PUBLIC-PRIVATE PARTNERSHIPS AND COLLABORATION IN THE HEALTH SECTOR

An Overview with Case Studies from Recent European Experience

Irina A. Nikolic and Harald Maikisch

October 2006
Health, Nutrition and Population (HNP) Discussion Paper

Public-Private Partnerships and Collaboration in the Health Sector: An Overview with Case Studies from Recent European Experience

Dr. Irina A. Nikolic (M.Phil., Ph.D.)\textsuperscript{a}, Dipl.KH-BW Harald Maikisch (MSc, MAS)\textsuperscript{b}

\textsuperscript{a} Europe and Central Asia Human Development, the World Bank, Washington, DC, United States of America
\textsuperscript{b} Deputy CEO, Vorarlberg Hospital Management Company, Vorarlberg, Austria

The preparation of this brief builds on analysis, presentations and contributions by the World Bank team delivered at the workshop on Public-Private Partnerships in Health, financed by the Austrian Trust Fund, and held in Vilnius, Lithuania in June 2006 in coordination with the Lithuanian Ministry of Health.

Abstract: This brief is intended to provide an overview of the topic of public-private partnerships (PPPs) and public-private collaboration (PPC) in the health sector, the key types of PPPs and PPC encountered in practice, the associated benefits and risks, and good practices for ensuring success. Also included are nine recent case studies from European experience that illustrate these considerations under specific project circumstances. This overview is not intended as a detailed analysis of the theory and practice of PPPs and PPC in health, and excludes public health partnerships at supranational levels (e.g., global health partnerships or disease-specific partnerships).

Keywords: public-private partnerships, PPP, public-private collaboration, healthcare, Europe, contracting

Disclaimer: The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

Correspondence Details: Irina A. Nikolic, The World Bank, 1818 H Street, NW, Washington, DC 20433, USA, Email: inikolic@worldbank.org, www.worldbank.org
# Table of Contents

LIST OF ABBREVIATIONS AND ACRONYMS ................................................................. vii  
ACKNOWLEDGEMENTS .............................................................................................. ix  
PREFACE ................................................................................................................... xi  
PART I – INTRODUCTION .......................................................................................... 1  
PART II – DEFINITION AND KEY TYPES ................................................................ 2  
PART III – POTENTIAL BENEFITS AND RISKS TO MANAGE ............................... 5  
PART IV – HELPING ENSURE SUCCESS.................................................................. 8  
PART V – REVIEW OF RECENT EUROPEAN EXPERIENCES ................................. 11  
  PRIVATIZATION OF OUTPATIENT DIALYSIS SERVICES, ROMANIA .................... 13  
  CATERING AT THE CHARITÉ CLINIC, GERMANY ................................................ 14  
  SHARED REGIONAL HOSPITAL STERILIZATION SERVICE, AUSTRIA ............... 15  
  NATIONAL e-HEALTH PORTAL, DENMARK ........................................................ 16  
  BETTER IT FOR BETTER HEALTH, GERMANY .................................................. 17  
  HOLISTIC CARE CENTER WALDVIERTEL, AUSTRIA ........................................... 18  
  PRIVATIZATION OF ST. GORAN’S HOSPITAL, SWEDEN .................................... 19  
  BUILD, OWN, AND OPERATE PPP AT BERLIN-BUCH HOSPITAL, GERMANY ... 20  
  COMPREHENSIVE PPP PROGRAM, PORTUGAL ............................................... 21  
REFERENCES AND NOTES..................................................................................... 23  
SELECTED FURTHER READING.............................................................................. 25
# LIST OF ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>DRG</td>
<td>Diagnosis-Related Group</td>
</tr>
<tr>
<td>ECA</td>
<td>Europe and Central Asia</td>
</tr>
<tr>
<td>ECSHD</td>
<td>Europe and Central Asia Human Development Department of the World Bank</td>
</tr>
<tr>
<td>ECSPE</td>
<td>Europe and Central Asia Poverty Reduction/Economic Management Department of the World Bank</td>
</tr>
<tr>
<td>EIB</td>
<td>European Investment Bank</td>
</tr>
<tr>
<td>EPR</td>
<td>Electronic Patient Record</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EUR</td>
<td>Euro</td>
</tr>
<tr>
<td>GP(s)</td>
<td>General Practitioner(s)</td>
</tr>
<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>ISO</td>
<td>International Standards Organization</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>KAV</td>
<td>Hospital Association Waldviertel</td>
</tr>
<tr>
<td>KHBG</td>
<td>Krankenhaus-Betriebsgesellschaft m.b.H.</td>
</tr>
<tr>
<td>MNSHD</td>
<td>Middle East and North Africa Human Development Department of the World Bank</td>
</tr>
<tr>
<td>MPAV</td>
<td>Medizinprodukteaufbereitung Vorarlberg GmbH.</td>
</tr>
<tr>
<td>NHIF</td>
<td>National Health Insurance Fund</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health System</td>
</tr>
<tr>
<td>NPV</td>
<td>Net Present Value</td>
</tr>
<tr>
<td>PFI(s)</td>
<td>Private Financing Initiatives</td>
</tr>
<tr>
<td>PSCV</td>
<td>Holistic (Psychosomatic) Care Center Waldviertel</td>
</tr>
<tr>
<td>PPC</td>
<td>Public-Private Collaboration</td>
</tr>
<tr>
<td>PPP(s)</td>
<td>Public-Private Partnership(s)</td>
</tr>
<tr>
<td>SCC</td>
<td>Stockholm County Council</td>
</tr>
<tr>
<td>SEK</td>
<td>Swedish Krona</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

This brief was authored by Irina A. Nikolic (Health Specialist, ECSHD, the World Bank), as the principal author, and Harald Maikisch (Deputy CEO, Vorarlberg Hospital Management Company).

