EXPERT PANEL ON EFFECTIVE WAYS OF INVESTING IN HEALTH

(EXPH)

Health and Economic Analysis for an Evaluation of the Public-Private Partnerships in Health Care Delivery across Europe

The EXPH adopted this opinion at its 4th plenary of 27 February 2014

About the EXpert Panel on effective ways of investing in Health (EXPH)

Sound and timely scientific advice is an essential requirement for the Commission to pursue modern, responsive and sustainable health systems. To this end, the Commission has set up a multidisciplinary and independent Expert Panel which provides advice on effective ways of investing in health (Commission Decision 2012/C 198/06).

The core element of the Expert Panel's mission is to provide the Commission with sound and independent advice in the form of opinions in response to questions (mandates) submitted by the Commission on matters related to health care modernisation, responsiveness, and sustainability. The advice does not bind the Commission.

The areas of competence of the Expert Panel include, and are not limited to, primary care, hospital care, pharmaceuticals, research and development, prevention and promotion, links with the social protection sector, cross-border issues, system financing, information systems and patient registers, health inequalities, etc.

Expert Panel members

Pedro Barros, Margaret Barry, Helmut Brand, Werner Brouwer, Jan De Maeseneer (Chair), Bengt Jönsson (Vice-Chair), Fernando Lamata, Lasse Lehtonen, Dorjan Marušič, Martin McKee, Walter Ricciardi, Sarah Thomson

Contact:

European Commission
DG Health & Consumers
Directorate D: Health Products and Systems
Unit D3 – eHealth and Health Technology Assessment
Office: B232 B-1049 Brussels

SANCO-EXPERT-PANEL@ec.europa.eu

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Members of the Working Group are acknowledged for their valuable contribution to this opinion.

The members of the Working Group are:

Expert Panel members

Prof. Pedro Barros	
Prof. Bengt Jönsson	Chair
Dr. Fernando Lamata	
Prof. Lasse Lehtonen	Rapporteur
Prof. Martin McKee	
Prof. Walter Ricciardi	

External experts

Prof. Christine Huttin
Dr. Gabriela Scintee
Dr. Matthias Wismar

The declarations of the Working Group members are available at:
http://ec.europa.eu/health/expert_panel/experts/working_groups/index_en.htm

ABSTRACT

Public-Private Partnership (PPP) refers to forms of cooperation between public authorities and the world of business, which aim to ensure the funding, construction, renovation, management or maintenance of an infrastructure or the provision of a service. A main characteristic of PPP is the relatively long duration of the relationship.

In October 2011 DG SANCO launched through EAHC the tender for conducting the Health and Economic Analysis for an Evaluation of the Public-Private Partnership (PPP) in Health Care Delivery across EU. The report based on 15 case studies from different countries was created by ECORYS in August 2013.

The EXpert Panel on effective ways of investing in health (EXPH) was requested to answer several specific questions concerning the report by DG SANCO. The evaluation of the report by the Expert Panel and the answers to the questions of DG SANCO are presented in the document.

Keywords : PPP, public-private partnership, assessment, EXPH, Expert Panel on effective ways of investing in Health, scientific opinion

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EXECUTIVE SUMMARY

In October 2011 the developments at both policy and sector level across EU member states led the Health and Consumers Directorate-General of the European Commission (DG SANCO) to launch through the European Agency for Health and Consumers (EAHC) a tender for conducting the Health and Economic Analysis for an Evaluation of the Public-Private Partnership (PPP) in Health Care Delivery across EU. The consultants (ECORYS) provided their report based on 15 case studies from different countries in August 2013 (EAHC 2013).

The Expert Panel on effective ways of investing in Health (Expert Panel) was requested to answer the following specific questions by DG SANCO.

(1) *"Whether the choice of Member States and case studies selected by the contractor are representative of the EU situation of PPP in health care delivery".*

(2) *"Whether the methodology utilised by the contractor is appropriate or whether there remain important aspects of the analysis which are not properly covered".*

(3*) "Whether the conclusions and the recommendations reached by the contractor are sound, evidence based, consistent and comprehensive".*

(4) *"Identify what additional evidence is necessary in order to best develop EU policy for the proper use of PPP in cost-effective and sustainable health systems. In doing so, the Expert Panel should provide guidance on the steps which need to be taken and the methodologies and approaches which are to be followed in order to gather the needed additional evidence".*

The report by ECORYS indicates that public disclosure of data and analyses behind PPP investments is very poor, inconsistent and not standardized. Therefore, many conclusions of the report are based more on assumptions than actual data. The Expert Panel did not find scientific evidence that PPPs are cost-effective compared with traditional forms of public financed and managed provision of health care.

The Expert Panel agrees with the conclusion of the report that the value for money (VfM) or cost-effectiveness of a specific way of health service provision can only be calculated for a defined patient population in relation to a defined alternative. Aside from the project-level VfM calculation, there should be macro-prudential review such that the totality of a government's PPP obligations, including contingent liabilities and ripple effects through public lenders, are visible.

Full-service PPPs (infrastructure and clinical) should be subject to the same rules on patient access and tariff and inadmissibility of out of pocket payments as hospitals controlled by other public, private or social sectors sponsors, so that the patient experience should not differ significantly. Accommodation-only (PFI) should be used only in special cases: when the public sector needs to construct infrastructure but has no money for investment in the current budget yet is able to make annual payments in the future.

The Expert Panel emphasizes that the evidence shows that ownership is not a major determinant of efficiency in service provision. An appropriate structure of incentives for providers, including the financing mechanisms, together with competent management and follow up are more important determinants of outcome and cost-effectiveness.

PPP in health have in most cases been a response to a specific problem or policy situation. A common shortfall of all projects is that no formal evaluation of the outcome has been planned into the project. With an increasing number of alternatives developed for health care delivery, PPP being one of them, the demand for proper evaluations has been identified as a key factor for the development of evidence based health care, and other investments in health. The new methods are a focus on outcome, a comparison of relevant alternatives, and using data from clinical practice rather than clinical experiments for assessing the outcome and cost-effectiveness. This is highly relevant for PPP.

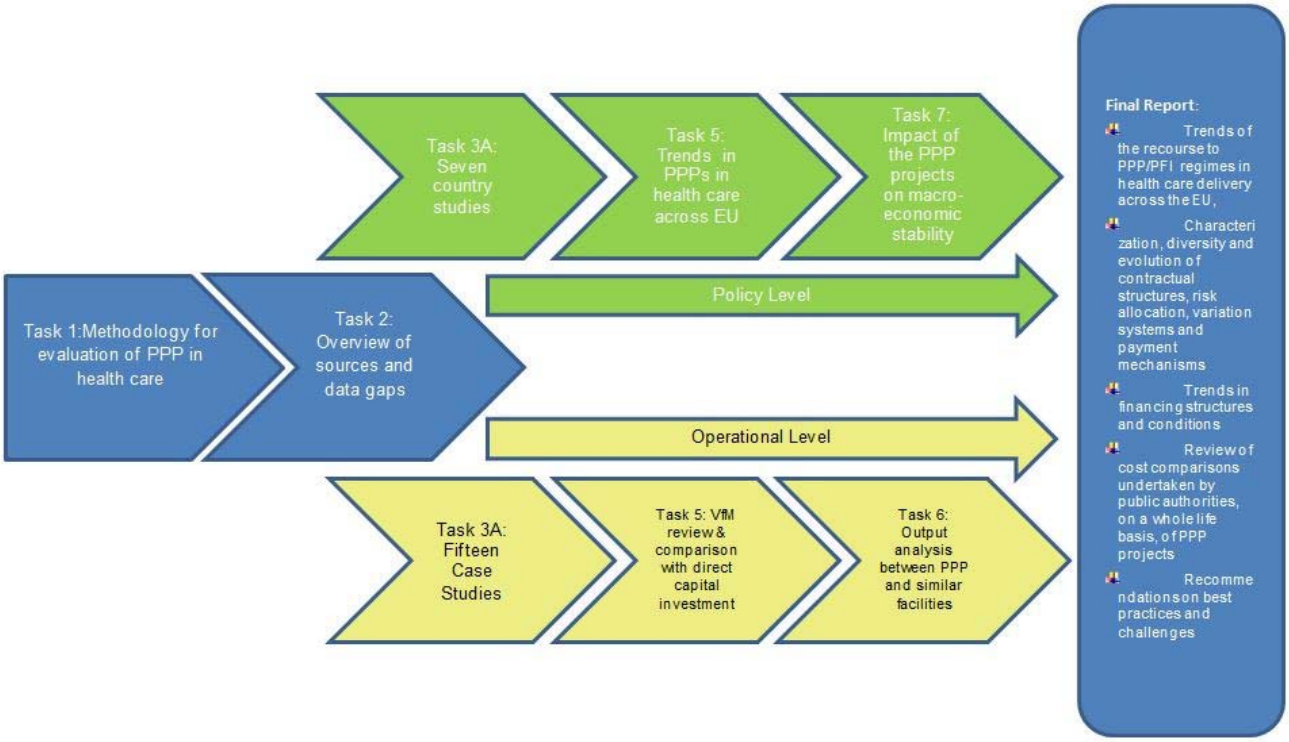
In relation to the recommendation on the use of Structural Funds, the advice of the Expert Panel is that only after having obtained evidence of the comparative advantages of current PPP-long term concessions would the use of Structural Funds for this kind of investment be justified.

