of view of health services provision, the growth in activity levels speaks for itself. Construction work was completed in less than three years; this means less than the time required to build the old Sant’Anna Hospital in the late Twenties and early Thirties, and four time faster than the national average at twelve years.\(^{17}\)

The framework agreement signed in 2003 allocated risks and responsibilities in an effective way. A particularly interesting solution adopted by the Regional Administration of Lombardy is that individual health authorities or hospital trusts do not deal directly with private partners: both their management and their administrative support staff lack the legal, financial and engineering competencies required to design requests for proposals, assess bids, award contracts and oversee their implementation in the framework of a complex, multi-million public private partnership, and would need anyway to hire private consultants, or to rely anyway on the specialists working in the Regional Administration. These responsibilities are entrusted instead to Infrastrutture Lombarde a highly specialized company that oversees all infrastructural development projects involving the Regional Administration on behalf of the beneficiary body, in the field of healthcare as well as in many other areas, such as dams, highways and social housing.

Importantly for both the public and the private partners involved in the project, at the end of the day Sant’Anna Hospital can be considered a success also in political terms. The debate proved very intense in 2000 and 2001 on the issue of where exactly the new hospital should be built, with sit-ins, collection of signatures, a suggested referendum and competing proposals on the table, and also the selection of the contractor spurred criticisms, especially among the local entrepreneurs who had pioneered the idea to use project financing. These debates are still resurfacing now and then, but they never really touched upon the basic idea to rely on a public-private partnership. Whereas other health-related partnerships have been heavily criticized in the media, over the last few years the new Sant’Anna Hospital had to weather minor storms only, mainly linked to accessibility, such as complaints about the inadequacy of bus and taxi connections, or some of the technical features of the underground parking that led to leakages and mould formation.

This political success can probably be explained with the fact that the private partners did help distribute risks, especially in the construction phase, but all in all contributed only a limited amount of resources to the overall venture.

\(^{17}\) Statement by the Governor of Lombardia, Mr. Roberto Formigoni, on the day of the official inauguration of the new Sant’Anna Hospital (“In Italia, il tempo medio per la realizzazione di un ospedale è di 12 anni. Il Sant’Anna è stato costruito in meno di tre”); the source of this information is unknown, but the figure seems realistic, taking into account that construction work is often stopped due to delays in the disbursement of governmental funds.
The most optimistic assessment estimates the private contribution at slightly less than 43% (71.3 out of 166.7 million Euros), but other sources reduce the input by private partners and increase significantly the overall price tag for the new hospital. As a consequence, the availability fee does not weigh very heavily on the balance sheet of Sant’Anna Hospital Trust; a more significant amount is due every quarter for the management fee, but a similar amount would be paid anyway if other suppliers provided the same services.

The only concern to be raised is about the profitability of the investment for private partners, which appears high once compared to the amount of risk they actually bear, as in many other cases in Italy and abroad. The private shareholders declared an internal rate of return on the equity investment of 11.5%, which seems very good, even more taking into account that the project was awarded at a time (2005) of very low inflation and interest rates. Chances are the actual internal rate of return could be higher than the declared figure; moreover, the new Sant’Anna Hospital is proving popular among patients, and increased activity volumes are likely to improve profitability even further. This issue did not feature in any debate surrounding the new facility, but such an internal rate of return seems high taking into account that the fee setting mechanisms turn it de facto into a guaranteed profit.

These remarks lead to a broader question. The project can ultimately be considered a success, both in technical and in political terms, although maybe not in financial terms, but the private partners contributed only a relatively small share of the resources used to build the hospital. What is, therefore, the appropriate role of public-private partnerships in health services provision? The new Sant’Anna Hospital in Como seems to suggest that private sector partners should be involved in the venture, but without taking centre stage. First, the involvement of private partners does reduce the amount of money public partners are expected to dole out in order to build a new hospital, and helps spread the payback over time, especially when ceilings are in place for public sector debt. Secondly, the fact that their financial commitment would only be paid back once the hospital starts functioning creates a strong incentive to complete construction work according to schedule. Third, the presence of a single company overseeing operations and maintenance, as well as its strong ties to the company that built the hospital, can be a major source of efficiencies compared to the alternative of having the hospital management trying to coordinate separate bids related to different non-clinical services. On the other hand, though, a limited contribution by private partners translates into a relatively small availability fee, that in turn reduces the risk of crowding out other expenditures or reducing strategic flexibility for the top management of the hospital. This balanced approach to public-private partnerships has been actively pursued by the Regional Administration of Lombardy since the late Nineties, all in all with good results. The challenge for the future is to make sure that this model can work also in the absence of the sizable contributions made available by the Central Government with National Law 67/1988.
5. References


Regione Lombardia (no date), Como Nuovo Ospedale Sant’Anna: la persona al centro del progetto, Milano: Regione Lombardia.

Tartaglia A. (2005), *Project financing e sanità: processi, attori e strumenti nel contesto europeo*, Milano: CLUP.

Case Study: Finland

PPP Project Case Study: Coxa, Finland (integrated hospital care)

1. Introduction
Finland has a tax-based (NHS, Beveridge) funding system. There is a high degree of decentralisation, with 400+ municipalities which are responsible for health promotion, primary care, rehabilitation and secondary hospital care. These have been formed into 20 hospital districts. In turn, these districts are clustered into 5 university hospital districts (originally, provinces) offering tertiary hospital care.

The Coxa Hospital for Joint Replacement (Tekonivelsairaala Coxa Oy) is situated in this institutional environment. The hospital provides services to the Pirkenmaa Health District of c.500000 patients (around 80% of the hospital’s workload in 2008-2009) alongside three local hospitals, all feeding into the Tampere University Hospital. Coxa also deals with patients from four other adjacent hospital districts (1.2 million people; 10-15% of the workload) and to a certain extent is a reference centre for the whole country. National referrals together with international and private patients which while not a priority are accepted amount to 2-5% of patient numbers.

Coxa opened for operations in 2002. The project resulted from a number of drivers. Replacement of major body joints was the fastest growing specialty in orthopaedics and traumatology, and this type of medical procedure has the advantage of being in most cases elective and relatively stand-alone. There was awareness in Finland that there will be a shortage in future of trained healthcare staff, and at the same time a need for cost-containment. Further, it was felt that joint replacement surgery was not being carried out effectively in economic or clinical terms in the region and for that matter the country; apart from the three district hospitals and the University Clinic, a private hospital was also treating these patients, and several of these facilities were operating at sub-optimal scale.

2. Type of PPP, structure or arrangement, services to be provided
Coxa is a Special Purpose Vehicle company, running a hospital franchise or concession. That is, the hospital company has only the one venture. This operation covers the design, finance, construction, facilities management and operation of the building and equipment, together with the clinical services offered within the unit.

The hospital only carries out orthopaedic procedures - using an inserted prosthesis, or via some other mechanical repair - of articulations in the body. This is mainly of the hip and knee, but also ankle, shoulder, elbow and wrist. The majority of joint replacements carried out are “primary” (that is, removal of a natural joint damaged by injury or more likely eroded by osteoarthritis, with a prosthesis variously composed of metal, ceramic or plastic parts). A proportion of the operations carried out is “revisions”, where an existing artificial joint is removed to insert a new one; such operations are usually more difficult than primaries since bone was removed at the time that the first prosthesis was implanted, and the patient will be older. In the case of knees, in 2009 around 150 of the annual 1350 operations were of this kind; for hips, 300 of 1300. The number of replacements of other body joints is much smaller (e.g. one wrist replacement in 2009), with very few revisions of such joints. The growth of the orthopaedic market can be seen in that the predecessor hospitals carried out 1150 operations in 2000.
3. Design of the PPP and award procedure

The issue of Finnish clinical quality standards judged as inadequate mentioned in the Introduction above emerged in the 1990s from, for example, a national study of endoprosthetic surgery. The study recommended that services should be concentrated in fewer and more specialised provider units. Around the same time, new government legislation encouraged municipalities to purchase from the private sector, to reduce waiting times, and thus private sector provision - but closely integrated with the public system - has become a prominent part of Finnish healthcare. In particular, Tampere, together with the cities of Oulu and Raisio, has an internal purchaser/provider split within the municipalities, making it easy for them to contract for private care. The first attempt by the Pirkenmaa hospital district to resolve the clinical standards and demand issues on endoprosthetic treatment was a proposed simple joint-venture with the private, not-for-profit Orton Hospital in Helsinki. Orton does some work under contract to public healthcare organisations but otherwise focuses on self-pay or insured patients, including health tourism from, for example, Russia. However, these discussions were not successful. Pirkenmaa then contracted, from the Finnmedi consultancy, a thorough review study of options. This report advocated a concentration of services and new models of care (systematised care pathways) for the district, with the intention of supplying the new capacity to meet the growth of demand but at reduced treatment cost and with higher medical quality.

A relevant point is that the Pirkenmaa District, supported by its two universities, had a tradition of innovation-based change, including an existing out-sourced, “public utility”, Laboratory Centre. Independent provision had thus been established as an option for the public system. The Finnmedi study favoured an alternative going further than such out-sourcing of a public albeit independent department like this, instead advocating the formation of an arms-length (though the length of the arm can be questioned: see below), limited-liability company. It appears that competitive tendering for the initiation or structuring of this company was not used. Instead, several public-sector entities simply established the Coxa company, which incorporating a 20% share for the private German Wittgensteiner Kliniken AG and 5% for Orton. The Coxa company so founded then let contracts for design and subsequently turn-key construction to develop the facilities. ICT, an essential part of the hospital concept in tying together clinical and business operations, was also outsourced.