The preparation of this brief builds on analysis, presentations and contributions by the World Bank team delivered at the workshop on Public-Private Partnerships in Health, financed by the Austrian Trust Fund, and held in Vilnius, Lithuania in June 2006 in coordination with the Lithuanian Ministry of Health. The World Bank team included Jan Bultman (Lead Health Specialist, ECSHD), Armin Fidler (Sector Manager, ECSHD), Katja Kerschbaumer (Legal Specialist, ECSHD), Jack Langenbrunner (Sr. Economist—Health, Middle East and North Africa Human Development), Thomas Laursen (Lead Economist, Europe and Central Asia Poverty Reduction/Economic Management), Irina A. Nikolic, and Pia Helene Schneider (Economist, Task Team Leader, ECSHD). The team of consultants to the World Bank who contributed to this workshop included Harald Maikisch, as well as Clemens Rissbacher and Bernhard Gunert (Institute for Healthcare Management and Health Economics, University for Health Sciences Medical Informatics and Technology, Tyrol, Austria).

Further to the comments and suggestions provided by the World Bank team listed above, the authors are grateful for the input provided by the following colleagues: Robert Taylor (Principal Financial Analyst, IFC Advisory Services), Chiaki Yamamoto (Private Sector Development Specialist, IFC Development Effectiveness), April Harding (Sr. Economist—Health, Latin America Human Development), Catherine C. O’Farrell (Sr. Investment Officer, IFC Advisory Services), and Maria-Luisa Escobar (Lead Economist—Health, Latin America Human Development).

The authors are grateful to the World Bank for publishing this report as an HNP Discussion Paper.
PREFACE

This document provides an introduction to the topic of public-private partnerships and collaboration in the health sector, a menu of options available to governments, and a review of potential benefits and risk mitigation measures to help ensure success and sustainability. While public-private partnerships and collaboration in the health sector hold a promise of benefits, application of this approach needs to be carefully considered in all individual cases, and costs and benefits evaluated up-front in a fact-based and accurate manner. Further, the applicability of this approach will depend on certain pre-conditions being met, such as, for example, the presence of adequate legal and judicial frameworks or sufficient capacity to introduce and manage these types of projects and to mitigate other risks described in this paper. For the same reasons, international experiences described in the case studies contained in this paper may not be easily transferable between countries.

The World Bank’s ECSHD unit is available to provide advice, conduct policy dialog, deliver targeted workshops, and support financing needs related to the topic of this paper as appropriate. To learn more about the work of the unit, please visit the World Bank’s website at www.worldbank.org, under Europe and Central Asia/Health.
Discussion of Public-Private Partnerships and Collaboration (PPPs and PPC) in the Health Sector is important and timely in light of the challenges the public sector is facing in healthcare finance, management, and provision. Many governments are confronted by fiscal constraints that force them to carefully prioritize and restrict public expenditures. Moreover, many public health systems are already indebted and face further fiscal pressures, such as the need to provide care to increasingly aging populations, improve quality, or invest in often expensive medical treatment and technology advances.

For those governments that wish to explore this approach, turning to the private sector can, when appropriately structured and executed, help address specific cost and investment challenges, deliver improvements in efficiency (e.g., improved service provision and management at reduced costs), and enhance service quality (e.g., increased expertise, more rapid and substantial investments in infrastructure and new medical technologies, a potential to attract and retain better performing staff). However, leveraging partnerships and collaboration with the private sector to address the challenges governments face in healthcare today may not be easy. PPPs and PPC may take a long time to establish and bring to fruition, and in many cases may not be the most effective or efficient option available. Careful evaluation of the conditions for success and sustainability is required on a case-by-case basis so as to assess the costs and benefits and the likelihood of success of such an approach.

This brief is intended to provide an overview of the topic and the key types of PPPs and PPC encountered in practice, the associated benefits and risks, and good practices for ensuring success. Also included are nine recent case studies from European experience that illustrate these considerations in specific project circumstances. This overview is not intended as a detailed analysis of the theory and practice of PPPs and PPC in health, and excludes public health partnerships at supra-national levels (e.g., global health partnerships or disease-specific partnerships).
PART II – DEFINITION AND KEY TYPES

PPPs and PPC in the health sector can take a variety of forms with differing degrees of public and private sector responsibility and risk. They are characterized by the sharing of common objectives, as well as risks and rewards, as might be defined in a contract or manifested through a different arrangement, so as to effectively deliver a service or facility to the public (1). The private sector partner may be responsible for all or some project operations, and financing can come from either the public or private sector partner or both.

In practice, several key types of PPPs and PPC are frequently encountered in the health sector, as listed in the following figure and discussed in more detail below (2).

Key types of public/private partnerships and collaboration in health sector

Contracting-out involves publicly-financed investments aiming to improve efficiency and/or quality by awarding a service contract, a management contract, a construction, maintenance, and equipment contract, or various hybrid contracts to serve a specific need or situation, or a lease to a private partner or partners.

Service contracts are entered into by public and private partners for provision of a defined service (e.g., laboratory services, catering) aiming to leverage comparative advantages of a private partner, such as experience or advanced technology, to improve efficiency and/or the quality of the service. Management contracts involve transfer of authority from a public partner to a private partner to manage a public facility and provide services, including full responsibility and authority to manage all necessary functions and staff (e.g., employ and manage staff, procure medicines and equipment), with the objective of enabling more efficient management. Construction, maintenance, and equipment contracts are typically entered into for development, refurbishment, or maintenance of a healthcare facility. Hybrid contracts may involve a variety of elements of the contracts mentioned above to serve a specific need or a situation, such as an IT

Sample benefits:

- Efficiency
- Quality
- Cost- and risk-sharing

- Concessions
  - Backed by government guarantees/other fiscal incentives
  - Supported by government or third party purchase contracts
  - Free-standing

- Private Financing Initiatives

- Other types, typically without government guarantees, including:
  - Divestiture/privatization
  - Free entry
  - Other (e.g., provisions for health savings accounts)
contract providing for both the building and operating of the infrastructure, or a health facility management contract requiring the private operator to also refurbish or upgrade the facility. Leases involve a private partner paying a fee to the public partner to manage and operate a public facility in exchange for revenues from the facility’s operation, typically with the objective of improving the facility’s financial situation by introducing more efficient management. Under a lease contract, the government typically remains responsible for major new investments in the facility.