Evaluation of PPPs can be undertaken using data from observational studies. Since health care increasingly focuses on patient outcome and cost-effectiveness, PPPs including health care delivery must be evaluated using the data from clinical practice. The methods for such studies, and the data needs, are very demanding and there are a number of complications to consider. However, principles and methods for these studies have previously been described and data are increasingly available from electronic medical records and other patient registries.

1. BACKGROUND

1.1. Evaluation of the Public-Private Partnership in Health Care Delivery across EU

In October 2011 developments at both policy and sector level across EU Member States led DG SANCO to launch through EAHC the tender for conducting the Health and Economic Analysis for an Evaluation of the Public-Private Partnership (PPP) in Health Care Delivery across EU. The actual study was carried out by ECORYS. It delivered the final report in August 2013. The overall process for the preparation of the report is presented in the picture below (EAHC 2013)



Public-Private Partnership refers to forms of cooperation between public authorities and the world of business, which aim to ensure the funding, construction, renovation, management or maintenance of an infrastructure or the provision of a service (EU Green Paper on Public-Private Partnership and community law on public contracts and concessions). A main characteristic of PPP is the relatively long duration of the relationship, whatever the role of private funding and whatever the distribution of risks between the public partner and the private partner.

The consultants (ECORYS) propose to amend the European Investment Bank (EIB) definition of PPP. The extended definition highlights the leading role of the state in initiating the PPP as well risk sharing arrangements, and allows the inclusion of a more representative number of cases and more comprehensive recommendations.

A PPP is the provision, (probably) finance, long-term operation and maintenance, of public infrastructure and/or provision of public services by the private sector. A PPP should have been initiated by the public sector – involve a clearly defined project – involve the sharing of risks with the private sector - be based on a contractual relationship which is limited in time – have a clear separation between the public sector and the Borrower.

The later definition was established for the purpose of this study and agreed upon with DG SANCO and EAHC. It includes both *public infrastructure and public services* in the health care sector. *Public* in this definition must refer to payment, and service to clinical (medical) services. The ownership of the infrastructure or the service provider may take different forms; for example for profit and not for profit.

The inclusion of medical service provision in the definition extends the evaluation beyond what is usually included in the definition of PPP, and also opens up the assessment of value for money to more general aspects of health care system analysis; for example the use of bundled payments for services, or pay-for-performance (related to outcome and/or process quality) as mechanisms to improve value for money.

1.2. Different models of PPP in the health sector

Seven types of PPP in the health care sector were defined in the report (EAHC 2013) (see table below). However, the main distinction must be between those that include only infrastructure and intermediary services, and those that include the provision of clinical services.

Table 4.1 Models of PPP in Health Sector in EU Member States

Type	Major features
Type I: Accommodation model	Hospital infrastructure and hard facility management (many PFI).
Type II: Accommodation model	As Type I, but with the SPV owned entirely from the start by the public sector (not covered in this Report; e.g. Hospital Universitario Central de Asturias).
Type III: Extended accommodation model	As Type II, but including IT, soft FM, and supply, installation and maintenance of some or all medical equipment (several PFI).
Type IV Twin-SPV model	Joint venture with separate infrastructure (~PFI) and clinical service companies (e.g. Portuguese "Wave 1" hospitals like Cascais).
Type V: Accommodation and service model	Specialist "monoproduct" hospital infrastructure with FM and medical services (e.g. Coxa, Dialysis Centres and ISTC).
Type VI: Full service provision secondary health care model	General (district hospital) infrastructure with FM and medical services (most of the sites in the German hospital chains).
Type VII: Full service franchise provision tertiary health care model with teaching and R&D	University (teaching/research, "tertiary") hospital infrastructure with FM and medical services (e.g. Berlin Buch/Helios or Giessen & Marburg/Rhön).
Type VII: Full service provision at all levels of care	Integrated hospital and community/primary care (e.g. the Ribera Salud/Alzira companies).

The general objective of the report was ”to present a thorough evaluation of PPP in *health care delivery* across EU”. The report aimed to ”provide a review of existing scientific literature and a detailed value for money analysis”. The report should also include ”an analysis of trends of PPPs on health care delivery, highlighting the numbers of related projects and their amounts.”

The aims of the study from the client (DG SANCO) were presented in the following way:

The aims of this study, which falls under the scope of the Framework Contract N° EAHC/2010/Health/01/Lot 2: Health and Economics, as clearly outlined in the Terms of Reference (ToR), were to provide the Commission services with an evaluation of Public-Private Partnerships in health care delivery across the EU, including:

- A **review of existing scientific literature** on the provision of health infrastructure and health services through partnerships between the public and the private sectors;

- A detailed review of the **value-for-money results** and analyses undertaken by public authorities in procuring and managing PPP contacts in the health sector.

The study is intended to *“add valuable transparency and clarity to public spending and contingent liabilities in health care PPPs, health care performance, and to the important components of public health services and sovereign indebtedness.”*

1.3 PPP in health as procurement of innovation

The Expert Panel notes that the study was designed to analyze PPPs mainly from the traditional perspective i.e. centring on their costs. However, PPP in health have mainly been seen as a response to inefficient capital markets. Restrictions on public borrowing have generated a demand for alternative ways to construct facilities and deliver care.

While the focus is on the role of the private sector to mitigate the problem of financing and debt, the PPP model has also been heralded as a new innovative way of delivering health care. An important example of this is the PPP Nya Solna Karolinska hospital (NSK) in Sweden, which is the biggest health PPP in Europe. The choice of a PPP model for procurement of the new hospital was deliberately made based on the objective of creating a new hospital **to meet future challenges for health care delivery**. The procurement was thus not a standard hospital, but a hospital which should be designed to meet future health care demands. There were ideas about the type of future services to be delivered, but these were not precisely spelt out in the contract. It was hoped that the potential contractors would participate in developing a product that was flexible and optimal to meet future demands.

PPP can thus be seen as a procurement of innovation according to the definition used: “Public procurement of innovation (PPI) is when a public organization places an order (for a product) for the fulfilment of certain functions”. The purpose is not primarily the development of a new product, but to target function to satisfy human needs or solve social problems (improved health). The procurement of a new hospital through a PPP can thus be seen as a procurement of innovation, if it is not on “ordinary or of the shelf” procurement. This is an example of a

"direct PPI" where the procuring organization is also the end-user of the product, using its own demand or need to induce the innovation.

An important dimension is the degree of collaboration and interactive learning in the PPI process. Cooperation is to some extent present in all PPP projects, and it is thus interesting to look at PPP from the perspective of procurement of innovation. From a PPI perspective the focus is not on transfer of financial risk, but **rather on maximizing the probability of success in providing the intended innovation**. Key to this is how the innovation to be delivered is defined and how this definition is translated into functional specifications. The idea is that the procurer should not specify the design, since this prevents creativity and makes parallel procurement difficult. Instead the potential supplier must do the translation of functional requirements into technical specifications.

The theory and concepts developed for studies of public technology procurement and innovation could have provided additional insights for the development of a methodology for evaluation of PPP as a policy instrument in health care. The degree of innovation is an important aspect of most PPP projects, since very rarely can such a project be seen as an "off the shelf" procurement.

2. TERMS OF REFERENCE

The Expert Panel is requested to answer the following specific questions

(1) *"Whether the choice of Member States and case studies selected by the contractor are representative of the EU situation of PPP in health care delivery".*

(2) *"Whether the methodology utilised by the contractor is appropriate or whether there remain important aspects of the analysis which are not properly covered".*

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The results of the study, once assessed and validated by the Expert Panel, could feed into the process of EU policy making, through the works of the European Innovative Partnership on active and healthy aging, as well as within the reflection process on modern, responsive and sustainable health systems.

3. OPINION

3.1. Approach used to develop the opinion

3.1.1. Our interpretation of the request for a scientific opinion

The key policy question is how PPPs can be used to improve cost-effectiveness and sustainability of health care systems. Thus the focus should be on the observations and recommendations in the report about how this can be done, and what the scientific evidence is for these conclusions. The distinction between different types of PPP is therefore important, as well as information about how to optimize the use of PPP; when this instrument should be used, and how it should be used (doing things right in addition to doing the right things).

We try to identify the information needed for making informed decisions, and the availability of data and studies to make evidence based policy conclusions.

3.1.2. Summary of conclusions in the report

The main conclusion is that there is not enough information to evaluate PPP procurement of public health services compared with conventional regimes (value for money is not conclusive).