Coxa is now the largest hospital in Scandinavia specialising in orthopaedic procedures. It does more than 10% of the major joint replacements in Finland (quoted in footnote 3, cross-referenced against footnote 8).

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19 This is a similar rationale to the specific development of Independent Surgery and Treatment Centres (ISTC) in the UK; see the accompanying case study on this point.

20 J. Teperi et al, The Finnish Health Care System: A Value-Based Perspective. SITRA Reports 82. Helsinki, 2009. This report indicates that “condition-specific care units”, organised around medical conditions or groups or types of care, have become common in Finnish hospitals, though this is rarely carried across to full Integrated Practice Units linking specialist care in hospitals with the (primary care) health centres. Arguably, the way the Coxa model works, with cooperation with the other hospitals and primary/community care, is a partial version of an IPU. However, there is not integrated budgeting (bundled reimbursement for the full cycle of care, such as an HMO or year-of-care tariff) given that Coxa quotes a price just for its part of the patient pathway.


22 It is not clear why the negotiations broke down. Orton is a highly-respected, charitable foundation hospital, and the market for private healthcare contracting by the public sector in Tampere would have allowed such a new entrant.
Table 1  Coxa’s ownership.

<table>
<thead>
<tr>
<th>Shareholder</th>
<th>Original (2001) %</th>
<th>Current (2013) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pirkanmaa Hospital District</td>
<td>35.0</td>
<td>62.3</td>
</tr>
<tr>
<td>The City of Tampere</td>
<td>20.0</td>
<td>20.6</td>
</tr>
<tr>
<td>Wittgensteiner AG</td>
<td>20.0</td>
<td>0</td>
</tr>
<tr>
<td>Orton (&quot;Invalid Foundation Hospital&quot;)</td>
<td>5.0</td>
<td>0</td>
</tr>
<tr>
<td>Etelä-Pohjanmaa Hospital District</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Kanta-Häme Hospital District</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Päijät-Häme Hospital District</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Vaasa Hospital District</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>City of Mänttä-Vilppula</td>
<td>0</td>
<td>1.7</td>
</tr>
<tr>
<td>City of Sastamala</td>
<td>0</td>
<td>1.7</td>
</tr>
<tr>
<td>City of Valkeakoski</td>
<td>0</td>
<td>1.7</td>
</tr>
</tbody>
</table>

When Fresenius AG in Germany bought Wittgensteiner Kliniken, the relevant shareholding in Coxa was sold on via SITRA to Terveysrahasto Oy (a SITRA Health Fund), since Fresenius at that point did not wish to develop an international hospital business; Terveysrahasto in turn sold its participation to Pirkenmaa Hospital District in 2009. Orton sold out, also in 2009. All of the shareholders are now public sector. Coxa Hospital is therefore not a “Public Private Partnership” in normal conventional sense that private sector partners own or control any part of the organisation, but only in relation to the independent management of operations of the company. Effectively, Coxa is now a subsidiary of the Pirkenmaa Hospital District, albeit self-managed and with debt financing tied to its operations.

Even in the early days when there were private shareholders, the management suggested that the owners set no formal binding profitability target for the hospital\(^2\)\(^3\), though – see below – there appear to be some ROI guidelines.

4. Source of financing

The share capital of the Coxa company was €2.86 m. It has been publicly stated that the majority of the cost of construction was raised from commercial banks. It appears that this was on the basis of “project finance” or “limited recourse finance”, in that the Coxa balance sheet or the developed capital investment as such were not the security for the loans but rather this was a lien on future income streams. Details of the financing terms, or the

reimbursement schedule, are not known, though there has been mention of loans of 15 years duration.

5. Declared investment costs
The data are not available.

At the beginning in 2002, Coxa had 5 operating theatres for 26 beds (+ 10 recovery) – a very high ratio. This expanded by 2008 to 6 operating rooms for 54 beds (16 recovery). The current total is 10 operating theatres and 72-75 beds, though some operating room capacity is sublet back to the university hospital since demand has not expanded as fast as was expected, and the UH needs extra facilities for other surgery. The surgical processing capacity is still very large compared to patient space. With 75 beds, estimated capital cost for the facility would be of the order of €20 million.

6. Contractual framework, risk allocation, governance
Coxa is formally structured as an independent company, able to sell services to the dominant shareholder (Pirkenmaa Hospital District) but also to other districts, nationally or the private market including health tourism. Indeed, the hospital has to compete for work from all of its clients. As a private firm, it can engage to raise finance and spend capital without public sector constraints as such, off the balance sheet of the state though of course under shareholder (now all public) agreement. Ultimately, Coxa can go bankrupt though, as with many PPPs in essential services, state actors might choose to step in. It has not been revealed whether there is any kind of guarantee from the public sector for the finance, nor the nature of the contracts held by Coxa or whether they are intermediated by the University Hospital.

The Pirkenmaa Hospital District – the true controlling shareholder of Coxa – uses metrics to monitor performance of the hospital. These include patient lists and waiting times, patient satisfaction, limits on the proportion of operations carried out under guarantee, growth of sales from other geographic areas, a return on equity target, and various process targets (infection rates etc.).

7. Payment mechanism, cost per patient
Coxa bids each year on price for block contracts on work from the hospital districts, which estimate their required volume (given the market, this should be rather predictable). The price for the interventions offered and for that matter the granularity of the price structure is commercially confidential. Based on the hospital’s turnover (€82.3 m. cumulated over the years 2006-8) and the reported number of joint replacement operations during this period (8600), the average cost per patient appears to be about €9600, inclusive of prostheses. This would be possibly on the high side for international experience. In Finland, Orton quotes €10000 for either hip or knee replacement, though less for non-prosthesis orthopaedic surgery such as shoulder rotator cuff repair (€3600) so the average across operations on joints might be thought to be lower than €10000.

Turnover rose from €12.7 million in the start-up year of 2003 to €29.6 m. in 2010 (more or less stable since the mid-2000s). The company earns a profit which is somewhat variable between €200k to around €3 m.; informally, there appears to be an expected 5% rate of return on the investment in the assets and also a return on equity (see reference 8).

24 There is a “customer guarantee” on revisions, such that if a revision is needed for “technical” reasons within a 2 month post-operative period, the paying municipality receives it for free; and one required to be done within 10 years is at a discounted price.


8. Average hospital stay, surgery delay
The patient information page on the Coxa website suggests that patients spend 2-3 days post-operatively in the hospital and “the majority move straight to their own home after the hospital stay”\(^\text{27}\). A 2010 presentation by the CEO of the hospital mentions an average in-hospital stay of 4.5 days. On the other hand, a 2008 published analysis of the Coxa care chain and procedures\(^\text{28}\) suggested that the normal stay of a patient in Coxa itself is 2-3 days after the operation, followed by 3-4 days in a post-operative care unit (rehabilitation centre). The latter appear to include local hospitals and three health centres. The care provided in these rehabilitation facilities is much less medicalised than in Coxa proper. Long term follow-up after first review in Coxa is carried out under the responsibility of the local hospitals, unless something goes wrong (joint failure etc.), whereupon the patient would be admitted again to Coxa for a revision. If the 2008 or 2010 presentations are accurate, an ALS of 4.5-6.0 days would be low, but not exceptional, for modern orthopaedic practice.

Waiting times before access to Coxa is 3-4 months (there is a legal limit for a wait for surgery of 6 months). The hospital regards the current access time as an irreducible minimum. It is low in international terms.

9. Patient and staff satisfaction
Coxa has the highest-ranking results in THL surveys (Finnish government research agency for healthcare) among hospitals. The referenced Hankela presentation reports that treatment given by different professional groups was rated well/very well by over 94%. Over 71% were concerned about adequacy of family involvement, and there were fears about discharge and coping at home.

In the 2008 "Best Workplaces in Finland" survey, Coxa was 4\(^{th}\) among 75 participating organisations. Salaries for surgeons are structured around base fee plus bonus, which links the pay to the number of operations in a certain time and their complexity and results in higher pay compared with regional hospitals. Coxa surgeons do 200-250 operations a year (Reference 13) – more than many individual hospitals carry out. Nurses work under a pay system which depends on continuous professional development, and also appear to earn more than normal for the region.

Coxa supports a substantial research programme, including doctoral research theses and international publication.

10. Lessons learnt, published reviews
Coxa in some respects does not provide in-house its own services, but rather has co-use of Tampere University Hospital facilities and services:

- radiology and various specialist clinical consultation services;
- pharmacy and laboratory services;
- catering;
- FM (maintenance and cleaning);
- telecoms;
- emergency medical and ICU services\(^\text{29}\).

In the other direction, there are agreements between Tampere University Medical Faculty, Tampere University Hospital and Coxa, whereby Coxa trains orthopaedic residents for 4-6 months. There is no published material

\(^{27}\) http://www.coxa.fi/en_US/potilaaksi-coxaan/tekniivelleiekauksen-jaekeen.html, accessed 26/03/2013. Care should always be taken with ALS definitions – "gross" (including arrival and departure days) or "net"?

\(^{28}\) Sirpa Hankela, “Insightful Encounters - Regional Development and Practice-Based Learning”, Conference on Regional Development and Innovation Processes, March 5th-7th, 2008, Porvoo - Borgå, Finland. Note this article is based on 2005 data.