Concessions are arrangements with the private sector in which, for existing facilities, asset ownership remains in public hands but where the private partner is responsible for new investments, as well as operating and maintaining the existing assets. Concessions can also be used for new facilities, with the private sector partner responsible for design, construction and operation. Different contract types, such as performance-based management contracts, leases, build-operate-transfers or even divestitures under license, can be used and have various degrees of underlying risk allocated to the public and private parties. A typical example of a concession would involve the private partner financing construction of a facility and being repaid over time through a service charge to the public partner, revenues from the facility, or a combination of the two. Concessions typically shift much of the investment risk to the private sector, although the government often provides an explicit or implicit guarantee to protect the private partner against the risk of lower than expected revenues or other risks.

Private Financing Initiatives (PFIs), which normally involve a concession contract, have evolved in practice as a distinct means of funding major capital investments in the health sector through financing provided by private partners. In the United Kingdom’s PFI, which is probably the best known example, private consortia enter into long-term contracts with the government to finance, build, and, less frequently, manage new projects (e.g., a consortium may finance construction of health facilities that are then leased by public partners). PFIs have been a subject of an ongoing cost-benefit debate, and as with all PPPs or PPC, their applicability and use need to be evaluated carefully both as a matter of policy and on a case-by-case basis (e.g., by assessing the need for the project overall, using up-to-date public comparator methodology).

Divestiture/privatization involves a sale of a public facility and transfer of ownership to the private partner, including transfer of all commercial risk. Free entry allows for private partner participation in a project without contract with the public sector or the government (e.g., franchising). In these cases, operational and investment risks typically rest with the private partner. While the government does not usually provide any guarantees, it may provide support by adjusting the regulatory framework or offering financial incentives (e.g., tax breaks) to influence the private partners’ behavior.

The specific format of PPPs and PPC in any given situation will depend on the regulatory framework, which often needs to be adjusted to accommodate new types of partnerships and collaboration. Beyond enabling PPPs and PPC, the regulatory framework plays a critical role in assuring and promoting the quality of healthcare services resulting directly or indirectly from any such arrangements. That may include establishing or revisiting
quality assurance policies and indicators, monitoring and enforcement mechanisms, accreditation and licensing systems, a patient rights framework, as well as other related regulations (e.g., effective oversight structures, labor regulations to help facilitate performance-based staff management).
PART III –
POTENTIAL BENEFITS AND RISKS TO MANAGE

Partnering with the private sector carries the potential for meaningful benefits to be gained for the public partner and the health sector. Potential benefits can 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.

Partnering can also reduce or better allocate risks (e.g., the private partner may be better able to manage cost and schedule overruns). Appropriate convergence of interests and expertise in a PPP or PPC in practice may also lead to a better managed project execution. Finally, in a PPP or PPC, the public partner can take steps to ensure that the above-mentioned benefits are obtained, the risk is minimized, and that public funds are used in accordance with the partnership’s stated objectives through introduction of payment and reward mechanisms that set incentives for better performance and improved outputs.

There are also important risks to manage, and planning an effective PPP or PPC involves careful review of the allocation of financial risks and rewards, decision-making mechanisms and responsibilities, and the applicable regulatory and contractual framework. Accordingly, an accurate up-front evaluation of the likely trade-offs and benefits is key to appropriately designing and pro-actively managing a PPP or PPC. Such evaluation can uncover risks stemming from an inadequate regulatory framework or low institutional capacity, which may need to be addressed either through special provisions built into the contract or through separate reforms undertaken by the government (e.g., enhancing accreditation systems, updating patient rights policies, enabling transparency in health providers’ performance).

Other situation-specific risks may also need to be addressed, such as the frequently encountered risk of creating excess capacity or new capacity in the wrong place in the health system. Such risks can be mitigated through an effective planning and licensing system that allows for a needs-based distribution of services. In many situations, an adequate licensing system should not only selectively issue licenses to operate health facilities based on a set of pre-defined criteria, but might also include the option of a special regulation of high-risk interventions, such as, for example, through a so-called certificate of need procedure (3).

A diligent up-front evaluation is also critical for ensuring financial responsibility and managing fiscal risks for the public partner. Analysis of unsuccessful projects often reveals a hastily or inappropriately designed arrangement that might in effect shift
spending off-budget, defer sizeable fiscal costs, obscure higher private financing costs, or excessively shift costs to the public sector. Appropriate fiscal risk mitigation requires that the fiscal costs and risks of the contractual obligations in a partnership or collaboration be identified and quantified upfront. Furthermore, while PPPs and PPC are not a new approach, some governments have yet to develop sufficiently sophisticated legal and institutional frameworks for their management, including effective methods for evaluating and accounting for fiscal risks, as well as the institutional capacity and expertise required to capture benefits while mitigating the associated risks.

Some sample measures for fiscal risk mitigation are provided in the table below (4).

<table>
<thead>
<tr>
<th>Examples of objectives and measures for fiscal risk mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
</tr>
<tr>
<td>Risk awareness</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Risk disclosure</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Better accounting, budgeting, and fiscal planning</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Pro-active risk management</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Contracting risks can be best managed through clear and well-considered division of roles and responsibilities. To ensure that efficiency gains made by the PPP are shared between the public and private partners, contracts may need to include variable payment levels that allow appropriate benefits to be captured by the public sector. Transparency in the bidding and contracting process, as well as the contract arrangements themselves, should help eliminate incentives for any potential asset-stripping and rent-seeking behaviors by the private partner. At the same time, the sharing of risks and rewards is a key driver for a quality private partner to enter into a collaboration/partnership, and the public partner should ensure that contracts are based on realistic evaluations of the situation and do not transfer unmanageable risks to the private partner or excessively curtail performance incentives.

The choice of private partner should be guided by well thought-through criteria in accordance with the specific need or situation (e.g., financial stability and a proven track-record of experience and expertise in the field), and international best practices should be leveraged in the process of soliciting bids and awarding contracts. In addition, while
taking existing best practices into account, contract provisions should be carefully tailored to the situation at hand. Thus, for example, if a PPP is intended to reduce waiting time on the waiting lists, then the contract should address not only the aspects mentioned above, but also specifically reference the objectives and set forth transparent waiting list management procedures and criteria.