"There is no convincing methodology for reviewing at national or European level the economic and clinical impacts of accommodation only (PFI) or joint-venture PPPs (projects are too recent, there are too many confounders, programmes are usually small, diverse statistical data collection)" (conclusion n.10, page 66 (EAHC 2013a)).

A potential consequence of the above is that it is not possible to give any **evidence-based** recommendations to Member States about the role of PPP in health policy. The Expert Panel should identify how the needed information can be produced.

3.2. List of specific questions for the review

1. Is the methodology appropriate?
    a. General comments on the appropriate methodology for answering questions about value for money (cost-effectiveness)
    b. Case studies

2. Is PPP a cost effective approach for health service delivery?
    a. Will the cost of borrowing be lower?
    b. Will the total cost of construction and/or management of the facility be lower, compared to traditional public procurement; assuming the same function?
    c. Will function improve at the same or lower costs, compared to traditional public procurement?
    d. Will health service productivity be higher, for example measured as cost per hospital episode or physician visit?
    e. Will cost-effectiveness in terms of cost in relation to health outcome be improved?

The answer to the above questions should be related to the different types of PPP defined in the report. Service productivity and health outcomes can be studied only when the PPP includes a service contract.

3.3. Methodology – General comments

Whether the methodology utilised by the contractor is appropriate or whether there remain important aspects of the analysis which are not properly covered?

In general, value for money or cost-effectiveness of a specific way of health service provision, **can only be calculated for a defined patient population in relation to a defined alternative**. Since we do not have the option of undertaking experimental studies, the data for assessment may come from case studies or observational studies from clinical practice. The problems involved in securing internal validity, that observed differences relate to the alternatives compared and not to other factors, are well known. However, they are common with most other policy studies and methods have been developed.

One important aspect that was missed in the report of the contractor was that PPP and traditional procurement of facilities and services may **not only be seen as alternatives, but as complementary**. The development of the payer-provider split in public health care systems has resulted in a mix of public and private providers in most health care systems. The question may thus be what constitutes the optimal mix, rather than how the two types of providers compare ”on the average”.

The Expert Panel on effective ways of investing in Health was requested to provide its views on the study "Evaluation of public-private partnerships in health care delivery across EU", which is presented as Annex of this request. In doing so, the Expert Panel is asked to pay particular attention and express its views on:

a) *whether the choice of Member States and case studies selected by the contractor are representative of the EU situation of PPP in health care delivery;*

No. Only 15 cases (of which only 14 were analyzed). Most cases involve building hospitals, not providing health care service.

b) *whether the methodology utilised by the contractor is appropriate or whether there remain important aspects of the analysis which are not properly covered*;

No. Case control study would be more appropriate, if health effects of the projects were analysed. Several important aspects of PPP were not covered in the report (see below).

On the methodological aspect, there are two different points; the definition of the methodology, and how successful it is in the use of the methodology initially proposed.

Starting with the second point, the study intended to base the analysis on surveys sent to countries key informers. The low response rate, while not wholly unexpected, did not allow the analysis to proceed as was initially intended, and so the authors turned to a desktop review of information from all sources. This is a feasible approach, but falls short of the insights that could be gathered using other approaches, such as in-depth interviews (which would be costly to do) given the absence of statistical data. Still, in some cases, the statistical information on the projects could be found. The point of finding a "twin" in the public sector is an appropriate empirical strategy, and this should be looked at more carefully. In the infrastructure-only PPPs, usually only the building phase is required. *It would be important to know whether better construction and maintenance contribute to better quality of health care,* but disentangling public management from the PPP-specific contribution is arguably hard to perform and probably beyond the scope of the study.

On the other hand, the PPPs involving clinical activities may provide an easier way as the management and building are bundled already in the PPP. *Finding hospitals of similar size and complexity should not be too hard.* Taking the Portuguese example, it is even the case that PPP contracts specify reference groups of public sector hospitals against which the PPP indicators are judged. Obtaining aggregate information of hospital performance for comparison should not be very difficult.

The survey tool, as described in the appendices of the report, is too long, too open and too detailed for overburdened staff to complete in response to the request. It is not surprising that few replies were obtained. For some of the questions asked the answer can be found in information which is in the public domain. It would actually be possible for the study authors to answer the survey for each country on the basis of the information collected. And then only the missing gaps would need to be filled by the key informants.

Risk sharing in a PPP is usually not an objective of the PPP but an instrument. The PPP does not exist per se to transfer risk to the private side. If this was the case then pure financial instruments would be enough. Moreover, as it is stated in the study, governments/states have in general a higher risk-bearing possibility than individual parties (consortiums, banks, etc.) and *transfer of risk also means that remuneration from risk bearing needs to be paid as well*. The risk transfer within a PPP contract exists as an instrument to provide the appropriate

incentives by one side (public) to the other (private) side. The assessment of risk sharing in a PPP should then evaluate how much the risk transfer contributes to the objective of providing the necessary incentives to achieve the objectives. For example, whenever completing the infrastructure construction in time and with no cost overruns is an objective, transferring the associated risk to the private side is essential to provide the right incentives. Whenever the project is completed on time and with no cost overruns, that risk transfer has produced the right effect. Whether it was worthwhile needs to be judged against the cost of the risk transfer, the extra remuneration paid to the private contractor because of the risk transfer. As an extreme case, if the payment required to get the project completed on time and with no cost overruns was actually higher than the government doing it with cost overruns, the objective of the risk transfer and of the PPP (on this particular point) was achieved but not in a way that improved social welfare.. The usual presumption is, however, that cost savings and value from doing the project on time and without cost overruns are large enough so that they can pay the risk bearing by the private contractor and provide higher surplus to all participants (as efficiency gains from the PPP are shared between the two sides with an appropriate definition of the payment).

A similar analysis for other risks transferred should be done: what is the benefit from the risk transfer? Was it achieved? What was the associated cost? These are quite difficult questions to answer, but just looking at league tables of risk sharing with different risks is insufficient to evaluate the merits (or demerits) of particular PPP contracts. Since these can be only analyzed on the basis of the long-term experience, the report of the contractor failed to produce adequate answers to these questions.

Two other evaluation gaps in the methodology should be pointed out: *renegotiation rules* and *appropriateness of use of PPP to the project*.

On the renegotiation point, which is different from dispute resolution, the study refers only briefly to some points on renegotiation, mentioning cases where it has happened, and stating that for many PPPs it is still too early to know. From international experience on PPP, evidence shows that renegotiation occurs frequently and most of the time by the initiative of the public side. Thus, PPP contracts need to be assessed on several criteria related to renegotiation: 1) who can initiate a renegotiation (usually both sides)? 2) how is the renegotiation organized? For example, suppose a new technology arrives that implies a change in the building that was not anticipated in the contract. 3) does the public side have the right to impose the change and is the value of it determined by some rule, or does the private side have the right to refuse it until a price is agreed? These rights determine the bargaining power of each side and may influence the costs of renegotiation to the public side. Often renegotiation triggers and rules are specified with relation to financial aspects of the PPP, but a broader view is required. This is particularly true for PPPs including clinical activities, as technological advances often impose higher costs, not known at the time of the PPP contract signature, and governments usually want to adopt them. *A table addressing how renegotiation rights (power) are distributed by the contract (or if not explicitly included, what is implied by general law) would be welcome in the report.* It is also important that renegotiation rules (implicit or explicit) discourage renegotiation as a mere strategy of rent seeking by the private parties.

On the use of PPP, a relevant discussion of the existing options should be made in terms of the type of activity included and the extra costs of doing it publicly. This is mainly relevant to the option of including clinical services or not. The insight from the literature on PPP design is the identification of the trade-off between verifiable aspects of clinical activity and the extra costs

of doing the project by traditional public procurement. An example of application is that a PPP to build and operate a hospital including teaching and university activities as well as rare and state-of-art procedures, which have a higher number of non-verifiable elements, should be less prone to include clinical activities than a hospital intended to treat minor to mild, routine, conditions. This is the clearer example, but PPP for infrastructure alone may also face a similar trade-off according to the verifiable elements that may exist (the inclusion of not of ancillary services, like catering and laundry, may or may not contain problems of verification of service provided). The report of the contractor failed to take into consideration the multiple differences between different type of health care units.

A different point related to PPP is the ability of government to manage PPP contracts in health, as specific knowledge is required, the more so in countries with PPPs of higher complexity, like the ones involving clinical activities. The role of external audits is, of course, relevant and necessary, but not sufficient. The study should also comment on the existence, or not, of dedicated teams in the public sector for the management of the PPP contracts, and how stable these teams are (rotation of staff, with aggressive hiring by the private sector may hint at lower ability of the public sector to deal effectively with the complexities of PPP contracts).

On the quality of evidence, we have no way of checking all the information of all the case studies. The Expert Panel has commented (see below) on the case studies on the basis of its specific knowledge about them.