\(^{29}\) http://www.integratedcare.org/Portals/0/congresses/Finland/Presentations/Coxa%20hospital%20presentation.pdf Teemu Molainen was a Professor of Orthopaedics at Tampere University Hospital and closely associated with the development of Coxa. Comparable information is given in Reference 8.
indicating the nature or pricing of the Service-Level Agreements for these varied shared facilities and services. The true financial status and independence of Coxa as a company is therefore very difficult to determine: much of its cost base is covered, at unknown prices.

The hospital appears to be effective clinically – for example, deep wound infection rates were 0.66% across primary/revision hips/knees between 2003-6, relative to a reported 1-2% average in Finland. Survival rates for knee arthroplasties is higher than in average Finnish hospitals (in other words, implanted prostheses last longer before failure). Similarly, process efficiency is high, with e.g. a 16 minute theatre preparation time compared to 1.5 hours when orthopaedic work was carried out in the University Hospital.

The advantages of the Coxa model for the public health system can be summarised as:

- Rather extensive integration with the local public healthcare organisations, in terms of processes and the associated IT systems;
- Tight control of medical pathways, with consistent and comprehensive use of ICT between the primary and secondary settings;
- Governed by public shareholders, without major profit abstraction and where the public sector can determine strategy and tactical aims. The districts are not as such bound to “buy” from Coxa, but appear to do so since the price/quality ratio is favourable.

For the shareholders (albeit that they are all public):

- The enterprise is incorporated, so has some economic independence;
- Similarly, in organisational terms, it can be flexible and efficient and, for example, the employees work without civil-service like conditions, and under salary incentives (as elaborated under “Patient and Staff Satisfaction”, above, and in the reference in footnote 12);
- There are some private and overseas patients, adding to the revenue stream.

For the patient, there is:

- A patient-friendly environment;
- A modern hospital with attractive in-patient rooms;
- Short waiting lists and waiting times.

Note that a “Heart Centre”, offering full-service cardiac care (cardiology and cardiac and thoracic surgery), has been established within the Tampere University Hospital, copying some elements of the Coxa PPP model. There has been discussion about setting up “focus factory” units for eye treatment, vascular surgery, neuro-centre and bone & joint centre (traumatology, hand surgery, reconstructive plastic surgery). In this context, a question which it is not possible to answer at present is whether Coxa is a success because it is a focused activity facility, or whether because it is a is based around PPP principles (economic independence and private sector disciplines.

30 Based on Reference 8. Care should be taken here. Specialist orthopaedic units typically have quite low infection rates, because of the predictable nature of the process and the ability to screen patients for elective work, both of which are different from the undifferentiated and uncontrolled nature of patients entering a general hospital. For example, the English Royal National Orthopaedic Hospital (a specialist unit, about four times the size of Coxa, offering similar though perhaps more advanced services than Coxa) had zero cases of MRSA 2008-December 2012 and about 3 cases of C.diff per year: infection rate of 0.03%. The Finnish national average is from Reference 8, though the comparability of the data is not clear.

**Case Study: Czech Republic**

**Prague Military Hospital project**

i. **Type of PPP (secondary/tertiary hospital, diagnostic center, treatment etc), structure of the arrangement, services to be provided**

In 2004 Czech Government decided to start pilot PPP projects on the state level. All the ministries were asked to recommend a project from their pipeline suitable for PPP. Prague Military Hospital (PMH) was the project selected by the Ministry of Defence (MoD). In 2005, the new PPP centre identified this project as one of their 4 initial pilot PPP projects. An advisor was hired that would have to provide an outline business case within 3 months.

The advisor was appointed in 2006. The winning advisory team was composed of Deloitte Czech Republic as financial advisors, Atkins as technical advisors and Havel & Holasek as legal advisors.

The project was split into two parts:

- a. A commercial part, initially to provide 250-300 hotel beds, later reduced to 139-room hotel for outpatients, hospital visitors, and medical conferences organised by the hospital but involving demand risk for the private partner;
- b. A public part including 250 beds to accommodate staff, a new hospital main entrance building, commercial area and other leisure facilities and a parking
- c. No clinical services to be included in the contract

ii. **Design of the PPP and award procedure (especially if we can find out why PPP model had been chosen)**

The hospital has a 25-year design, build, finance and operate model and is worth around EUR52m. The private partner will bear the construction and service availability risks. The procuring authority, the Czech Republic Ministry of Defense and Armed Forces, will make fixed availability payments.

At the initial state, the main objectives of the project were:
- Accommodation for CMH clients (260 beds of hotel category***+),
- Accommodation for CMH staff and candidates undertaking exams to be admitted to the Czech Army (240 beds),
- Car-park (300 parking places).

Other possible outputs of the project, included:
- New entrance gate into the premises of the CMH for pedestrians as well as vehicles, including connection to surrounding communications,
- Information centre for CMH patients and clients,
- Flexible layout conference rooms,
- chapel,
- catering and connected services,
- rehabilitation and wellness centre, including 25m swimming pool,
- demolition of unfit buildings,
- central park,
- commercial activities (depending on the results of competitive dialogue).
In September 2007, the Government approved the Outline Business Case which includes proved the suitability of the PPP procuring route. It comprises a feasibility study and a value for money test. The initial OBC showed the following value for money:

<table>
<thead>
<tr>
<th></th>
<th>PSC  (thousands CZK)</th>
<th>PPP  (thousands CZK)</th>
<th>VfM (thousands CZK)</th>
<th>VfM(%)</th>
<th>Length: building/ operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMH Prague</td>
<td>850 707</td>
<td>592 005</td>
<td>258 702</td>
<td>30,4%</td>
<td>2/25</td>
</tr>
</tbody>
</table>

Source: PPP Pilot Project Analysis, Ministry of Finance (undated).

Sources of financing (private, public, mixed)

KBC Group and Unicredit were the lead financial arrangers, and were appointed by Government taking financing out of the competition. Details of financing were as follows:

Equity/Debt ratio = 23/77

Equity was divided as follows:

Project Sponsor
Sponsor Total Equity
Equity Allocations

<table>
<thead>
<tr>
<th></th>
<th>Prague Military Hospital Consortium</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR12m</td>
<td></td>
</tr>
<tr>
<td>Metrostav : EUR3m</td>
<td>25%</td>
</tr>
<tr>
<td>ECP : EUR9m</td>
<td>75%</td>
</tr>
</tbody>
</table>
iii. Total declared investment

Investment cost estimates increased during project preparation and negotiation phases:
Initially identified as a EUR13 million project as part of the new PPP Centre’s pipeline of PPP Projects.
Subsequently an Outline Business case was prepare which estimated capital expenditures at around EUR15 million (2008). This OBC was approved by Government in 2008.
In 2009, at bidding stage, the estimated investment amount had doubled to EUR 30 million.
The rising costs were due to the fact that the first cost estimate was only a rough estimation. Moreover this first estimation was done before financial crisis so the conditions dramatically changed to the time of signing of contract.
Furthermore the project scope changed many times – the overall aim to reconstruct PMA stayed the same but there was no clear opinion which other needs the project would fulfill.
The tender was won by Prague Military Hospital Concession Consortium and the contract was eventually confirmed by the caretaker government of Jan Fischer a few days before the May 2010 general election. In 2010, at financial close, financing was arranged for EUR 52 million. Value for Money tests were
done for the new estimates and the project was still deemed to have Value for Money.

iv. **Main lines of contractual framework, including duration of the contract, flexibility of the contract, contractual obligation, risk allocation and governance and administration**

The Ministry of Finance in cooperation with PPP Centrum prepared a standard PPP contract based on UK experience. But it was not binding it was only developed to support PPP. Therefore the contract for PMH was developed specifically for this project. It was a 25 years DBFO. The private partner will bear the construction and service availability risks and demand risk on conferences to be organized by the hospital.

v. **Payment mechanisms, especially in case of cost escalation**

Payment mechanism was based on a fixed annual availability payments from grantor to contractor.

vi. **Cancellation and lessons learned**

The project was cancelled in summer 2011 after announcing in late 2010 that the project would be restricted in scope in order to save costs. At the time of cancellation the project was worth 1.3 billion Czech Koruna, or EUR 50 million. Reasons for cancellation included:

- The anti-trust office warned that the competing bidder would challenge the tender if the structure were be changed after contract award;
- The need for austerity measures at the time made the project too expensive;
- The project was accompanied by media speculations about the high price. At first 13 million Euros was mentioned, but it was gradually rising.

The private partner was compensated for it’s project development costs only, as the construction had not yet started. The decision to cancel had a negative impact on other central PPP projects and on public opinion.

This experience showed that in order for a PPP project to be successful it has to have political support and full political will to implement. PPP project should only be prepared for projects that are really needed (the reconstruction of PMH is not continuing as a traditional project, so the project was not vital for PMH/MoD).
Case Study: Sweden

The New Solna Karolinska PPP development, Stockholm, Sweden

1. Introduction
The new Solna Karolinska hospital PPP development was originally featured as a case study in the WHO publication (2009) Capital Investment for Health. Case studies for Europe, as part of the European Observatory study series. The case study describes the background leading to the decision to replace the existing Karolinska hospital, the concept development for the new project and the reasons for the decision to adopt a PPP model for its financing and construction.