Appropriate monitoring and managing of quality and performance are particularly important in healthcare PPPs and PPC. Monitoring and evaluation mechanisms, performance indicators, targets and outputs, as well as any performance bonuses should be discussed upfront, built into contracts, and refined at the pilot stage if possible. It is critical that the public partner has sufficient capacity for oversight and for making timely adjustments as needed. External oversight methods can also be utilized (e.g., licenses to practice or to operate a facility or a specific health technology, and accreditation according to agreed quality standards). In ensuring continuity in the monitoring and managing of quality and performance, it is helpful that a single task force, advisory board, and/or project management office is established for the duration of the project.
PART IV – HELPING ENSURE SUCCESS

PPPs and PPC can be beneficial for the health sector when they are well justified, prepared, implemented, and monitored, including being adjusted in an appropriate and timely manner. The figure below presents some of the key success factors to consider in planning a PPP or PPC.

### Preparation
- Ensure adequate legal and fiscal capability (e.g., capacity, framework, regulations)
- Evaluate situation in a fact-based manner to ensure utility of the proposed project vs. alternatives (e.g., public comparator model)
- Establish a dedicated task force, advisory board, and/or a project management office close to the decision-making authority (e.g., Ministry of Health, Ministry of Finance)
- Identify and review options against a clear set of pre-defined project objectives and quality standards
- Assess risks and develop risk mitigation plan
- Prepare a transparent and effective bidding process
- Set up an effective monitoring and evaluation framework

### Implementation
- Select partner(s)
- Develop contract and address likely risks
- Review judicial and audit capacity and adjust contract accordingly (e.g., procedural reliability and length, arbitration clause, auditing body)
- Develop detailed quality and performance standards and targets
- Ensure ongoing cooperation and communication between all the key stakeholders throughout the project
- Implement change management and communication strategy
- Pilot the project in stages whenever possible to allow for needed and timely adjustments

### Monitoring and adjustment
- Ensure ongoing monitoring according to the pre-agreed criteria and targets
  - Internal (conducted by the public partner through on-site monitoring and reporting)
  - External (conducted by an outside authority, e.g., certification authorities, audits)
- Adjust any element of the project, including monitoring component as needed based on the lessons learned and in discussion with all the partners and key stakeholders
- Build any lessons learned into the body of public-private collaboration/partnership expertise (e.g., government’s center of excellence)

PPPs or PPC should include well-defined objectives, clear division of roles and responsibilities, risk allocation, and other transaction elements (e.g., which asset changes hands under what provisions), to be agreed upon between the partners in advance. In that regard, the quality of contracts between the public and private partners and, in some cases, between partners and third parties (e.g., what are the roles and responsibilities of the partners, what are the arrangements for provision of services in question in short- and long-term) is critical to the success of a PPP or PPC.
The following figure sets forth some examples of important contract elements:

**Sample key contract elements**

- Definition of project stages
- Construction
- Operation
- Transfer
- Time schedule, milestones
- Specification of services
- Level
- Quality
- Compensation
- Fixed compensation
- Variable compensation (e.g., costs, management fee, performance bonus, user fee)
- Financing (equity, debt capital, guarantees)
- Adjustment mechanisms (service, compensation)
- Triggers
- Automatic adjustments
- Statutes for negotiations
- Statutes for regular information and audits
- Organization
- Committee/advisory board
- Project management office
- Rights and duties
- Meetings frequency
- Intellectual property rights
- Duration and termination
- Exit strategies
- Triggers
- Compensation
- Severability clause
- Applicable law and claims settlement
- Impartial expertise
- Jurisdiction
- Arbitration

Most importantly, all parties to a PPP or PPC should bring adequate expertise and experience to the contracting process. Contracts and all other arrangements should be based on fair and transparent discussions, cover all the aspects and stages of the project, fully assess costs and benefits, including the appropriateness of the use of PPP or PPC, allocate risks and rewards, and allow for ongoing monitoring of quality and performance, as well as the flexibility for ongoing adjustments as appropriate.

In practice, the options for utilizing PPPs or PPC significantly differ between contracting for hospital facilities and services, and contracting for auxiliary services (e.g., catering). The former tend to be far more complex than the latter and involve a distinct set of actors (e.g., key ministries or payors for hospital facilities and services vs. hospital management for auxiliary services). As such, contracting for hospital facilities and services often presents greater challenges for the public partners than other forms of PPPs and PPC, and hence, some of the key considerations and options for private participation in hospital facilities and services are highlighted below.

PPPs and PPCs for private participation in hospitals take many different forms depending on the identified needs and objectives, the government’s health sector policy priorities and capacity to control the access and quality of care, the availability of and the need for funding or other resources, as well as other key elements in the public domain (e.g., regulation, public consensus). Once the appropriateness of private participation has been determined in a fact-based manner, the public partner can select the best way to proceed from a broad set of approaches (e.g., pilot vs. broader program, profit vs. non-profit, specific service vs. bundled services, mix of patients vs. only private or only public patients) and a wide menu of options available for such a partnership or collaboration.
The table below illustrates some examples of the options available (6).