3.4. Methodology - Case studies

Whether the choice of Member States and case studies selected by the contractor is representative of the EU situation of PPP in health care delivery?

The key parameters of the case studies are presented in the summary table in the appendix.

Case Study: United Kingdom

The main text provides a good overview of the consistent, and one might argue, sometimes unfounded optimism about PFI schemes by successive UK governments and the dysfunctional reality exposed by parliamentary committees.

However, there is a gaping hole in that the peer-reviewed literature, which identified the problems early on, is completely ignored. One of the most prescient researchers was Allyson Pollock, who accurately predicted the problems with PFI over a decade ago (Gaffney et al, 1999a; Gaffney et al, 1999b; Gaffney et al, 1999c; Pollock et al, 1999). There is also additional peer-reviewed literature, for example listing examples of the quality problems described in the Norfolk & Norwich case study from other PFI hospitals (McKee et al, 2006) and a discussion of the public sector debt accounting issue (Atun and McKee, 2005). Nor is there any reference to her evaluation of a Scottish Independent Sector Treatment Centre, the only one done so far (Pollock and Kirkwood, 2009). The reason why this literature is important is that it shows that the problems were recognised by the academic community long before there was any political recognition of them. The statement on page 44 that "Initial results seemed satisfactory" is therefore misleading (EAHC 2013b). They only seemed satisfactory to those who did not carefully go through the evidence. Indeed, politicians actively derided Pollock and her colleagues. However, the overview reaches conclusions that are supported by the evidence and it is easily understandable why some commentators have described the PFI scheme in a negative way.

The case study of the Norfolk and Norwich Hospital is a good one. It is well conducted and, throughout, describes the quite bizarre nature of the arrangements. One element that is missing is the concern about patient safety and the intimidation of those who spoke out about genuine concerns. Inevitably, this is not to be found in official documents, given the determination to cover it up, but a good review is at http://drphilhammond.com/blog/tag/norfolk-and-norwich-hospital/. The case study clearly brings out the problems of information being held as Commercial in Confidence and the almost complete lack of transparency.

It is difficult to say which ISTC should have been selected as a case study as there is very little information on any of them in England. However, it may have been more appropriate to study the Scottish one assessed by Pollock and referenced above.

On a final note, the report misses one issue that is becoming increasingly important. This is the problem created by the inflexibility of PFI contracts within the broader health economy, both in terms of preventing necessary reconfigurations and accumulating unsustainable debt.

(e.g. SE London http://www.theguardian.com/commentisfree/2013/jul/31/lewisham-hospital-cuts-jeremy-hunt-unlawful,
Monklands http://www.heraldscotland.com/sport/spl/aberdeen/pfi-is-at-the-root-of-monklands-a-amp-e-closure-1.97890)

Case Study: Portugal

The reference to the Hospital Amadora-Sintra as a PPP should be more detailed, as it is private management of public infrastructure (the hospital was built under traditional public sector procurement). There were, at least, three different evaluations of this experience – an initial one, carried out for INA – Instituto Nacional de Administração, and led by A Correia de Campos, a middle-of-the-road one, also for INA, led by Jorge Almeida Simões, and a third one, at the request of the private consortium that managed the hospital, led by José Neves Adelino. The PPP of Hospital Amadora Sintra has returned to the public sector by political initiative and based on political motives. The PPP itself had different moments and performance varied over time. Broadly speaking, the experience of a PPP comprising only the management of clinical activities (as the infrastructure was built by the public sector) shows the need for a prepared public partner to engage and manage the PPP, and that private performance is sensitive to the incentive framework it faces.

As the reviewed cases show, the second wave of PPPs in Portugal, after the initial case of Hospital Amadora-Sintra, included the novelty of awarding both the infrastructure and the clinical activities management. The integrated PPP model assumes different timings for each component. Ten year contracts are given to clinical activities management, while 30 year contracts are used for infrastructure. The public partner retains the option of changing the private operator of clinical activities after 10 years. This requires two different entities to take each contract, although having the same stakeholders to a considerable extent.

An important feature of the integrated PPP model used in Portugal is that, unlike the Alzira model, it does not include primary care centres, which remain under public management.

Evaluations of the PPPs in the health sector have been carried out by the Tribunal de Contas (Court of Auditors). The reports from the Tribunal de Contas focus only on the tendering phase and on the time elapsed between start of procedure and signature of contracts. The contract phase is not addressed (as it had just started at the time of assessment by the Tribunal de Contas). The reports highlighted the procedural problems that existed and delayed considerably the decision of the selected private partner.

More recent PPPs incorporated lessons learned, and were faster in the tendering process to select the private partner. The tendering procedures had several participants that competed on price to gain the tender. This is reflected in several cases where the final price was considerably below the Public Sector Comparator. This will be reflected in more demanding financial constraints on the private partner.

In one case, the PPP of the rehabilitation hospital of S. Brás de Alportel it is said that full capacity was not used in the first year, but it needs to be clarified that being a specialized hospital demand was fully determined by the regional health authority, and it was not under the control of the hospital management.

Currently, the hospital PPPs are seen by the population as part of the NHS service offer, and no major issue of access has been reported specific to them. On the financial condition of the PPP, the information is scarce and media news report difficulties from time to time. No formal renegotiation on a large scale has been required so far.

Case study: Spain

The first tender to build and operate a public hospital, with the concession model to a private company was in 1997. From then till now 24 PPP initiatives have been developed:

- 14 "PFI-infrastructure plus non health services"
- 9 "PPP-infrastructure plus health care provision"

There are also a few initiatives of "PPP-health services" in the provision and Management of High Technology Equipment (for example: MRI-Valencia Region).

In the same period other public hospitals, care centres, and health programmes have been developed through traditional procedures.

Part of the public financed health services in Spain are currently provided by private suppliers:

- 10% of primary health services (mainly Muface, Isfas, Mugeju)
- 20% of hospital and specialist services
- Dispensing of medicines, contracted by the public health care administrations with private owned pharmacies.
- Part of haemodialysis services and part of ambulance transport services, etc.

Therefore, the collaboration of private providers (non-profit and for-profit) with the public sector is not new. There is large and very diverse experience of collaboration. It is important to note that these services are contracted and paid for each activity (diagnostic tests, x-ray exams, hospitalizations, consultations, etc.). In some cases (Muface, Isfas, Mugeju) the services are contracted for a whole year, covering PHC, specialized care, hospitalization, medicines, etc., and are paid on a per-capita basis. These contracts have to be renewed annually. That means services are contracted in a more flexible way than PPPs, without the long-term risks transferred to the public sector (10 to 30 years "concessions").

There are some independent reports concerning PPPs in Spain:

1) The Regional Court of Auditors of Valencia Region, in its recent report "MRI a chance to save" (2013), found that potential savings using traditional public provision compared with "PPP-10 years-contract" (concession) would have amounted to €16.7 million annually (40% less than PPP-contract). They pointed out that there is not enough information to determine if the services were offered in accordance with the contract.

2) The National Competition Agency Report about "procurement and competition in the bidding processes for the provision of public health services" (2013), showed many inadequacies in the processing of tenders and contracts of PPP from 1997 till 2010.

3) The Spanish National Association of Public Health and Health Administration (SESPAS, Madrid 26/11/2012) approved a declaration concerning the privatization of health services stating that private management strategies, especially PPPs, did not prove advantages that justify their implementation. "PPP-infrastructure" contracts have led to important problems related with the increased financial costs… "PPP health services provision" shows more shadows than lights. Before adopting high risks measures, long-

term obligations and uncertain outcomes, there ought to be more information about them.

Alzira model

"PPP-Alzira" hospital broke ground in 1997 and became operational in 1999 after a tender with only one bidder. The Alzira hospital construction was financed by a group of firms constituted by Adeslas SA (a private health insurance company, owned by Agbar SA and La Caixa, a regional savings bank), Bancaja, CAM and Caixa Carlet (three regional savings Banks, in which the Regional Government participated), and Dragados and Lubasa (two construction firms). Although it was a 10 years concession (with an extension to 15 years envisaged), after four years in which PPP-Alzira suffered losses the contract was terminated by the public partner. The Health Administration agreed to pay €69.3million to the private partner for the purchase of assets and compensation for alleged benefits expected (Regional Court of Auditors´ negative opinion). After a new tender with again only the one bidder a new contract was agreed in 2003, with a higher "per-capita", and including primary care.

The Regional Court of Auditors and the National Competition Agency considered the contracting process inadequate in various aspects: Adequate competition (there was only one company bidding in 1997 and in 2003). Time available to present the bids (Technical Projects, Quality plan, investment plan, expert team, etc.): only 1 month and a half. Regulations for the quality control of the services to be provided. The terms for revision of prices, etc. During the financial crisis the situation of Caixa Carlet, CAM, and Bancaja forced them to be absorbed by Banco de Sabadell and Bankia. Over these years public funds were used and are being used to support financial institutions (National Competition Agency, report on State Aids, Madrid, 2013).