2. Context
In April 2008, the Stockholm county assembly decided to proceed with construction of the ‘New’ Solna Karolinska (NSK) hospital to replace the increasingly dated and outmoded existing hospital and research facilities. In June 2008 the assembly decided that the procurement model should be a public-private partnership (PPP). The assembly further agreed that investment expenditure should not exceed €1.45 billion for the new hospital and research buildings and that the new facility should open in December 2015. The project development phase was launched in October 2008 by the county council inviting interested parties to submit tenders for a contract to design, build, finance and operate NSK. There were important qualifications:

- Provision of clinical services would remain the responsibility of Stockholm County Council as public owners of the hospital and not be included in the PPP contract;
- Medical equipment would not be included in the public-private partnership procurement;
- Most hard and soft facility management services, as well as the patient hotel and parking, were included in the public-private partnership (some were already outsourced);
- The contract period would be 30 years following financial closure;
- There would be a buy-back clause at the end of the contract;
- The compensation (payment for access) model would follow international practice for public-private partnership agreements within the health sector;
- The county council encouraged innovation and lifecycle considerations and expected parties submitting tenders to present proposals regarding alternative and improved solutions, allowing the project programme to be further developed, in accordance with the stated project goals.

Bernd Rechel, J. Erskine, Martin McKee, B. Dowdeswell, Capital Investment for Health, 2009, WHO Regional Office for Europe
The principle of a “negotiated” public-private partnership process was adopted, comprising three stages:

- stage 1: prequalification of bidders;
- stage 2: preparation of tender;
- stage 3: evaluation, negotiation, appointment of the winning bidder, and signing of agreement.

The total time period for the procurement process (up to completion of stage 3) was expected to be 18 months and to be completed in April 2010.

The rationale to adopt the model of a public-private partnership was guided by a belief that this would bring three potential benefits:

- Certainty of cost: the private sector was believed to have the necessary experience to deliver the project on cost; risks would be allocated to the party best able to manage it and there would be advantages accruing from a long-term contract;
- Certainty to deliver: there were believed to be strong incentives for the private sector to deliver on time and the private sector was believed to have the relevant experience to accomplish this;
- Better value: deriving from design innovation and lifecycle cost considerations embedded in the contract framework.

In essence this was almost identical to the UK NHS private finance initiative (PFI) and in practice Stockholm County based their strategy to large degree on the UK PFI model.

These benefits are claimed for most public-private partnerships yet the adoption of this model elsewhere has been controversial and doubts have been expressed about realisation of the benefits claimed (McKee et al. 2006). For example, in the United Kingdom the Royal Institute of British Architects (RIBA) has expressed concern that, despite the Private Finance Initiative (the United Kingdom equivalent of public-private partnerships) being used almost exclusively as the procurement model for the National Health Service hospital building programme for over a decade, PFI project design still fell well short of expectation and potential (RIBA 2005).

The NSK project sought to address these key concerns. First, there had already been a significant investment in terms of time and resources in stimulating good design, mainly through a preliminary design competition aimed at generating new and imaginative ideas for the future of NSK. Furthermore, the winning design would be available as a template for further development and negotiation by the successful bidder.

Second and very important, bidders were required to address the issues of adaptability and flexibility explicitly. The brief to bidders stated:

“Central programme issues concern both the general applicability of the building, as well as their flexibility. The strategy is to design generally applicable buildings to enable the flexible utilization of premises, allowing the buildings to be

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33 Martin McKee, Nigel Edwards, Rifat Atun, Public–private partnerships for hospitals, European Observatory on Health Systems and Policies, London School of Hygiene and Tropical Medicine 2006
34 RIBA Consultation: Introducing Smart PFI, 2005 Royal Institute of the British Architects UK
adapted to future requirements and medical technology at low cost”.

Furthermore, the county council also stated it:

“wished to encourage innovation and lifecycle consideration and expects parties submitting tenders to present proposals regarding alternative and improved solutions”.

This represented a significant step forward from most current public-PFI projects that have tended towards low-cost building and maintenance solutions, with price the principal decision criterion. Conventional PFI projects have also been confined by rigid contract structures that mitigate future flexibility and adaptability.

3. The rational for original inclusion of NSK as a candidate case study for the PPP study

The previous case study noted that in regard to the stated intention to adopt a more flexible and open-ended approach to delivering a more adaptable and responsive PFI solution “the devil will be in the detail of the final contract structure necessary to ensure these aims will be achieved. At this stage, this remains work in progress. However, it is interesting to note that the underlying principles are similar to the ‘Smart PFI’ ideas proposed by RIBA (RIBA 2005)”.

The study (Rechel et al, 2009) further noted that: “NSK is still at a very early stage of development and it is not possible to judge whether it will achieve its ambitious goal of becoming a landmark development. So far, signs seem to be promising. It has emerged from a comprehensive assessment of future service need, resulting in a new hospital concept with an emphasis on long-term sustainability. NSK potentially confronts the key issues facing tomorrow’s teaching hospitals, most notably the importance of investing in facilities that support continuing innovation and knowledge diffusion, and allow rapid advances in clinical technologies and models of care. These will be essential if university hospitals are to remain leading players in a highly competitive international arena. Time will tell whether the New Karolinska Solna will be able to achieve these aims.”

The NSK PPP was therefore considered to be included in the list of the case studies in this contract on the basis it may have moved on from the conventional rigid and inflexible contract structure of the UK NHS PFI model, in essence PFI mark 2. This has proved not to be the case. Further analysis of work in progress on the NSK PPP demonstrates the inherent reluctance of PPP operators to take on service led adaptability risk.

4. NSK work in progress on the PPP project

The vision and aims of NSK remain the same:

“The new Karolinska will be Sweden’s leading University Hospital and a world class leader at the centre of the world’s major areas of life sciences”

- To provide healthcare, research and education of excellent quality;
- To provide a hub of a national ad international competitive university medical care system;
- To provide specialized and highly specialized healthcare;
• To assume a central role in the development of the Stockholm region as a leading bio-medical centre.

However, the adoption of a conventional PFI model resulted from practical issues that emerged between the pre-qualifying exercise and the final bidding stage. At prequalifying stage a number of large-scale contractors had expressed interest (Vinci, Balfour Beatty, John Laing etc). However when the final bidding process was over and the procurement announced it stood clear that only one company had submitted a bid, Swedish Hospital Partners (SHP). SHP is a joint venture between Skanska (the Swedish construction company) and Innisfree, a private equity fund from the UK. The consortium is not new and they have together undertaken a significant number of UK NHS PFI hospitals. The interesting fact is that the tender was awarded without any competition. There are two questions:

• Why did only one company submit a bid?
• What happened to other international bidders?

A subsequent interview with the vice president of Skanska offered an explanation (Hoffman, 2011). The reason for the low level of participation was the risk transfer implicit in the PFI model. No Swedish companies were sufficiently confident of managing the risk involved and other international companies withdrew interest given the extremely large scale (and the consequent substantial financial risk) of the contract at €1.45 billion, the largest PPP project in the world to date. In comparison with a conventional turnkey contract where the private entity bears on average around 50% of risk, the PPP risk averages around 80% for the construction and lifecycle maintenance risk (Hoffman, 2011). It seems likely therefore that any attempt to incorporate service related ‘adaptability’ risk in the negotiation of the contract would have led to there being no bidder left in the process. Although details of the contract remain unpublished and unavailable (commercial and in confidence) there is good evidence to point to the contract structure being virtually identical to that adopted in UK PFI models.

Torbjörn Rosdahl, Stockholm County Commissioner for Financial Affairs has stated (2013) that: “Skanska’s task is to deliver a new modern hospital. Since we have a contract with them through this agreement until 2040, it allows us to know exactly what the costs will be until then,” “In today’s monetary value, the expenses will not exceed €1.45 billion. That includes financing, planning, construction, service and maintenance until 2040. It cannot become more expensive than that. As County Commissioner, my job is to ensure that the economy is in order. By building this new hospital through public-private partnership, I know that things will be stable until 2040. This model gives us both the security and the right conditions. The model that is being used to build NKS is taken from Great Britain. For example, the County Council took on a great deal of the finances to bring down the interest on the mortgages”. Note: Stockholm County raised almost 50% of the financing cost including a €300 million contribution from the EIB.

Furthermore standard (public) presentations on the development by Skanska continue to reinforce the conventional PFI nature of the project i.e.

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• “Design, build, finance and operate and maintain the project;
• Hard and soft facility management, (excluding catering for patients);
• No interim services, no medical equipment and only nominal ICT;
• 25 year contract from date of completion (now 2015) plus a further 15 year extension option at end of first term contract;
• Availability-based revenue.”

Where NSK has moved beyond the PFI led hospital redevelopment programme in the UK is the extent of detailed planning for the new clinical model for the hospital. In view of the final ‘fixed’ configuration of the hospital, albeit based on the initial concept resulting from the design competition, a great deal of thought has been given to the future clinical model. This reinforces the concept described in the original case study.

5. Conclusion

It is now clear that NSK has not developed a new PFI model instead it has reverted to adoption of the ‘standard’ UK NHS PFI model. The project was won by a company with extensive experience of UK PFI. It has established the normal PFI organisational structure including sub-contracting soft FM. No contract details are available or published; the reason given is that this remains commercially sensitive. The proceedings of the council meeting at which the contract decision was agreed have not been published nor are they available on request. There is therefore no way of undertaking a detailed comparison of the Karolinska PPP model with the UK NHS model although evidence (as above) points firmly to consistency in nature and structure.