<table>
<thead>
<tr>
<th>Illustrative option</th>
<th>Private sector responsibility</th>
<th>Public sector responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Collocation of private facility within or adjacent to a public hospital</td>
<td>• Operates private facility/wing including accommodation and/or clinical services</td>
<td>• Manages public hospital and contracts with the private facility for shared costs, staff, and equipment</td>
</tr>
<tr>
<td>• Outsourcing of clinical support services</td>
<td>• Provides clinical support services (e.g., radiology, laboratory)</td>
<td>• Manages hospital and provides clinical services</td>
</tr>
<tr>
<td>• Outsourcing core and specialized clinical services</td>
<td>• Provides core or specialized clinical services (e.g., radiology, laboratory)</td>
<td>• Manages hospital and provides other clinical services</td>
</tr>
<tr>
<td>• Private management of a public hospital</td>
<td>• Manages public hospital under contract with government or public insurance fund, provides clinical and non-clinical services; may be responsible for employing staff or new capital investments</td>
<td>• Contracts with private partner for provision of public hospital service, pays for services provided, and monitors and regulates services and contract compliance</td>
</tr>
<tr>
<td>• Private financing, construction, and leaseback of a new hospital</td>
<td>• Finances, constructs, and owns new public hospital, and leases it back to the government</td>
<td>• Manages hospital and makes phased lease payments</td>
</tr>
<tr>
<td>• Private financing, construction, and operation of a new hospital</td>
<td>• Finances, constructs, and operates a new public hospital, and provides hospital services</td>
<td>• Reimburses operator for capital costs and recurrent costs for services provided</td>
</tr>
<tr>
<td>• Sale of public hospital as a going concern</td>
<td>• Purchases facility and continues to operate it as a public hospital under contract</td>
<td>• Pays operator for hospital services, and monitors and regulates services and contract compliance</td>
</tr>
<tr>
<td>• Sale of public hospital for alternative use</td>
<td>• Purchases facility and converts it for alternative use as per contract</td>
<td>• Monitors conversion to ensure contract compliance</td>
</tr>
</tbody>
</table>

Once determined, these selections should be built into what is typically a complex and challenging contract agreement that needs to be able to account for a set of probable and desired outcomes and build in the appropriate incentives to achieve them.
PART V – REVIEW OF RECENT EUROPEAN EXPERIENCES

The increasing number of PPPs and PPC in the health sector is helping to build a considerable base of international experiences to draw upon for future projects. However, accurate data are often hard to come by as contracts are typically confidential and time is required before a project can be fairly evaluated. Nine brief case studies are included to provide an overview of some of the relevant recent experiences in Europe and provide further illustration of the richness of PPPs and PPC in current international practice (7):

- Privatization of outpatient dialysis services in Romania;
- Hospital catering management contract in Germany;
- Shared regional hospital sterilization service in Austria;
- Development of the national e-health portal in Denmark;
- Health telematics partnership bIT4 health in Germany;
- Holistic care hospital development, management, and service partnership in Austria;
- Privatization of a major hospital in Sweden through a PPP;
- Transformation of a large public hospital in Germany through a PPP; and
- Comprehensive PPPs program in Portugal.

While each opportunity should be evaluated and addressed based on the specific situation at hand, it is very helpful to draw from international experiences for examples and lessons that can help ensure the success of a planned PPP or PPC. It should be noted that the case studies provide specific examples, and while some common lessons may be applicable to all cases, specific country experiences may not be transferable to another country due to differences in health systems, capacity and expertise levels, judicial systems, overall development levels, or other relevant factors. Nonetheless, some common lessons can be distilled from the selection of case studies that follow:

- Successful PPPs and PPC require clear rules and dedicated experts on both 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;
• 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 include 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.
Case Study 1

PRIVATEIZATION OF OUTPATIENT DIALYSIS SERVICES, ROMANIA

Overview:
- Increasing demand for dialysis services key driver to find new ways of financing and upgrading quality of services
- Privatization through a public tender of eight separate dialysis centers providing outpatient services for hemodialysis and peritoneal dialysis patients in eight different public hospitals
- Structured as contract for dialysis services between the government and the private service providers, with upgrade and expansion of dialysis centers as part of service provision

Key Design/Process Features:
- Service contracts, including space leases, awarded to the private operators through a tendering process for an initial four-year period
- Operators assumed full responsibility for renewing all equipment within 90 days; renovating and refurbishing facilities within 18 months; maintaining and operating the equipment; employing, training and managing transferred staff; and providing all services
- Ministry of Health set prices based on regional price comparison study—flat fee per hemodialysis treatment (EUR 110) and annual fee per peritoneal patient (EUR 11,000)
- Quality of centers and services carefully monitored and controlled:
  - Ministry of Health ensures quality via compulsory monthly operator reporting and regular inspections of the facilities, as well as through the independent nephrology commission
  - Contracts provide for comprehensive service and quality standards for patient care, use of highly skilled medical staff, continued training, and certification standards for all staff
  - New dialysis norms and standards, in line with EU guidelines, introduced for facilities, equipment, operations, and dialysis treatment, and built into the contracts
  - Three-year contract extensions offered to operators willing to expand by building new centers, to help the government increase capacity, reduce waiting lists and improve geographical access

Impact:
Improved patient services at lower costs to the national health system:
- NHIF did not finance the modernization from public funds (cumulative investments of the private partners EUR 12.4 Million to date, additional investments estimated at EUR 5-10 Million)
- Significant average savings expected in comparison with the public hospitals; NHIF annual savings estimated at EUR 4 Million
- Quality of services and patient satisfaction increased at lower cost, due to new standards built into contracts, improved equipment and facilities, as well as more efficient structure and organization in the facilities managed by the private partners
Catering at the Charité Clinic, Germany

Overview:
- Pressing need for modernization of catering at the Charité Clinic to meet the increasing quality demands and the latest EU guidelines on hygiene and Hazard Analysis Critical Control Point (HACCP):
  - No major investments since the 1970s
  - Clinic could not allocate the necessary investment funds
- Short-term goals: kitchen facilities modernization, strengthening of the in-house financial situation, knowledge transfer
- Long-term goals: improving the competitiveness within the care market, increasing and sustaining high quality and hygiene standards, enabling investment amortization through fee per patient, and reduction of food production costs

Key Design/Process Features:
- Profit-oriented management contract awarded through a public tender in 2003, with the possibility of extending into a long-term public-private partnership at the end of the initial five-year contract
- The Charité tendered the catering services and the private partner Zehnacker Catering is contractually obliged to perform the services
- Substantial contract negotiations enabled agreement on the total investment, implementation timetable and quality standards
- Initial investment of EUR 400,000 (mainly for the modernization of facilities) secured by the private partner and recharged via a daily fee to the Charité over a period of time
- The following features helped ensure efficiency and quality:
  - The Charité’s control department monitors efficiency, treating each catering outlet as a separate profit-and-loss center
  - Quality systems put in place to meet the increasing demands on quality and to implement the latest EU hygiene and HACCP guidelines, and are monitored via ISO certification