When analyzing the cost-effectiveness of this experience, it is not appropriate to compare the "per-capita" paid to PPP-Alzira with other "per-capita" paid to other institutions unless we could confirm that they assumed the same obligations, and they covered populations with similar profiles (demographic structure, burden of disease). At the same time it would be necessary to have information about the costs of treatment for patients living in "Alzira-district" that are being treated in other public hospitals for more complex procedures, and to be sure that these costs are recovered adequately from PPP-Alzira by the public administration. This is a key point in a "per-capita" arrangement that has to be carefully assessed: referrals to other centres, and possible lack of control in inter-hospital payment procedures.

After more than 14 years there is no clear and available information to assess the health and economic outcomes of this experience. The new President of Comunidad Valenciana Region, Mr Fabra, from the same Popular Party (PP) as his predecessor, stated that they are not going to privatize more health services through PPP. The Castilla-La Mancha Government announced in 2011 their proposal to transform three public-managed hospitals in PPP, and now has abandoned that programme.

In Madrid Region, where the Government started a bidding process aimed at introducing new concessions to private firms to manage health personnel in 6 "PFI" hospitals, there has been serious opposition (strikes, demonstrations, and complaints to the courts). In September 2013 the Court of Justice of Madrid decided to suspend the bidding process provisionally. Finally, on

January 27, 2014, the Government of the Madrid Region decided to permanently cancel the bidding process, and the regional minister of Health resigned.

Case Study: France

1. Introduction

This French project is for a specialized hospital in mental health (not in the main hospital categories with or without teaching facilities and surgery departments). Therefore, it may not be representative for general hospitals and international comparison. The investment is for infrastructure only (Type I or II) and for an amount of €2.6 million (below the threshold of €50 million for public investments with PPP, evaluated by the CGI in 2012). This French case should also benefit from benchmarks from the evaluation of the 30 PPP projects evaluated by IGF-IGAS mission in 2012 on financing and piloting of French hospitals.

The case is mainly interesting for the nature of the investment in order to lower the emission of CO2, change the energy mix and possibly the total cost of energy in the medium term or long term. It can be seen as a prototype for substitution between sources of energy in favor of renewable energy. Energy is usually one of the most expensive cost factors in hospital services, therefore, this case can be an interesting reference for other health care organizations for involving stakeholders, designing sets of contracts and incentives as well as management tools in relation to hospital budgetary constraints. The consultants cannot provide any data on percentage of energy in the cost structure of the hospital, before and after the investment; the projections in cost saving, the financial flows associated with the investment and its return remains discretionary. However some forms of assessment on the cost changes after this type of energy investment should be provided; on the benefit side, mainly benefits of reductions of CO2 emissions are mentioned. However, they should be analyzed as positive externalities and not only for patients of that hospital.

The definition of PPP (private-public category in this case of PPPs) is not exactly the definition retained by DG SANCO, since **PPPs in France are used for execution of "missions" of public services**. It is common practice for all public services, and most well known experiences are in the field of public utilities for different contracts of delegated services and investment in public infrastructures (including hospitals and private clinics with public service missions). The ministry with the most technical expertise in the financing, engineering and contractual terms is the Ministry of Equipment However, since health care is under the responsibility of the Ministry of Health, hospital contracts are negotiated and agreed with the different administrative levels of that ministry and with the assistance of the Ministry of Economy (as described in the case).

2. Background

The case starts with an overview of the institutional context especially the legal context in France for investment in infrastructure for hospitals with contractual arrangements with private partners. It would be beneficial to analyze other dimensions of the institutional context, especially because of strategic changes due to the budgetary constraints imposed on the

sector. The team provides a few references, especially the recent reforms under the "Plan Hopital" from 2007, with the launch of PPP calls. However, many changes are also implemented due to the financial crisis; it does not affect the main organizational structure of the system, but it leads to changes in power structures, especially in bargaining power between hospitals and the administration since some regional authorities are extending, closing or merging some hospital units and services and making deals outside the boundaries of their geographical limits. This changing environment and the need for adaptation may conflict with the contractual rules of a PPP in France. However, the Laborit case may not be affected by such changes (this would need to be clarified).

3. The Laborit hospital

The hospital is selected for a project on energy mix leading to reduction of CO2 emissions. The following table summarizes main figures related to that investment on the case study:

Table 1. Hospital Laborit: services and infrastructures- main figures

The case		Number of buildings	Hospital greenhouse gas emissions	Investment in heating network and biomass boiler
		13	8795 tons equivalent in CO2 (2011)	Objective: Reduction of gas emissions by 1000 tons of CO2: 720 due to renovation 280 new energy mix with biomass and solar thermal
Inpatient services (Number of beds)	303	7		
Ambulatory service (Day care)	61	3		
Administration		3		

The team does not provide evidence on the performance of this investment in changing the energy mix in order to reach the target cited in column 3 of table 1. They do not discuss whether the objective is reached, but discuss in general the quality improvement and quality indicators in the hospital and mention that such indicators are not impacted by the change in energy cost and energy mix.

For the evaluation of the project, some basics on cost and benefits could be discussed:

- On the cost side, here are a few comments:

In 2013, the hospital should have available statistics about its annual budget data for energy costs since 2011; the team seems to have had difficulty to access any data, even before the investment so there is no evaluation before and after investment inside the hospital. Hospitals

in France have had computerized information since the creation of the PMSI and annual budgeting with DRGs is usually available on request. At least, comparative data with a case study control, could be provided, for instance with a special request to the Ministry of Health in order to be able to help with an evaluation of the investment.

The ratio between the number of buildings and the number of beds seem very high and may have to be discussed in a performance assessment of the energy savings or reduction of CO2 emissions. It may be better to close 1 or 2 buildings or negotiate a contractual PPP in coordination with additional strategic and operational decisions on buildings. In order to assess the performance of such a PPP in energy saving in the long run, additional information is needed. Energy costs could be compared with other cost parameters in a cost analysis of the hospital.

- On the benefit side:

According to the team, there is no change in the quality of care of the hospital. The team describes several mechanisms of quality improvement and monitoring of patient satisfaction. But, there is no direct link between the cost/ quality effect of the energy investment and quality of care. Patient satisfaction surveys are not very useful. There may be a need to develop quality of air indicators with reported information for the management team more than satisfaction measures based on patient evaluation. Spillover effects on the surroundings are also parts of the benefits.

Conclusions:

At this point, the benefit of this case for international experience is mainly in the good description of the contract and the different terms to incentivize the stakeholders to invest in such a change in energy mix for the hospital; the evaluation would need to incorporate more information as suggested in this commentary.

Case Study: Romania

1. University Clinic in Bucharest

The case study on University Hospital does not seem to fit the purpose of the study since it has not been implemented. This cannot be presented and/or considered "a failed contract" since a contract has never been in place. The proper research question for this case would be "what are the factors that impede the implementation of PPP in health care delivery". Even for this question the case is not documented enough; it seems that the conclusions are drawn by the researchers on the basis of their own knowledge about the Romanian health system and its actors beliefs and behaviour. Even if the researchers are right in their judgement, some evidence should have been presented to the reader.

Moreover, the hospital under discussion that was supposed to enter into a private management contract was "well renovated and equipped, with top medical staff, one of the most prestigious and largest in the country, with no competitions nearby ... " (EAHC 2013b, p. 143). However, the hospitals that did in fact conclude a private management contract in Romania were mainly small hospitals located in small towns that are no longer under the responsibility of the Ministry of Health, but under that of the local authorities.

2. Dialysis Centres in Romania

In the case description there are some incomplete or missing data related to the situation analysis, the design of PPP and the financing.

The analysis is incomplete due to the lack of data. In addition, the analysis should have been done separately for each contract as each contracting firm performed differently. As described in a case study on the Romanian Dialysis Market made available by Link Resource - a consultancy firm working mainly for pharmaceutical companies: "recent moves of the market players indicate an overall market trend towards a high degree of concentration, with most of the small players suffering from poor performance and liable to be acquired by the larger ones" (http://www.hare.linkresource.ro/public/articles/case_study_details/535).

The case study on the 8 dialysis centres does not bring solid and sound evidence on the results of the implementation of these contracts. Despite the fact that the report considers that they were successful, it still mentions that there was "no formal audit or evaluation ... the only indicator of success being the constant replication" (EAHC 2013b, p. 158).

In regard to the contribution of this case study to the general conclusions and recommendations of the research, this is not evident, since the case is different from the others presented by the report. I could not find the right PPP type described in the report (EAHC 2013a, p. 8) in which to put this case.

In regard to the case study's representativeness for Romania, this seems to be a particular case, in which all the revenue is received from the government through National Health Insurance reimbursements, within the framework of a national health programme. In the other more common type of PPP contracts, by which parts of hospital or specific services are

commissioned (i.e. laboratories, outpatient departments, etc) the private partner is allowed to treat private patients.