As the hospital will not be operational until 2015/16 there is naturally no possibility of anticipating performance standards. As the original intentions to develop a new form of PFI contract has not materialised (the rationale for inclusion of NSK in this study) its inclusion as a new case study does not add value and is therefore unwarranted. In any event the overall strategy for the project has been extensively covered in the original case study and as there have not been any material changes in the NSK service model (excepting for some updating) inclusion in the PPP study would simply repeat what has already been published. For these reasons NSK was withdrawn from consideration.
1. Objective

This analysis of PPP literature aims to provide:

- An analysis of the overall trends in PPP/PFI procurement in the health sector across the EU since 1990, identifying the current challenges, especially in the conditions of economic and financial crises;
- Insight in macro (fiscal) impacts of health PPPs on the national health systems and on Government deficits and Government debt, from the perspective of the Eurostat national accounting norms (but also from a sovereign rating perspective);
- Insight in the macro economic significance of PPP in the healthcare sector.

Global evaluation of healthcare PPPs is patchy, most studies provide little specific comment on healthcare. Although, for example, Portuguese PPP hospitals have been operating since 2007, there have been no studies which evaluate them. Well over a decade after the first PFI projects went operational in the UK, there continues to be a lack of project evaluation. This desk research is therefore mainly based on literature that deals with PPP in general, and made more specific to the healthcare sector based on our knowledge of healthcare PPP models.

2. Overall trends in PPP and PFI procurement

Reasons for governments to enter into PPP/PFI contracts

Literature on PPP provides economic justifications for the government to enter into PPP arrangements. One of the main reasons governments do PPP is that they are likely to increase efficiency by aligning incentives of the parties involved. This allows governments to provide public services at a lower cost to society\textsuperscript{37}. Various reports and theoretical papers underline the ability of PPP to create higher efficiency due to the private sector’s innovative power, advanced management skills and better-structured incentives. Being in charge of both design and construction as well as maintenance (and in some cases operations) of the health care facility, the private sector is expected to put greater effort into the initial design and construction phase, to optimise life cycle cost and thus, reduce operating and maintenance costs. According to a recent study\textsuperscript{38} which analysed 45\% (132 out of 295) acute hospitals of the Spanish SNS, those hospitals with “non-traditional forms of management” – including concessions but also public consortia – reported better performance in the relevant efficiency indicators. Further, privately run hospitals save 39\% on supplies and report 37\% higher activity levels with production cost 27\% less than that of public hospitals under direct public


management. (IASIST Nov 2012). Although some stakeholders claim that this is achieved by reducing medical staff, the numbers show modest differences, 4.4 workers per bed in the non-traditional hospitals versus 4.7 workers per bed in the hospital managed directly by the SNS under public sector work rules. Considering the important of staff management issues in the provision of health care, transferring labour related risks is a critical success factor.

An Australian study\(^{39}\) of 21 PPP projects as compared to 33 traditional projects\(^{40}\) concludes that PPPs demonstrated benefits ranging from 30.8% when measured from project inception, to 11.4% when measured from contractual commitment to the final outcome. Unfortunately, no literature is available showing similar comparisons in the health sector. Between the signing of the final contract and project completion, PPPs were found to be completed 3.4% ahead of time on average, while traditional projects were completed 23.5% behind time. The overall conclusion is that PPPs provide superior performance in both the cost and time dimensions, and that the PPP advantage increase s (in absolute terms) with the size and complexity of projects. There is however no scientific literature available that verifies that these economic results are actually obtained for a significant number of health care projects in other EU countries. Most literature focusses on transport infrastructure.

Another important reason for governments to engage in PPP’s is that they can help overcome budget constraints through private financing of infrastructure. In a PPP, any upfront government payments are relatively limited as compared to traditional public projects. Typically in the health sector, cash contributions from the government are spread over the project life. Reducing government deficit and government borrowing, at least in the short run. As such, PPP’s can support higher investment and growth in countries with tight budget and weak fiscal positions. Eurostat developed rules on the statistical accounting of PPP\(^{41}\). In summary, an asset can be kept off the Government budget and off Government debt in cases where the construction risk, the financial risk and either the demand or availability risk are transferred to the private partner.

Engel et. Al (2009)\(^{42}\) state that from the point of view of incumbent governments, PPPs have the advantage of allowing them to exceed spending limits. This is because poor accounting standards allow governments to use renegotiations to increase spending without oversight. For governments that are already overleveraged this is dangerous practise.

This feature of renegotiations leads to observable predictions, namely that

- In a competitive market, firms lowball their offers, expecting to break even through renegotiation;
- renegotiations compensate lowballing and add additional expenditure;


\(^{40}\) Unfortunately we have not come across any specific data/studies on comparison of health care PPP projects to healthcare traditional projects.


\(^{42}\) Engel, E. et al (2009), Soft budgets and renegotiation in Public Private Partnerships.
• the government uses renegotiation to increase spending and shift the burden of payments to future administrations;
• there are significant renegotiations during construction.

A simple solution was suggested in the article to include PPP investment, including renegotiations, as current expenditure in government budgets would eliminate the incentive to aim for renegotiation and to push PPP projects even if the government can very likely not afford them.

Reducing the overall tax burden is another driver for PPP. Tax competition between European Union member states, driving people in businesses to the member states with the lower tax ranges, have made it difficult for Member States with high tax burdens to raise tax burden any further. PPP’s and off-balance sheet financing can reduce the tax burden in the short term, by shifting tax payment to user payment (this only goes for user-payment based PPPs such as toll roads, tunnels and bridges etc.) and by spreading public investment over a number of years.

A macroeconomic analysis of the World Bank database on private participation in infrastructure concludes the following regarding the trends and determinants for PPP:

1. A PPP contract would be preferred to a purely public contract when the operating costs of the PPP contractor were lower than twice the tax burden that had to be raised if the government acted alone, plus its associated dead-loss weight to society. So the higher the tax burden needed to recover an investment, the more likely the government will choose to procure as a PPP. Similarly, the higher the tax burden in a country, or the higher the overall public spending the more likely the government is to enter into PPPs;
2. The higher the macroeconomic uncertainty, the longer the project will be postponed;
3. The discount rate associated with the project also influences the timing of a project: the higher the discount rate, the more the investment will be deferred, higher discount rates show higher cost of capital and therefore, projects with lower return on investments are not viable in higher interest environments;
4. The more implicit or explicit guarantees, the more investment a project will attract, but also the more fiscal risk for the government;
5. The size of a market/economy influences the share of PPP investment in GDP;
6. The share of PPP investment in GDP grows when private investment in a country grows;
7. The nominal lending interest rate is found to have a negative and statistically significant effect on PPP investment;
8. Support from international financing institutions or other external aid has a positive effect on PPP (Fiscal) impacts of PPP on macroeconomic level.

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43 Scherrer 2011.
44 Some countries used PPPs in order to avoid raising taxes or borrowing to finance public investment, especially if their tax burden (Tax Revenues/GDP) was already high by European and international standards, as was the case of Portugal.
3. Macroeconomic significance

Macroeconomic significance of PPP is hard to establish. To understand the relevant of health PPPs, it would be useful to compare the value of healthcare PPPs to total government investment in healthcare. However, this is complicated because:

- Comparison of stock (PPP projects) to flow variables (government investment) is a comparison of apples and oranges, however, data can be made more comparable by spreading the PPP investments somewhat arbitrarily over five years, to compare them to government investment flows;
- Capital expenditures on those PPPs that are recorded in Government accounts are also included in government investment figures;
- Data on exact PPP investments and government investments in health sector are not publicly available.

An EIB study\(^{46}\) compared health sector PPPs to government investment in PPP per sector. The following graph is taken from that study. It shows that for the health sector it turns out that PPPs are a significant source of investment in the UK, starting from about 5% of total investment in 1990-1994 to as much as around 40% of total investment in the period 2005-2007. In all other countries, health sector PPPs are only about 1% of total investment in the health sector and are therefore of limited macroeconomic significance. However, the UK example does show potential for health sector PPPs to become much more significance for the development of the healthcare sector.

**Figure: Estimated PPP investment flows in health and social work relative to total investment in health and social work (in percent)**

Source: EIB 2010.

Impact of PPP on a macroeconomic level consists of:

- Impact on aggregate public and private investment;
- Fiscal impact;
- Fiscal risk;
- Economic growth and social welfare.

These topics are discussed in more detail in the following sections.

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4. Impact on aggregate public and private investment

There is little evidence from the health sector specifically about the macroeconomic impact of PPP. However, a macroeconomic analysis of PPP and its policy implications\(^{47}\) in the other sectors suggests that higher PPP investment is likely to raise the aggregate private investment. PPP grows as private investment in a market grows. Higher PPP investment is associated with lower public investment in the future to the extent that public infrastructure investments are anticipated and accelerated, capacity needs are met or exceed and budget sustainability may arise when projects are remunerated by taxpayer rather than the users.