Impact:
Financial and quality benefits include:
- At the total contract value of EUR 6 Million, savings to the Charité at EUR 800,000 over five years, 50% of which was the initial investment and the remaining 50% represented the actual savings
- High quality food delivery enabled by purchasing new food delivery carts and implementing an improved menu cycle, monitored through the prescribed food temperature at the point of service, right-on-time delivery, and choice
- Catering unit successfully ISO 9001:2000 certified within the first 18 months
- Upgrading of the facilities and equipment significantly improved the working conditions and resulted in a more efficient workforce (including 7% reduction) and noticeable decline in absenteeism
Case Study 3

**Shared Regional Hospital Sterilization Service, Austria**

**Overview:**
Profit-oriented service contract for the sterilization support service for three hospitals in Vorarlberg, Austria (Landeskrankehaus Feldkirch, Hohenems and Bludenz), aiming to:

- Improve sterilization services
- Achieve savings through a more efficient structure and organization
- Allow for cost-effective and competitive pricing

**Key Design/Process Features:**
- Partner selected in accordance with the EU two-level tender model.
- New company MPAV founded in partnership between the public partner KHBG (51% share) and the private partner SteriLog Austria (49% share) responsible for sterilization of the medical equipment for the three regional hospitals.
- Instead of modernizing the three existing hospital sterilization units, a new location was equipped to better meet the objectives of quality, safety, and future fiscal sustainability.
- Year-long preparations included planning, in-depth reorganization of the existing units, installation of the new IT system, equipment optimization, staff training, and contract preparation.
- Construction of the new building expected to be completed by 2007, and the three hospitals expected to bring in their equipment after careful validation of the workflows and ISO certification.
- Service expansion to other hospitals planned in the next phase.

**Impact:**
Expected improvements include:
- KHBG did not have to fund the modernization of the sterilization units in its hospitals (cumulated investments of the private partner are EUR 5.3 Million).
- Estimated cost reduction of EUR 2 Million realized through building a shared service vs. reconstructing three separate facilities.
- Agreed payment per sterilization box fixed at production costs.
- Additional external business volume expected to further reduce the production costs per box by 27% within the next eight years, a savings estimated at EUR 1 Million per year.
- Quality and efficiency gains include:
  - Economies of scale generated by one-location synergies, including better specialization and quality in a shared unit, ongoing technical and organizational development, economies of scale in maintenance/repairs and energy costs.
  - Standardized quality, including lower quality insurance investments required.
Case Study 4

NATIONAL E-HEALTH PORTAL, DENMARK

Overview:
Public-private partnership to develop a national e-Health portal to:
- Enable web access to Electronic Patient Records (EPR) via central document indices to data kept in the individual hospitals and General Practitioners’ (GP) offices
- Provide a portal for electronic communication between citizens and healthcare professionals (e.g., e-referrals, e-prescription)
- Allow patients, their families, and healthcare professionals access to up-to-date information

Key Design/Process Features:
Large-scale project launched by key health system stakeholders:
- Profit-oriented IT contract to create a purpose-developed national portal for effective and efficient information exchange and to integrate regional healthcare information systems
- Non-commercial portal online since December 2003, and under continuous development with high standards for visibility, utility, access, security, and service

Impact
Increased system integration and reduction in related transaction costs:
- EUR 2.30 average savings per medical/insurance communication
- 66% reduction in hospitals’ telephone calls
- 50 minutes per day saved in medical practices
- 100% of prescriptions sent electronically to pharmacies
- 97% of lab results electronically transferred
- 84% of discharge letters electronically transferred to GPs

Specific benefits by phase include:

<table>
<thead>
<tr>
<th>Phase 1 (9 months): Information Portal</th>
<th>Phase 2 (15 months): Collaboration Portal</th>
<th>Phase 3 (24 months): Application Portal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Features</td>
<td>Features</td>
<td>Features</td>
</tr>
<tr>
<td>Infrastructure portal, CMS, Search</td>
<td>eCard security, eBooking, Prescription Server, LabResult</td>
<td>EPR, Pathways, Disease management, Multi-vendor environment</td>
</tr>
<tr>
<td>National Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficient communications</td>
<td>Reduced test duplication</td>
<td>Reduced need for local specialists</td>
</tr>
<tr>
<td>Better distribution of guidelines</td>
<td>Improved quality</td>
<td>Better ability to monitor and optimize aspects of care</td>
</tr>
<tr>
<td></td>
<td>Information entered once</td>
<td>Reduced possibility of mistreatment</td>
</tr>
<tr>
<td>Practitioner Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better access to guidelines</td>
<td>Access to patient information</td>
<td>Ability to access full medical history of patients</td>
</tr>
<tr>
<td>Ability to evaluate wait times</td>
<td>Better communications</td>
<td>Anywhere access</td>
</tr>
<tr>
<td>Better patient service</td>
<td>Improved quality and service</td>
<td>Pathway support</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to guidelines</td>
<td>24/7 access anywhere to the health system and own data</td>
<td>Increased influence on own treatment</td>
</tr>
<tr>
<td>Ability to evaluate wait times</td>
<td></td>
<td>Shared care</td>
</tr>
<tr>
<td>Better service and care</td>
<td></td>
<td>Pathway support</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Case Study 5**

**Better IT for Better Health, Germany**

**Overview:**
The “bIT4health” (better IT for better health) is a partnership developed to enable nationwide introduction of health telematics features with the objectives of increasing quality and efficiency in the healthcare sector, and enabling patient initiative and responsibility, including:

- Electronic patient card (spanning 80 million insured, 270,000 providers, 77,000 dentists, 22,000 pharmacies, more than 2,000 hospitals and over 300 payors)
- Electronic prescription system and other health telematics features

**Key Design/Process Features:**
- Initiative led by the German Ministry of Health and Social Affairs which established the IBM-led private partners’ consortium in order to develop a health telematics infrastructure for communications within the healthcare system
- The 2004 Health Modernization Law enabled the five-year implementation process
- Long-term profit-oriented IT contracting-out relationship to develop and implement the planned architecture and features, starting with the electronic health card and followed by reference architecture for further health telematics applications (e.g., e-prescription, e-referral, electronic patient record)