Case Study: Germany

Two case studies from Germany were analyzed: Asklepios Kliniken Hamburg and the University Hospital Cologne (Uniklinik Köln). The case studies are interesting examples and they provide valuable insights about the magnitude, context and implementation of the PPPs in Germany. However, their selection appears quite random and would need to have a better justification.

There is a long history of private-public partnerships in the hospital and health care sector in Germany. The 'ÖPP-Beschleunigungsgesetz' ('PPP-acceleration law' enacted to facilitate PPPs) has been highly contentious for two reasons: first, according to publicized industry statements the law was influenced if not partially written by the industry (this was denied by the responsible minister), second it employs costing methodologies which allegedly disadvantage traditional public investment methodologies.

The success of any PPP may depend on the existence of an industry competent and capable enough to invest effectively in health. In this regard, the industry should be better profiled. Some of the smaller private Hospital chains, such as Wickert Klinken or AHG have been operational since the 1960s and 1970s (Wickert alone runs 45 hospitals and rehabilitation facilities). Many have distinctive shareholder composition and value chain strategies. Asklepios is family owned but SANA is owned by the private health insurance industry. Other major hospital chains include Siemens, B Braun and Fresenius SE & Co Kg. as key shareholders, covering the whole value chain The private partner of the PPP with Uniklinik Hamburg case study is a subsidiary of Fresenius. In this regard it should also be mentioned that some of the private hospital chains have invested in ambulant medical centres.

The case studies provide a great deal of numeric information and use another hospital as a comparator. The comparator hospital seems to be randomly selected and does not provide the necessary economic evaluation. However, several studies (some of them quoted by the contractor) that do this economic evaluation are available and could have been utilized. There is also an abundance of publicly available hospital data, which should, at least allow evaluation of certain dimensions of hospital investment and performance.

PPPs have been a concern of public debate when they fail to deliver according to plan. One high profile example has been the cancer therapy unit of Marburg University Hospitals where the state government of Hesse is suing the PPP partner.

There is a lack of referencing in the case studies. This is surprising because there is a huge German literature and a lot of coverage in the newspapers.

Case Study: Italy

Italy represents the second largest market for PPPs in the health care sector in Europe, following the United Kingdom. Nevertheless there are many differences from the British model.

Italy provides an example of a highly decentralized approach to PPPs since the late 1990s. The PF has become the main instrument adopted by Regions and health care companies to bridge the gap between the financial resources available and the need for investment in the sector of health, as well as to convey the efficiency and quality standards typical of the private sector in the process of modernization and upgrading of the facilities of the National Health Service.

In the first one (Castelfranco Veneto and Montebelluna Hospitals) the overall value of the required investment totaled about €120million,, whereas the resources provided by the Central Government amounted to €31million. The agreement concerned modernization and non-medical services management of the hospitals. Because of bureaucratic delays (3 years) the PPP contract, was signed only in 2004 between the local Health Authority and a private company (Solo Hospital Services). The rules were clear: penalties would be levied if the private partner did not meet the performance standards set by the Health Authority. A positive aspect of this contract is the commitment by Solo Hospital Services to reinvest in technological upgrades 19.6% of the fee paid out annually by the Health Authority. One of the reasons for this success is related to transparency between partners, reached through a proper sharing and division of risks between the two parties.

The second case, the new Sant'Anna Hospital in Como, concerns the construction of a new hospital. This has met with local resistances due to the difficulty to accept the displacement of hospital services from the city to a suburban area. After 5 years of waiting, in 2006, the project was awarded to a private consortium (Altair). The source of funds has been somewhat heterogeneous: €10.3million from Altair, €61million from banks and €95.4million from the Central Government under National Law 67/1988. Construction work lasted less than 3 years finishing in 2009, much less than the average time of construction of a hospital in Italy (12 years). In the first years of activity, until 2012, the new Hospital of Sant'Anna has reached surprising results in terms of levels of performances with an internal rate of return on the equity investment, declared by the private stakeholders, of 11.5%. Most of the success of the initiative has to be attributed to the availability of private partners to share and bear risks and responsibilities.

The Italian situation is characterized by a decentralized approach to PPPs. Decentralization does not enable standard models to be applied, but does enable identification of customised and innovative solutions, designed to take advantage of the opportunities available. This is the reason why the deals are concentrated in areas of the country (in Northern Italy) that are recognized as the strongest, financially and operationally. It is clear that systematic guidance and support from the central government, in terms of clear legal frameworks and methodologies for the evaluation of cost-effectiveness, would help to make decisions more quickly, either for or against the PPPs.

Moreover, to understand the application of the PF in the health sector in Italy fully, consideration of the Italian health care context is required. The health care companies maintain the role of the owner-manager of health care facilities; consequently a heavy bureaucratic process complicates the granting of full implementation of hospitals or part of them, even if they were endowed with functional and economic autonomy.

Both case studies (Castelfranco Veneto and Montebelluna Hospitals and the new Sant'Anna Hospital in Como) are well-conducted examples of PPPs in Italy. They are two stories of success in PPPs, although with initial difficulties.

Case Study: Finland

The idea of establishing a specialist centre for joint replacement in Tampere first emerged in the 1990s. The project was eventually launched in 2000. Orthopaedic operations began in 2002. It carries out about 3000 artificial joint operations annually and employs some 180 people.

In 2012 Coxa's turnover decreased significantly from the previous year and was €22.3 million. Decline from the previous year was recorded -13.8 per cent, or 3.6 million. In the previous year the company's net sales were €25.9 million. Net profit fell to €509 000, compared with the previous year's €672 000 (24.3 %).

Coxa is nowadays owned totally by public partners (Pirkanmaa hospital district and municipalities). Medical activities of Coxa are described correctly in the report. However, the initial funding of Coxa is not described in detail. Some private partners were not willing to participate or sold their stakes in the early phase for reasons that are not disclosed.

The report does not include data on the medical results or quality comparisons with other orthopedic hospitals in Finland. The results in Coxa are presented without data for public hospitals of the same size, which are quite comparable in Finland. It can be questioned whether the reported differences in change times between operations (16 min vs. 90 min) are correct. The same applies for the survival of the implants (e.g. when the problems with metal-on-metal hip implants are included into the analysis)

Case Study: Czech Republic

The Czech government cancelled the planned project (worth some €50 million) in 2011 for budgetary reasons and due to the fact that the tender might be challenged, if the project plans were changed in order to save money.

The construction of new buildings for the Prague Military Hospital was to be a PPP pilot project in which the state wanted to test cooperation with the private sector. The project included underground garages, a swimming pool and a three-star hotel for the families of war veterans.

Since the PPP project was cancelled, no conclusions can be drawn how the model would have worked in practice. However, the cancellation demonstrates the difficulties that often encounter large PPP projects.

Case Study: Sweden

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 rationale to adopt the model of a public-private partnership was guided by a belief that this would bring three potential benefits:

1) 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;

2) 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;

3) Better value: deriving from design innovation and lifecycle cost considerations embedded in the contract framework.

The NSK PPP could be based on experiences with hospital PFI in the UK, and the project sought to address some key concerns. First, 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, the bidders were required to address the issues of adaptability and flexibility explicitly.

This represented, according to the report, 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 against future flexibility and adaptability. These were the reasons for NSK to be included among the case studies.

When the final bidding process was over and the procurement announced it was 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 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.

The report states that "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", and "inclusion in the PPP study would simply repeat what has already been published. For these reasons NSK was withdrawn from consideration."

It is unfortunate that the NSK was not formally included among the case studies. It would have been valuable to follow up this project to explain in more detail why the original objectives

were not achieved. NSK is an example where the government (the county council) could have borrowed the money more cheaply, but was willing to pay a premium for expected benefits in terms of "delivery at cost and in time" and improvements in long term efficiency through incentives for the PPP to invest in quality.

While the project may look like a UK PFI model, the outcome may still be different since it is being implemented in a different context. That is particularly of interest for an EU-wide evaluation, where it is important to understand how a certain model works in different contexts. It would also have been interesting to evaluate to what extent an improved management of the PPP project could reduce some of the problems identified from international experiences. While the transfer of risk objective may not have been met, the objectives about flexibility and adaptability, delivery on time and on budget ,and in particular the process of service development in relation to the infrastructure, can give important lessons for understanding the role of PPP as a policy instrument.

3.5. Conclusions and recommendations

Whether the conclusions and the recommendations reached by the contractor are sound, evidence based, consistent and comprehensive?

3.5.1. Conclusions

The individual conclusions of the consultants are evaluated below. Further argumentation for individual conclusions is presented in the protocols of the meeting of the working group.

1. *PPP in most of its forms does not eliminate a public budget fiscal constraint; the state will eventually need to pay. For as long as the capital markets are prepared to overlook long-term consequences, the short-term gain can allow a state with a tight budget and weak fiscal position to bring forward investments (perhaps expecting the route of later renegotiation and rebalancing of those projects which prove unsustainable for the concessionaire).*

   The Expert Panel agrees with the conclusion of the report, but the conclusion cannot be based on the data of the report.