5. Fiscal impact

PPP has an impact on the fiscal position of governments. Desk research of academic literature provided the following insights:

1. Larger PPP programs (for example in Latin America) are likely to ease future fiscal positions, due to higher payments to the government (in case of user charges or concession fees), lower maintenance costs and lower future government investments. This is not proven for smaller PPP programs. For PPPs in the health sector, this is less evident since it is typically the Government that finance the operation of the private partner under the PPP contract, not vice versa. In case of efficiency in maintenance the payment from Government to private contractor may be lower than in traditionally government-run health care facilities, but academic evidence is lacking;

2. Investment costs of the projects undertaken through PPP contracts could be placed ‘off balance sheet’ and off-budget, allowing more budget and room for lending for other projects. There are however an increasing number of experts that emphasise future PPP projects should be clearly accounted for in government accounts\(^{48}\). Governments still tend to underreport their contingent liabilities. Countries which use PPPs to finance projects which they could not afford otherwise, do so at their peril and the accumulation of off-budget PPP liabilities raise the risks of cuts in the sovereign rating\(^{49}\). This happened for example in Portugal, where NPV of commercial PPP liabilities represents at least 20% of the direct public financial debt, resulting in the imposition of a freeze on new PPP contracts by Troika in 2011.

3. PPP’s includes the sharing of project risks with the private partner. Therefore, unexpected future government expenditures such as construction costs overruns, higher maintenance and repair costs are also partly transferred to the private partner. This is often neglected as a fiscal impact, since government traditionally does not value the risks involved in its public works and services, and consequently does not allocate any budget to these risks either. On the other hand, transferring risk to the private partner is likely to be costly considering the need to maintain attractive risk/return to private sponsors and creditors. The actual

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\(^{47}\) Checherita, C.D., 2009.


\(^{49}\) Abrantes de Sousa M , (2010) PPP Hospitals in Portugal, EIPA.
risk/return combinations vary greatly by project and especially by country, and by project phase. Whereas the risk/return combination may be optimized at tender, if the procurement was competitive, there are cases where risks are transferred back to the Concedent upon renegotiation without any reduction in the return permitted to the private sponsors. Profit-maximising private firms will not accept risk without compensation, and this will be reflected in any subsidies or other compensation for the project. The question is whether, in the theoretical jargon, “transferring risk to the party best able to manage it/having the least degree of risk aversion (these are not the same thing)” – and therefore reducing the total social cost of handling the risk - is borne out in practice. The statistical evidence is simply not available to decide.

4. It is often argued that the public sector can borrow at lower rates than the private sector can under a PPP, and therefore the financing should be provided by the public sector. The issue is more complicated than that. First of all, many private consortia have in availability- and performance-payment based projects in the past been able to secure loans at a rate very close to the government borrowing rate\(^50\), because the government is their client and governments are as reliable clients as they are debtors. A contract with the government as a client is therefore a strong asset to back the debt. On traditional public projects, the Government (and thus the taxpayer) would always repay the debt, even if the project would fail, because public infrastructure cannot close and the public Concedent has ultimate responsibility for maintaining the services. However, depending on the PPP contract, in theory the government would not bail out the PPP project if it were to go in default on its debt. Instead the equity sponsors would take the first loss and credit banks would carry at list some of this risk. This varies considerably by project and by country, and often the PPP contracts calls for the Government to provide a minimum traffic or minimum revenue undertaking or formal guarantee which is designed to cover senior debt service. Bank creditors nearly always have “step-in rights”. Nevertheless, in most cases, lending to a PPP project is more risky for banks than similar corporate lending and therefore (ultimately) more expensive to the clients of the project (the government and its taxpayers). Thus, under a PPP, the public sector clients have the option to put the debt back to the bank if the project fails, whereas this is not the case for traditional public projects where the taxpayer would always have to pay for the debt. So in a PPP, the risk is at least partially with the private sector and their banks, whereas under traditional procurement, the risk is fully with the Government and therefore the tax payer. One of the main differences is that under traditional procurement, Governments do not value the risks and just absorb them as they come. It has to be noted that in practise, it often occurs that the PPP public service infrastructure cannot be closed down either, so the public partner very often has to bail out the private partner in distressed PPP projects even though it is privately financed – but at least this is limited to the banks, and the equity owners in a failed project would lose most if not all of their asset. In this context, it also has to be emphasised that PPP projects have recently become very difficult to finance if there is no termination clause that states

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that banks (as well as the shareholders) are repaid in case the project were to terminate early. In practice the great bulk of the financial risk therefore very often remains with the public sector, even though the project structure suggests otherwise.

5. There may be cases in which significant direct government borrowing for a large infrastructure investment programmes could push the government’s debt over critical threshold ratios, leading to credit rating agencies downgrading the government’s debt. This will lead to higher borrowing rates to the government. Therefore, implementing the infrastructure investment programme (partly) with PPP including a private financing component may appear to help governments sustain their credit rating and allow them to borrow for other purposes at lower rates than they would have if that infrastructure investment programme would be financed by public budget. However, if the PPP projects rely on taxpayer funding rather than user fees, the resulting PPP liabilities can accumulate as hidden public debt, with delayed but severe impact on the sovereign rating, as happened in the case of Portugal. (Abrantes 2010, IMF 2012)

6. Fiscal risk

Empirical evidence on the role of PPP programs on fiscal risk is mixed. Fiscal risk can be defined as the potential amount of contingent liabilities the Government accepts. This means the amount of uncertainty regarding future Government liabilities. These uncertain liabilities are often not visible in Government budgets, or hard to budget for due to their uncertain nature. Examples are Government guarantees. Fiscal or budget risk consists of the probability that a PPP project may require more budget support from general taxpayer revenues than originally estimated in its financial model or than the Government budget can comfortably support without generating excess deficits or excessive debt which could contribute to a cut in the sovereign rating. Fiscal risks are usually generated by poorly performing projects, due to short-falls in user revenues, or in project where too many of the risks remained with or were transferred back to the public Concedent. Fiscal risks can also occur even with good performing projects, if there are too many of them and too dependent on taxpayer supported availability payments not properly budgeted under a long term PPP liability limit such as an MTEF Medium Term Expenditure Framework.

In light of literature on the subject it the following can be concluded:

1. It is likely that larger PPP programmes may lead to higher fiscal risk, especially if compared to purely public infrastructure;
2. PPP programs in healthcare can trigger fiscal risks especially rising from contingent PPP liabilities, related to availability payments or guarantees for instance from explicit or implicit (minimum revenue) guarantees provided by the government.
3. It is therefore increasingly emphasized by the accounting industry and government auditors that governments should report their PPP liabilities and make them clearly visible in government accounts51. However, many

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governments are reluctant to do so. An example is the UK where PFI’s were in 2009 still not presented as part of the public sector debt. Now that the International Reporting Standards are introduced, the reporting of contingent liabilities underlying PFI projects depends on whether the transaction is recorded as a public sector finance lease and on other technical accounting details (Boardman & Vining, 2010);

4. However, the government also has high, intransparent fiscal risks under traditional public works and services projects in the form of construction, maintenance and operational cost overruns. Research shows that construction cost overruns are much more frequent and much higher in traditionally procured projects than they are in PPP projects. Government traditionally does not value these risks, and they are also not included into national budgets. There is no evidence that a PPP would in general impose a higher fiscal risk on the government than the same project would under traditional implementation\(^52\). It is however argued by critics that PPPs may not go over budget as often as traditional projects do, because PPP project budgets are overestimated in the PSC phase by project sponsors\(^53\).

7. Economic growth and social welfare

This section highlights the effect PPP in the healthcare sector has on the macro economy in a country. No significant impact was detected in academic literature of PPP investment on the economic growth rate, nor is an impact detected for the aggregate private or public investment\(^54\).

However, PPP has delivered significant economic benefits by creating a framework which allows considerable investment in infrastructure, including for example a large building programme of new hospitals in the UK. The English Department of Health has stated to Parliament that “PFI has enabled many more hospitals to be built that would otherwise have been the case” (http://www.publications.parliament.uk/pa/cm201011/cmselect/cmpubacc/631/631.pdf, p7 §4; accessed 25/01/2013. Also see http://www.hm-treasury.gov.uk/ppp_pfi_stats.htm, where the Treasury’s spreadsheet list 117 health projects, of varying size, for England and Wales; others have been carried out in Scotland and Northern Ireland).

Balfour Beatty\(^55\) believes that sustained investment in infrastructure is vital to the future of the economy. This is true provided that the investment is productive and sustainable, meaning that it the return on investment is higher than the cost of capital for the project and for the economy. It is clear that there is a positive relationship between infrastructure spending, the level and growth of GDP and stock market indices. In particular, investment in infrastructure has a higher economic multiplier than other types of

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\(^{52}\) Nickolson, J. 2012, Risk Allocation - What a sponsor must do to get a PPP moving in the region.


government expenditure. Against other forms of spending, investment in infrastructure can be said to produce:

- low reliance on imports thus resulting in greater additional economic activity in the country;
- a heavy reliance on an extended and varied supply chain, thus engaging many different parts of
- the domestic economy; and
- high levels of employment due to the labour intensity of the work.

These points are all true in theory and in general, but not always in specific cases, especially if there is over-investment, low capacity utilization and excessive debt accumulation.

8. Comparison of effect on economy of PPP and traditional public investment

From an economic perspective the appropriate measure of PPP governments’ projects contribution to the economy (as compared to the same project if it were implemented traditionally) is whether they increase economic allocative efficiency and more broadly the aggregate social welfare in a society. So far, specific research on economic allocative efficiency of PPP as compared to traditional procurement is limited. There are however two main reasons for thinking that a PPP may be more efficient than traditional procurement:

- Private sector may be more technically efficient, aspects such as higher economies of scale, prior learning, (micro economic impact);
- Economies of scope allow higher efficiency. If one consortium is responsible for owning, managing and operating a facility for the next 30 years, this allows for activities to be bundled and for long term planning. The private consortium has an incentive to optimise the life cycle costs.