**Impact:**
Benefits expected to be nationwide and accrue as the planned telematics features are implemented, leading to cumulative improvements in quality and efficiency, including:

- Electronic patient card expected to allow for better and more efficient sharing and control of information, including better quality of care (e.g., avoidance of mistakes, ensuring correct medications), savings in the paper and imaging administration, as well as better processing and diminished card fraud/abuse
- e-Prescription component expected to accrue annual benefits of EUR 516 Million, after the investment costs of EUR 1,190 Million and operating costs of EUR 134 Million in the first year

**Fast facts:**
- **Partnership to establish a nationwide health telematics framework, and to enable a nationwide introduction of the electronic patient card, electronic prescription system, and other health telematics features to be introduced in the future**
- **IT contract**
- **Public partner:** Ministry of Health and Social Affairs, Germany
- **Private partners:** Consortium of private partners led by IBM
HOLISTIC CARE CENTER
WALDVIERTEL, AUSTRIA

Overview:
An emergency hospital in Lower Austria on the verge of being closed down was transformed through a public-private partnership into a modern Holistic (Psychosomatic) Care Center Waldviertel (PSCW):

- 100-bed PSCW opened on July 1, 2006, after a thorough refurbishment, and will provide holistic care to the local and regional patients
- Objectives of the partnership were to renew a medical facility and introduce a new model of care in Austria building on international experiences

Key Design/Process Features:
- License including project development, planning, implementation, overall financing, and general management and service provision, granted to the PSCW project company founded for the project in accordance with the Austrian hospital plan and care guidelines
- PSCW operated and managed by the project company composed of KAV with 51% share, ROMED with 39% share, and VAMED with 10% share;
- Legal entity of the PSCW is KAV, which is also responsible for the infrastructure; ROMED is responsible for the PSCW operation; and VAMED for planning, building and, optionally, facility management
- Quality control, including monitoring of the medical and economic performance, conducted by inter-university advisory board responsible for developing and monitoring the holistic care quality standards

Impact:
- Investment into a new type of high quality patient care
- Reduced public investment required for the new facility, at 65% of the total estimated investment of EUR 14.8 Million
- Leveraging of the private sector’s expertise and financing
- Risk distribution and labor division between the partners
- Further savings expected to accrue through benefits of holistic care and efficient management by experienced private partners (e.g., costs of a daily hospital rate in holistic care of approximately EUR 200-300 expected to be significantly lower than those in the conventional hospital care of approximately EUR 440, due to the reduced overall length of treatment through holistic care)
Case Study 7

PRIVATIZATION OF ST. GORAN’S HOSPITAL, SWEDEN

Overview:
- Stockholm County Council transformed a major public hospital in Stockholm, St. Goran’s, into a private hospital in two stages:
  - Corporatization (1994-1998): St. Goran’s transformed into a non-profit public stock company and streamlined (i.e., simplified case mix, several specialty care units and clinical labs moved to other hospitals or sold to private operators)
  - Privatization (1999): St. Goran’s sold to Capio under renewable contract and transformed into a for-profit private stock company
- The first privately owned hospital in Sweden, with 240 beds, 1,400 employees, and 200,000 outpatients in 2004

Key Design/Process Features:
- Privatization driven by regional plan to increase the number of private providers in the system to enable competition and more efficient healthcare units; accompanied by changes in the administration to enable management of the new private entities (e.g., better defined responsibilities, external audit requirements)
- Revolving six-year contract agreed between SCC and Capio, requiring the hospital to provide services to all patients under the same conditions and performance criteria as other hospitals
- Contract enables SCC to prevent Capio from selling the hospital
- SCC remains the major payor through a performance-based DRG financing system with adjustable caps on volume and prices
- According to the contract, facilities and equipment are leased
- Contract renewed for the period 2005-2012; key changes include:
  - Services initially contracted at 2004 volumes and prices, with annual adjustments
  - St. Goran’s to cease treating privately financed patients, who will be treated in Capio Artro Clinic under a separate contract
  - SCC entitled to terminate contract as of year-end 2009, and repurchase the hospital for SEK 275 Million

Impact:
- Privatization initially controversial; today seen as a solid working model of a PPP benefiting from the shift to active, growth-oriented entrepreneurial management
- St. Goran’s continues to be ranked amongst the best-in-class (e.g., financial results, quality, productivity), with no changes in access
- Cost reductions achieved through more streamlined operations and management, such as the speed of throughput, case mix, hospital units as profit-and-loss centers, European benchmark-informed management decisions, economies of scale
- Further efficiencies achieved in service delivery and costs (e.g., shorter waiting times, work schedules changed to lower staff costs while maintaining employee contracts, capacity utilization)
Case Study 8

BUILD, OWN, AND OPERATE PPP AT BERLIN-BUCH HOSPITAL, GERMANY

Overview:
- In the late 1990s the State of Berlin was unable to finance the needed replacement of the Berlin-Buch hospital, an aging 1,100-bed facility faced with increasing double-digit losses and decreasing patient volumes
- In 2001, Helios-Kliniken, Germany’s second largest private hospital operator, won a tender to operate and replace the existing hospital

Key Design/Process Features:
- Under the concession contract, Helios assumed the hospital license and assets and liabilities of the existing facilities (24 clinics and six institutes, with five sites, 167 buildings and 1,100 beds)
- Contract for the construction of the new 1,000 bed facility allowed for the existing facilities to be operated on a lease-free basis through 2008, creating an incentive for Helios to complete the replacement building on time and provided a stable revenue level for a specified time as long as patient volumes were maintained
- The hospital remains a teaching and academic institution, and the contract provides for the research and education activities to be state-funded and under management of the Charité University, while the acute care and costs are managed by Helios
- Staff contracts were transferred to the new operator, with freeze on any staff reductions until the end of 2005
- Quality of services is retained through governmental oversight and public Annual Medical Reports introduced by Helios to transparently track key performance benchmarks, including overview of all inpatient cases overall and by DRG