2. *Despite the above, the franchise model (attribution of front-line medical services to a private concessionaire) – unlike other PPP types – can be a genuine and appropriate way of moving an investment off the public balance sheet; it is sufficiently distant from state responsibility.*

   The Expert Panel agrees with the conclusion of the report, but the conclusion cannot be based on the data of the report. Private provision may introduce a greater flexibility and easier adaptation when structural changes are needed, than if services are provided internally.

   However, it should be noted that the state/the public administration is eventually responsible to pay costs in a long-term concession. In real life it would be difficult to close a public hospital privately managed. When the private provider fails, the public administration usually takes on the responsibility of management (i.e. covers the risk).

3. *To the extent that health care PPPs are financed by local banks, risk concentrations can create a positive (increasing) risk feedback loop between the banks and the sovereign, over long project durations.*

   This conclusion is not necessarily true and cannot be based on this data.

4. *The economic crisis has led to a dramatic reduction in the number and size of projects, within most PPP types, because finance markets are at present essentially closed (reduced availability of equity and credit, increased real interest rates).*

   The Expert Panel agrees with the conclusion of the report. However, there is indirect evidence that PPP projects are used more often when there is money available to invest. PPP is a financial source to accelerate investments sometimes at a higher cost for the taxpayers. During a recession the public bodies do not move to PPPs, since all public spending is reduced. It should also be noted that there are PPP projects that are not driven by financial constraints. Arguments about cost-effectiveness (allocative efficiency) should be evaluated in the longer run.

5. *PPP programmes are large in national economy terms in the UK (up to 40% of total health sector investment) and Portugal, but are usually 1% or so in other countries. The large (relative to the national economy) PPP programmes lead to fiscal risk, especially where adequate care has not been taken to control contingent liabilities, such as the government guarantees including letters of support, which have underwritten programmes including UK PFI. However, note that public sector projects often create similar and not-visible liabilities.*

   The Expert Panel agrees with the conclusion of the report.

6. *Key success factors in mitigating fiscal risks include avoidance of excess capacity (e.g. via instruments such as the Hospital Plans of German Bundesländer), effective competition among public and private health care providers (Germany, France), and firm contract management (Portugal).*

   The Expert Panel considers this conclusion to be true only in selected cases.

   The concept of mitigating fiscal risks is not adequately defined. If it means that there is a better control of the level of public expenditure, or a certain decrease of public expenditure while maintaining the level of services, it is possible that some PPP projects could do that with the same efficacy as other public managed projects or other public financed and private managed (no PPP) projects. PPPs have not added much advantage to planning, which traditional private provisions of public health care have carried out equally well.

   With value based payments and P4P this problem is increasingly reduced.

7. *The public sector can, in theory, borrow more cheaply than the private sector – but the differential interest rate is often not large because government (the payers) are traditionally reliable clients, and the markets are aware that failing projects are often taken back by the state anyway.*

   The Expert Panel agrees with the conclusion of the report (i.e. that the public sector can borrow more cheaply). The reports from the UK (Parliamentary commissions), and Spain (Court of Auditors) have pointed out that PPPs were more expensive than

traditional models in the long term. If the PPP provider takes risks, the interest rate increases.

The financial burden of capital costs on health care should not be exaggerated. For example pension liabilities are often a much greater problem.

8. *It is difficult but not impossible to blend the use of PPP financing with Structural Funds – both bring process rigidities, transaction costs, and timing issues (SF Cycle is 7 years, PPPs usually last much longer). The experience of using EU grant funds for such "viability gap funding" is scarce in the health sector (though note in the transport sector inter alia the Vasco da Gama bridge, and LGTT).*

   The Expert Panel agrees with the conclusion of the report. Funds have been widely used for PPPs (e.g. in transport). It is possible to use Structural Funds also for health care PPPs, if there are appropriate ways to define the advantages to do that during a cycle (including requirements of cost-containment etc). If not, it seems difficult to justify the use of Structural Funds.

9. *As austerity bites, PPP arrangements, as they are intended to do, protect hospitals from the arbitrarily-reduced maintenance which has traditionally taken place – but eventually this distorts resource allocation versus facilities which are not so protected. The "compressibility" of various types of health spending is an important factor.*

   The Expert Panel agrees with the conclusion of the report, but the conclusion cannot be based on this data. Traditional health sector providers (public and private) are currently suffering budgetary cuts. PPPs have increased remuneration every year and they are not contributing to the general effort of cost-containment. Budget cuts may have to be made from other resources, for example from hospital staff.

10. *There is no convincing methodology for reviewing at national or European level the economic and clinical impacts of accommodation-only (PFI) or joint-venture PPPs (projects are too recent, there are too many confounders, programmes are usually small, diverse statistical data collection).*

    The Expert Panel agrees with the conclusion of the report. Since "accommodation" only accounts a minor part of the hospital costs, it is not even theoretically possible to make the link to clinical outcome and cost-effectiveness. However, for service provision PPPs, where a private provider is contracted and paid for defined services, it is possible to make comparisons with other arrangements; even if methodological challenges are present.

11. *Many health care capital investment projects are blighted by poor project decision-making; this is completely irrespective of the procurement method. PPP therefore is often appearing to create financial distress in current economic circumstances, but only because the project concerned was a poor one to start with.*

The Expert Panel agrees with the conclusion of the report, but the conclusion cannot be drawn on the basis of the reported data, (only 2 reference cases studies).

In a period of budgetary cuts the new infrastructure (PPP or traditional), is increasing annual health care expenditures. The operating costs of any new hospital are contributing to the financial distress.

12. *PPP projects (especially those with integration of clinical services) will fail in most countries unless there is buy-in by the clinicians, and by the wider political environment. This issue is still more emphasised when transforming an existing state facility into a private sector one, and if the public and private sector labour regulations and staff management practices differ significantly.*

    The Expert Panel agrees with the conclusion of the report, but the conclusion cannot be drawn on the basis of the reported data.

    The success of the projects is highly dependent on the management of the facilities in question, particularly how payments and incentives are structured. It is likely to depend also on the complexity of the hospital activities and on undefined aspects of itsfunctions. A PPP of a university hospital is typically more complex than for a local hospital, for example.

13. *PFI is a rigid form of PPP procurement, which is appropriate for those simple projects, which do not have a close connection between the capital stock and service quality/through-life flexibility. Models with a greater degree of "bundling" (JV, integrated hospitals/franchises) offer some limited evidence of improved through-life clinical performance where the service needs to respond over time.*

    The Expert Panel agrees with the conclusion of the report. The cases presented, however, offer very limited evidence of improvement. The case is the same both in the traditional public and in private provision of public health care.

14. *The Portuguese "joint venture/twin-SPV" integrated hospital PPP models have less impressive financial than clinical results, so they may not be sustainable (though this may be a start-up problem). It was difficult to attract funding for them from international sources, and they are contractually-complicated. Their efficiency, however, makes them less problematic for the state than most other Portuguese PPP sector programmes (through use of a disciplined PSC/VfM process).*

    The Expert Panel agrees with the conclusion of the report. The success in the bidding phase (lower price to be paid by the public partner) puts more pressure on the financial results of the private partner in the activity phase. It seems that is some cases the initial bid may be cheap but that the company producing the service can increase substantially its revenues during the maintenance phase.

15. *PPPs can appear to be stand-alone, but in reality are intimately, and sometimes not productively, linked to public sector decision makers – e.g. large public shareholdings, or use of public banks for finance). In practice, some PPP actually start out as public-public partnerships because of the absence of credible private sponsors, though they may attract private investors once the start-up period (and risks) are over.*

    The Expert Panel agrees with the conclusion of the report.

16. *Few patients are aware of the ownership of the hospital they go to, and fewer still care. Patient satisfaction rates are often high and do not depend on the ownership type.*

    The Expert Panel agrees with the conclusion of the report, but the conclusion cannot be based on the data (e.g. the patient satisfaction rates). Furthermore, patient satisfaction rates may vary between different types of service they get at the same hospital.

17. *Franchising to private hospitals can be regarded as PPP when the firms face the same conditions as municipal/state and non-profit hospitals (i.e. they are in the Hospital Plan; no cherry-picking or adverse selection of patients, patient choice; same DRG prices, with money following the patient).*

    The Expert Panel agrees with the conclusion of the report.

18. *In some of the published evaluations, franchises appear less resource-efficient than purely public hospital provision (except in the range of very large facilities). However, they seem to offer higher quality of care. Revenue per patient is greater (higher case mix, up-coding) as is profitability, capital availability and tax generation. Some efficiency gains are made after privatisation of municipal hospitals to the franchise companies; this can be different when the services have the same "case mix" complexity as the public sector - dialysis, radiology and laboratories, for example ("mono-services").*

    The Expert Panel agrees with the conclusion of the report, but the conclusion cannot be based on the data.