A HNP discussion paper[^56] on Public-Private Partnerships and Collaboration in the Health Sector concludes that potential benefits of PPP include reduced government spending (e.g., eliminating large up-front investments of scarce public funds), greater efficiency (e.g., due to private partners’ operational efficiency), or better healthcare management (e.g., of hospital services and infrastructure). In the health sector, partnering can also be particularly valuable as a method of leveraging technical or management expertise (e.g., performance-based monitoring and incentives), and spurring technology transfer, all of which can lead to quality improvements.

However, only if the more efficient private operator is investing more into the project, or lowering its prices, does this efficiency contribute to economic and social benefits. If not, it only contributes to the profit of the private partner. Increased efficiency is often measured in Value for Money tests. See the next section for more information.

9. Value for money

Many, but clearly not all, governments do a Value for Money test for any public project that will be implemented. Governments need to do two tests: First a cost-benefit analysis to determine if the project is justified and viable, a second a Value for Money analysis against a Public Sector Comparator to justify taking the PPP option. Then, the project sponsors and project creditors analyze whether the project offers an attractive risk return, that is, whether it is bankable. In theory, any PPP structure selected based on this procedure should provide better economic value than the same project would under traditional procurement. However, the approach to Value for Money assessment varies per country and has been criticised by a number of scholars for its lack of depth, accuracy and objectivity (Boardman and Vining 2010). Besides, the Value for Money test is more often than not performed by (or for) the PPP promoter. An alternative was suggested in which Governments select the alternative with the lowest total social costs. Total social cost not only includes production costs, but also transaction costs and externality social costs and benefits to consumers, producers, employees and the government (for example quality, efficiency, wage-levels). Result would be that only PPPs that have higher social and economic benefits (or lower social and economic costs) would be brought to market and thus, PPP would have a positive effect on the economy as compared to traditional procurement. Based on our country reviews, especially Spain and Portugal, total social costs should clearly include the “portfolio effects” of accumulating PPP liabilities.

Some common lessons for successful healthcare PPP projects can be distilled from the case studies in the HNP Discussion Paper:

- Successful PPPs and PPC require clear rules and dedicated experts on both the public and the private sides to allow for smooth planning and transition;
- The skills required for the tender and contracting process are high, and it is particularly important to well define each partner’s risks and responsibilities, fix the terms in advance, and define expectations in a service-level agreement;
- Sufficient time should be built in for partners to transition into new roles and arrangements created under the PPP/PPC;
- Private partners should have a proven-track record and well evidenced expertise in the subject matter, and preferably experience in the country and/or region;
- Quality assurance and performance monitoring should be ongoing and feed into improved management;
- A well-thought out implementation plan, including detailed definitions of business processes and management functions, is critical;
- When possible, piloting the PPP/PPC concept and structure can save time overall and help ensure success;
- Early securing of funding for pilot and the start of implementation is very important to keep the project on track;

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57 Boardman and Vining 2010, based on Globerman and Vining (1996), Boardman and Hewitt (2004) and Boardman and Vining (2008)
- All the key stakeholders should be involved in a well-defined consultation and project development process early on;
- Especially for PPPs and PPC with multiple partners and stakeholders, a well-defined communications, buy-in and change management strategy is of great importance; and
- For effective project management, key lessons included the importance of continuity within the planning team, transparency and communications between partners, careful definition of targets and budget constraints for each project phase, and the importance of coordination and milestones throughout implementation.

There are a number of circumstances under which a PPP approach has proven appropriate and has delivered good value for money to the public sector. These include:

- Projects that allow transferring key project risks such as construction delay and cost overruns to the private sector away from the public sector and taxpayers;
- Projects under which it can be ensured that assets are maintained to a government specified standard over a contractually agreed period, reducing the unfortunate “boom and bust” maintenance spending patterns otherwise evident in much of the government-managed infrastructure estate;
- Projects that include whole-life cost planning and performance of infrastructure rather than making short term decisions based on short term budgets;
- PPP projects that force the public sector to specify in detail what services it requires and understand what it can afford at the outset;
- The long term nature of PFI contracts allows the private sector to procure efficiently and to invest to deliver services economically, including staff training, life cycle maintenance regimes, asset plans and planned rather than reactive maintenance;
- The use of a standardised risk framework by for instance HM Treasury has focused the competition and means there is now a strong competition on an agreed basis;
- The PPP sector has developed a detailed contractual structure which apportions risk to several sub-contractors and financiers, so that risk transfer is allocated to subcontractors who are incentivised to perform or bear the consequences of failing to do so;
- At the outset financiers perform detailed due diligence on assets, costs and contracts using technical advisors to ensure the project will be delivered on time and to budget;
- Contracts which are rigorously managed in order to maintain Value for Money over time.

59 House of Commons (2011), Private Finance Initiative, Written Evidence, evidence provided by PWC.
10. Effect of economic and financial crisis

10.3 How the financial and economic crisis affects PPP projects


- Decrease in the availability of senior debt, and pressure to raise the equity proportion relative to debt (i.e. 90%+ debt levels are unlikely now, more likely 70% or a bit more)
- Rising equity return desired – though it is not clear that this is restricting equity availability
- Shortened term for debt available, which leads to refinancing risks for equity investors
- Credit contraction as commercial banks withdrew from the riskier project finance business (flight to quality) or concentrated activity in their home markets, threatening to leave some projects stranded, just prior to financial close.
- Upward pressure on interest rates on borrowing – although interest rates have decreased to historically low levels, interest rates on project finance loans have increased (especially in developing countries) due to reduced liquidity of the markets, raising the hurdle rate for otherwise viable projects
- Real effects of economic downturn on revenue cash flows due to lower demand of services – this effect is relatively limited in the healthcare sector; but in general it is affecting PPPs in the pipeline phase, reducing the viability of the project. Those in the operational phase suffer reduced cash flows and become distressed
- Projects that rely on direct user charges suffer but projects relying on service payments from the government may be exposed to drops in the credit rating of the sovereign or sub-sovereign payer.
- Rising bank funding costs have caused many banks to suffer negative spreads on thinly priced projects with financial close in the peak years 2006-8. Because of the funding mismatches and of the expected tightening of liquidity and capital requirements under Basel III, many banks are concentrating their deleveraging effort in the (impaired) long term PPP loans, resulting in new secondary market activity. Some banks which have suffered rating downgrades have had to cash-collateralize payment guarantees in favour of the EIB
- Unforeseen exchange rate movements, decreasing value of the Euro – PPPs most affected are those in the operational or construction phase that have unhedged external currency debt.

10.4 Effect of the crisis on PPP healthcare dealflow

The current financial and economic crisis has initially slowed down the number of PPP projects and has brought new policy responses in the form of public...
private partnerships. An example is the US Treasury program to deal with troubled financial assets.

**Figure: Number and value of new health PPP projects in Europe per year**

Source: EIB 2010.

The average value per project in the health sector reduced from around EUR 100 million in the 2001-06 period to around 50 million in 2009. It can be concluded that during the financial crisis, the health PPP market contracted both in number of projects and in size of projects. There was a tendency towards smaller projects, since the total value of PPPs declined more than the number of projects.

10.5 Public Private Partnership in turbulent times

PPPs have been affected by the financial crisis that hit the world in late 2008. Like in other areas, it is not quite certain how serious and severe the consequences will be for PPPs. The whole politics of PPPs debate has to a great degree taken on new emphasis, as a result of the global financial crisis from 2008 onwards. In literature, there are two different future scenarios for PPPs:

1. a sceptical, technical and pessimistic interpretation
2. an optimistic, wholistic and political interpretation.

**A sceptical and technical interpretation:** PPPs have been discredited by the financial crisis: PPPs have been affected hard by the financial crisis. Between late 2007 and early 2010, the dominant trend has been a reduction of private sector sources of capital for infrastructure stemming from the global financial meltdown and an increase in cost of capital from remaining lenders.

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Banks have reduced their long-term credit facilities. The Macquarie Group (and the Royal Bank of Scotland) have undergone major restructuring. Other commercial banks have failed, resulting in consolidation’ (Boardman & Vining 2010: 354-355). The financial crisis had an ‘immediate negative impact on the volume of PPP projects in member countries’. The overview of the OECD (2010) said: ‘As credit markets dried up, debt capital became next to impossible to acquire by SPV’s (special purpose vehicles) and new projects that had not already been finalized largely came to a standstill. In response to these developments, a number of countries made efforts to unclog the PPP pipeline by making financing available in different forms. The United Kingdom chose to do this by setting up a unit within the Treasury that acts like a private sector bank: TIFU, the Treasury Infrastructure Finance Unit. France and Portugal chose to set up a guarantee scheme.

An optimistic and political perspective61: The partnership ideal in which we aim to get the best of the government (in defining common interests) and the best of the private sector (to generate wealth) will not go away. There will be even more demand for PPPs in various forms in the future. The policy challenges are increasingly becoming too great for anyone organization to cope with them alone. In the European Union, the Commission is shifting its attention towards PPPs in a broader policy perspective. The Commission wants PPP to be a defining feature that shall cut across many of the other policy areas. Instead of just being a policy that is relevant to the transport or infrastructure sector, a PPP policy is more about the role of European governments in the economy (European Commission 2009).