Impact:
- EUR 215 Million capital investment privately financed in full without the need for public funds (initially estimated at EUR 350 Million)
- Patient volumes increased at roughly the same level of funding
- Operational efficiencies led to decrease of personnel costs by over 10% while retaining fixed staffing levels
- Large scale investments in new technologies (e.g., cardio-MRI, ultrasound and navigation systems for orthopedics and neurosurgery) and procedures (e.g., minimally invasive surgery, stem-cell transplantation) of EUR 10 Million to date, with an additional EUR 29 Million planned, improved patient care without increasing overall operating expenditures or DRG reimbursements
- The implementation of the DRG system within the organization allows the hospital to benchmark medical outcomes of all Helios hospitals by departments; Annual Medical Reports facilitate regular peer and public oversight for further quality improvements

Concession contract for existing assets, construction and maintenance contract for the new facility, management and services contract

Public partners:
State of Berlin, The Charité University

Private partner:
Helios-Kliniken
COMPREHENSIVE PPP PROGRAM, PORTUGAL

Overview:
- Comprehensive PPP program involving construction, replacement/refurbishment and private management of over ten hospitals and several specialized centers in two waves
- Objectives include rapid (re)development of infrastructure, more efficient provision of public health services, improved patient care quality, and using the public-private partnership model if successful as a benchmark and driver for change for the public sector

Key Design/Process Features:
- In 2001 the Portuguese government created a PPP taskforce for the health sector—Parcerias.Saúde (Partnerships.Health)
- In 2002 Parcerias.Saúde received mandate to create the legal framework to enable PPPs and launch the first PPP wave, consisting of four hospital PPPs cumulatively valued at EUR 3 Billion including delivery of clinical services, an NHS contact center and a rehabilitation center valued at EUR 40 Million each
- PPP model, strategic elements and technical specifications developed in close cooperation with the Ministry of Health
- Parpública SA, state entity acting as a PPP advisor to the Ministry of Finance, conducts an extensive review of the PPP proposals
- Public partner continually monitors and adjusts the program
- Hospitals the most significant part of the program, with two types of contracts to be awarded in hospital tenders: construction and maintenance, and health care services provision contracts
- Efficiency and quality of the program and its individual components are carefully monitored:
  - Purpose-developed public comparator model assesses validity of a PPP option in a given case
  - PPPs have to meet higher performance and quality standards than public hospitals
- Recent changes to the institutional framework—especially a more rigorous appraisal of PPPs, their long-term budgetary implications, and the contractual arrangements supporting them—aim at further ensuring efficiency and quality in the program

Impact:
- Too early to judge project impact (first contract awarded in 2006)
- Initial experiences (e.g., first hospital tender abandoned) resulted in process changes to improve effectiveness and efficiency of PPP projects, such as more rigorous justification rationale and appraisal of proposed projects and their budgetary implications, improved bidding process and management of contracts
- Portuguese experience highlights the importance of a well developed strategy and implementation plan, with sufficient lead time to make adjustments critical for ensuring success
REFERENCES AND NOTES

(1) The working definition of PPPs and PPC used in this paper is based on the broadly used definitions within the World Bank Group and in international practice. The definitions and typology used are included in the brief to help complement the overview of the topic, and are not intended to be definitive or prescriptive. Similarly, in terms of the benefits, this field is a growing one with cases pointing to both positive and negative outcomes. Before embarking on a PPP or PPC, it is critical to carefully evaluate whether such an arrangement would bring the value commensurate with the investment and whether private participation would be helpful in the case at hand.

(2) It is important to note that the labels commonly used to describe PPP and PPC arrangements are not always mutually exclusive, and there may be overlap between different types.

This typology is based on the following sources:


(3) Bultman, J., Kerschbaumer, K., Public Private Sector Participation: Assuring and Promoting quality of health care services, Presentation at the World Bank’s Public-Private Partnerships and Collaboration in Health Workshop held in coordination with the Ministry of Health of Lithuania in Vilnius, Lithuania, June 8-9, 2006 (weblink: http://www.sam.lt/sam/naujienos/?idi=3509)

(4) Laursen, T., Managing Fiscal Risks in PPPs, Presentation at the World Bank’s Public-Private Partnerships and Collaboration in Health Workshop held in coordination with the Ministry of Health of Lithuania, in Vilnius, Lithuania, June 8-9, 2006 (weblink: http://www.sam.lt/sam/naujienos/?idi=3509)


(7) Key materials used in the preparation of case studies:

**Case studies 1-6:**


**Case study 7:**


**Press search**

**Case study 8:**


**Case study 9:**

**Interview with Mr. Jorge Abreu Simoes**, President, Parcerias.Saude, 5/2006


SELECTED FURTHER READING


**Delivering the PPP Promise: A Review of PPP Issues and Activity**, PriceWaterhouseCoopers, 2005


**Franchising in Health: Engaging Models, Experiences, and Challenges in Primary Care**, The World Bank Group’s Private Sector and Infrastructure Network, 2003


Laursen, T., **Managing Fiscal Risks in PPPs**, Presentation at the World Bank’s Public-Private Partnerships and Collaboration in Health Workshop held in coordination with the Ministry of Health of Lithuania, in Vilnius, Lithuania, June 8-9, 2006 (weblink: http://www.sam.lt/sam/naujienos/?idi=3509)


Marek, T., Yamamoto, C., **Policy and Regulatory Options for Private Participation**, The World Bank’s Private Sector and Infrastructure Network, Note 264, 2003


Schneider, P.H., **Public Private Collaboration in Health: Why and what to expect?**, Presentation at the World Bank’s Public-Private Partnerships and Collaboration in Health Workshop held in coordination with the Ministry of Health of Lithuania, in Vilnius, Lithuania, June 8-9, 2006 (weblink: http://www.sam.lt/sam/naujienos/?idi=3509)


**The Role of the Private Sector and Privatization in European Health Systems**, World Health Organization, 2002

Public-Private Partnerships and Collaboration in the Health Sector

Overview Including Review of Recent European Experiences

Irina A. Nikolic and Harald Malkisch

October 2006