11. Potential intervention measures

A number of interventions have been suggested to reinvigorate PPP during the financial crisis by facilitating access to finance or improving the risk-return balance. IMF62 provides an illustrative list of the range of measures, with the risk exposure of the government increasing as one goes down the list:

- Concession extension to allow the private partner to generate the return needed for the viability of the project;
- Output-based subsidies to promote the use of the facility
- Grants or construction subsidies, provided there is a source of Government funds
- Minimum revenue guarantees by the Government ensuring that the private partners can service their debt;
- Exchange rate guarantees by the Government for foreign private companies to cover their income if the Euro loses value as compared to their own currency;
- Government guarantees for the repayment of all project debt;
- Subordinated loan provided by the government on which the private company can draw if needed, enhancing the bankability of the senior debt;


• Equity measures for example allowing the private partner to sell equity to the government at a guaranteed price
• Exercise of step-in-rights allowing the government to step in in case of contractor failure and re-tender the PPP or take over operation of the facility, which is standard in most public sector projects.

What nearly all of these proposed PPP remedies have in common is to retain or transfer more and more PPP project risk to the public partner in each project. This may not be a credible solution if the Government is already overleveraged and the sovereign or (subsovereign) rating is under stress.

12. **Key principles for implementing measures:**

To avoid excessive fiscal risk exposure to the government, VfM should always be maintained and some key principles should be followed while selecting the measures:

• Intervention in both existing and new projects should be justified on economic grounds
• Interventions should support the wider fiscal policy stance
• Measures should be quantified and included into the (MTEF) medium term budget framework;
• Government measures should be contingent on both macro and project circumstances, once the country gets out of the recession the situation of the PPP project may improve and government measures should become obsolete;
• Access to public support should come at a price, any government measure that acts as insurance should be prices accordingly;
• Interventions should seek to maintain VfM for the public partner over the life of the project, that is, public support should not cover losses due to risks originally assumed by the private sector.;
• The policy should be publicly disclosed, including all the details of renegotiations.

13. **Potential effect of PPP projects on macroeconomic and fiscal situation during economic and financial crises**

The IMF paper also highlights important vulnerabilities of PPP to the crisis. PPP vulnerabilities are either project specific (those that can be managed within the project’s structure, such as unhedged high level of foreign currency debt) or partnership vulnerabilities. Partnership vulnerabilities are more complicated to manage and involve potential fiscal risks to the government. An example is that the likelihood of more guarantees being called during times of economic downturn, such as the payment guarantees in favour of the EIB, without appropriate provisions in the budget to cover the resulting obligations. Even in case no Government guarantees exists, there can be contingent liabilities relating to contractor default or project renegotiation.

Furthermore, in times of economic and financial crises, the long term contracts that the Government has entered into may result to impact the fiscal and macro-economic situation in a country because PPP based on
government service payments reduce flexibility for Government austerity measures. In times of austerity and cuts in public spending, a PPP contract has the potential to force greater cuts in non-PPP sectors because the fact that PPP contractual obligations are not compressible prescribes the annual payment from the government to the private partner. The spending on existing PPP projects can therefore legally not be cut, leaving less room for government to manoeuvre in times of economic downturn. This may in turn negatively affect the recovery of an economy during economic turmoil.

This is also stressed by a representative of of NHS63:

“PFI creates a fixed obligation: income needs to be maintained to meet costs for the lifetime of the contract. When NHS PFI contracts were planned, future income looked stable. However, under the proposed reforms to the NHS there will be greater competition between NHS organisations, potentially making income less stable. The need for providers to maintain patient numbers and therefore income also makes it harder to change the way care is provided and move care out of hospitals (either to provide better care for patients, to reduce costs, or both).”

The rigidity of PPP contractual obligations depend to a great extent on who is taking volume and price risk. In the case of infrastructure-only project remunerated on the basis of a fixed rent, usually indexed to inflation, the private partner may be taking very little project risk but quite a lot of counterparty credit risk if the public partner suffers sharp drops in its credit rating.

Future PPP and traditionally implemented capital projects need to consider whether contracts can be designed with the flexibility needed to more easily allow organisations to change the way they operate and adapt to a more competitive market. For example, by passing on more risk to the private investor for the life of the building, not just its design and completion. This option would need to be carefully balanced against a potential increase in costs demanded by the investor.

14. Managing PPP vulnerabilities to economic downturn

IMF identifies keys to managing the PPP partnership vulnerabilities:

- Robust public investment planning and selection procedure for PPP, which needs to be subject to the same budget constraints as traditional procured public investment
- Adequate distribution of risks between partners, insuring that better value for money (VfM) can be realized and maintained if the party that controls drivers of VfM also bears the risks associated with it.
- A sound legal framework, the more transparent and credible the legal framework, the less risk premium will be charged by private partners of a PPP, at tendering and in renegotiations over time
- Regulations limiting aggregate government exposure such as limits to annual total PPP related payments and contingent commitments and limits to total size of the PPP program;
- Good institutional arrangements and consolidation of the learning curve within the public sector

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• Transparency in PPP finances, making transparent all PPP related fiscal risks and long-term commitments and the terms of all renegotiations, including awards of arbitration panels

15. Conclusions and recommendations

Governments have entered into PPP contracts in the health sector for various reasons. Academic literature suggests that countries with an already high tax burden are prone to prefer PPP above traditional public works and services. Governments should enter only into the PPP contracts that provide Value for Money as compared to traditional procurement, based on more efficient implementation and risk allocation. Governments also enter into PPP contracts or programmes to reduce the immediate budget contributions and to spread government payments over the contract life. This can have economically beneficial effects, but to implement PPP in the current financial and economic crisis, governments have also moved to retain or transfer more and more PPP project risk to the public partner in each project. This may not be a credible solution if the Government is already overleveraged and the sovereign (or subsovereign) rating is under stress.

In the UK, the health PPP programme has a significant economic impact. 40% of all investments in healthcare were implemented as PPP projects in the period 2005-2007. In other countries, this was less than 1%. Country study of UK shows that UK PFI hospitals are faring far worse under the tightening austerity measures, in particular the levering down of tariff rates by commissioners. Most of the so called efficiency gains in the NHS last year emanated from forced tariff reductions and one off non-recurrent savings. There has been no meaningful reductions achieved through innovation or changes in operating practice, nor will there be without wholesale hospital reconfiguration and downsizing. PFI/availability payment projects offer very little flexibility in times of austerity since annual payments are contractually agreed.

Fiscal impact of PPP in the healthcare sector include (i) relaxing short-term budget constraints by financing assets off balance sheet, (ii) transferring risk to the private sector reduces government fiscal liability but can also be costly (iii) private borrowing rates are higher than public ones, but especially in the case of large investment programmes government borrowing could push the government’s debt over critical threshold ratios, leading to credit rating agencies downgrading the government’s debt and increasing the cost of overall government borrowing.

Fiscal risk of PPP projects and programmes rise from contingent liabilities, for instance from implicit or explicit guarantees provided by government. However, traditionally implemented works and services contracts also have implicit fiscal risks associated with construction, maintenance and operational cost overruns. These are hardly ever valued or accounted for in public budgets. It is however recommended that governments improve the accounting of their contingent liabilities for PPP projects.
Infrastructure investment is vital to economic growth and social welfare. PPP allows faster implementation of investments and is therefore believed to have a positive effect on economic growth, to the extent there is no excessive investment. However, in academic studies, no significant impact was detected of PPP investment on the GDP growth rate.

The economic and financial crisis impacted healthcare PPP by reducing the number of deals and the average size of the projects. Credit availability decreased and interest rates increased and projects were more vulnerable to unexpected exchange rate movements. PPPs are not appropriate financing instruments for risk averse times. In Europe, even the EIB seldom takes project risk.

Governments can reinvigorate PPP during the crisis in various ways, for instance by allowing a longer concession period, providing Government subsidies or grants or guarantees. It is however very important that the government always maintains VfM, that the interventions are economically justified, that they support the wider fiscal stance, that they are quantified and included into the budget, that access to support comes at a price in line with market prices (for instance insurance premium), and that the policy is publicly disclosed.

During the financial crisis, PPPs in healthcare can also have a negative effect on the recovery. Contractually-agreed annual payments leave no room for austerity and therefore any austerity measures in the healthcare sector will be directed at other aspects such as outpatient care, medical services, number of beds available and so on (including of course projects which do not have the take-or-pay commitment of repayments.

To the extent that healthcare PPPs are mostly financed by local sponsors and banks, risk concentrations can create a negative feedback loop between the banks and the public debt

Recommendations for future PPP projects in the healthcare sector are:
(i) A more measured debate about the use of PPP/PFI is needed.
(ii) Future contracts need to consider whether more risk can be passed onto investors without significantly raising costs or deterring investment. For example, in most cases investors currently carry the risk associated with designing and completing a building, but not the risk in helping such buildings in the future to change (in terms of their function or redesign) to allow organisations to respond to changes in demand for their services. Whatever changes are adopted to contract design for capital projects, it will be necessary to ensure the mechanisms used for paying organisations reflect the true cost of maintaining buildings and replacing them.
(iii) PPP contracts need to take account of the fact that many European countries need to contain health expenditures given their excess debt and the ageing of the populations.
(iv) Calling on more Government support in the form of subsidies, grants and guarantees for PPP projects is not a credible long term solution, if it implies even greater burdens for overleveraged Governments and exempts the

64 House of Commons (2011), Private Finance Initiative, Written Evidence, NHS contribution
project sponsors and the creditors from the responsibility of doing in-depth due diligence when choosing which project to invest in.
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