    The majority of the information supplied came from the private companies managing PPPs. The efficiency gains in municipal hospitals are related to the increased activity with higher costs for the tax-payers (social insurance). Privatization can give initial efficiency gains, which may be lost in the long run.

19. *It is harder – though by no means impossible - to do PPP where there are legacy assets (for example, an existing hospital taken over by the incoming private contractor) and particularly where there are staff with established work methods associated with that existing hospital.*

    The Expert Panel agrees with the conclusion of the report, but the conclusion cannot be based on the data (only 1 case study reference).

20. *PPPs designed and promoted by the private sector (Italy Merloni law) probably do not fit public needs as well as publically-developed project schemes.*

    The Expert Panel agrees with the conclusion of the report.

21. *Other than standard PPP legal provisions, specific PPP legislation for the health sector as such does not need to be in place – all PPPs in our case studies made use of the existing or updated generic PPP legal frameworks.*

    The Expert Panel agrees with the conclusion of the report.

22. *The approach to Value for Money assessment varies per country, and has been widely criticised for its lack of depth, accuracy and objectivity. The Value for Money test is sometimes even performed by (or for) the PPP promoter.*

    The Expert Panel agrees with the conclusion of the report. However, in most cases PPP project are implemented without a proper evaluation attached to them. That makes it difficult to generate the information necessary for conclusions.

23. *Across the board, public disclosure of data and analyses behind PPP investments is very poor, inconsistent and not standardized.*

    The Expert Panel agrees with the conclusion of the report.

24. *When available, public disclosure of qualitative and quantitative data allowing a comparison between PPP and other hospitals leads to an improvement in performance and public support.*

    The Expert Panel agrees with the conclusion of the report.

3.5.2. Recommendations

The consultants made the following recommendations in their report:

Macroeconomic recommendations

Aside from the project-level VfM calculation, there should be macro-prudential review such that the totality of a government's PPP obligations, including contingent liabilities and ripple effects through public lenders, are visible. This should be carried out by the ministry of finance (or similar), as is done with traditional public borrowing and debt limits. At the level of the ministry of health, current year spending and long term liabilities for PPP contracts should also be included in the total health programme spending limits. PPPs should be on the public balance sheet and accounts, except for those variants with a very substantial risk transfer (probably including demand risk). Good economic practice would go beyond Eurostat or IFRS standards.

The Expert Panel supports these recommendations.

Microeconomic (performance) recommendations

A health care project should be checked thoroughly for robustness and relevance on clinical, economic, environmental and social grounds before the procurement method (including PPP) is chosen. Notably, an appropriate care service model is critically important.

A robust and believable PSC/VfM calculation should always be undertaken. It should be updated and maintained throughout the whole negotiation period;

PPP development should include full stakeholder negotiation, but particularly including the clinicians, especially if clinical services are involved, as clinical staff can assist or resist the implementation of a PPP, especially if PPP implementation affects their work practices and staff management rules;

Full-service PPPs (infrastructure and clinical) should be subject to the same rules on patient access and tariff and inadmissibility of out of pocket payments as hospitals controlled by other public, private or social sector sponsors, to the extent that the patient experience should not differ significantly.

Accommodation-only (PFI) should be used only in special cases (when the public sector needs to construct infrastructure, has no money for investment in the budget but is able to make annual payments).

The Expert Panel supports these recommendations.

Data availability recommendations

Collecting, analysing and publishing generic and comparable statistical data on public hospitals and PPP hospitals should be routine rather than provided only on a voluntary basis. This would allow for regular comparison of outcomes between PPP/PFI and state-managed hospitals. Pairs

of hospitals matched for age, size and population cover should be made available; case mix correction and risk adjustments can be done only by the NHS/SNS authorities themselves.

Calculation, application and monitoring of a Public Sector cost Comparator is highly recommended. Since PPP contracts generally specify target outputs and outcomes, rather than inputs, this is a useful exercise for the public NHS/SNS authorities even when the probability of using the traditional procurement option is low. The PSC is published and used initially in examining the PPP/PFI option and later it serves to monitor the maintenance of Value for Money over the life of the contract**.**

Disclosure similar to that proposed by the World Bank should include concession contracts, side-agreements and subsequent changes, renegotiations and arbitrations, regular progress monitoring reports of the public grantor and the concessionaire as well. This should be mandatory, and would different from the situation today when the parties hide behind principles of commercial or political confidentiality" or the non-commercial nature of some of the private operators which may exempt them from publishing financial statements.

The Expert Panel supports these recommendations.

The recommendations of the Expert Panel

In general there are two main reasons for the use of PPPs.

1. To accelerate infrastructures

   Private provision of public funded health care has been present in EU Member States since the beginning. In some Member States the health system relies more on private provision than on public provision. The novelty of PPPs is not in the private provision of publicly funded health care, but in the concession model. This model, initially designed to build infrastructures (PFI) with long-term contracts, entails an obligation of periodic payments (including annual increases, for a long period of time). This model is more rigid than the traditional forms of private partnership in a health care delivery system. In the long term it could also be more expensive for public finances.

   The concession PFI-formula originated from the need for some public health services to obtain private financing to accelerate the construction of new hospitals or residences. Its economic context was growth and expansion. Health services then had a budget sufficient to meet the new commitments of annual expenditure of the concession.

2. To reduce costs

   Here we could consider two possibilities:

   The first possibility would be a new service for a given population. In this case the operation of this new service will motivate an increase in total health spending. There will not be cost containment. The second possibility is the renovation or construction of a building or facility to a service that is already running, or the provision of services that were already provided, where there is no added cost. There is, however, no generalized evidence that a PPP-model is more efficient than a public provider or

traditional private services. On the contrary, various reports show that PPPs have been more expensive in the long term.

Public disclosure of data and analyses behind PPP investments is very poor, inconsistent and not standardized. Therefore, many conclusions of the report are based more on assumptions than actual data. There is, however, considerable experience across Europe of "publicly financed privately provided services" through non-profit and for profit hospitals, autonomous professionals, pharmacies, ambulances, etc., with different kind of contracts and agreements. **In this study (and in the literature) the Expert Panel has not found scientific evidence that PPPs are cost-effective compared with traditional forms of public financed and managed provision of health care**.

The Expert Panel is of the view that specific research, in order to compare the cost-effectiveness of projects procured via PPP (PFI-accommodation only; PPP-clinical services) and those procured via conventional regimes, is needed.

The research should answer the specific set of questions for PPPs:

- Will the cost of borrowing be lower?
- Will the total cost of construction and/or management of the facility be lower, when compared to traditional public procurement (assuming the same functions)?
- Will functions improve at the same or lower cost, compared to traditional public procurement?
- Will health service productivity be higher, for example measured as cost per hospital episode or physician visit?
- Will cost-effectiveness in terms of cost in relation to health outcome be improved?

The comparisons should take into account at least:

- Hospital (or other infrastructure) volume and years of functioning,
- Services covered and provided,
- Case-mix,
- Proportion of patients referred to other places (hospitals, social services, home, etc.) and
- Internal billing, and payment methods (per day, per case, per inhabitant, etc.) in the compared initiatives.

The "value for money" of PPP versus internal service provision is not adequately covered in the report, which focuses on traditional PPP for infrastructure. To answer this question an additional set of case studies should be included. Specific research, in order to compare the cost-effectiveness of projects procured via PPP (PFI-accommodation only; PPP-clinical services) and those with conventional regimes is clearly needed. Also case studies on sites with different pooling of some activities such as logistics functions (often under PPPs) should be included since they change the resource allocation and lead to savings for each individual hospital. Pooling of resources via common software development leads to savings as well.

The Expert Panel emphasizes that the evidence shows that ownership is not a major determinant of efficiency in service provision. **An appropriate structure of incentives for providers, including the financing mechanisms, together with competent management and follow up are more important determinants of outcome and cost-effectiveness**.

In relation with the recommendation on the use of Structural Funds, the advice of the Expert Panel is that **only after having obtained evidence of the comparative advantages of current PPP-long term concessions, would the use of Structural Funds for this kind of investment be justified**.

The use of Structural Funds for PPPs can be seen as a contradictory decision: If the PPP initiatives are designed to advance funds *from* the private sector *to* the public sector, how can we justify giving public funds for the public-private partnership investment? Furthermore, there are new types of PPPs not requiring that the private enterprise advance the money for infrastructure, because the infrastructure will be financed in whole or in part by public funds. How in these cases is the PPP model justified at all? In PPPs the concession contract is by definition long (from 10 to 30 years), because there are construction costs that the private partner should recover during the years of the contract.

In the financial market PPP contracts are considered "financial products" that are bought and sold. This may introduce a risk of fragmentation and instability into the health system, because the driver of the system could shift from health values and objectives to financial values and financial goals. It could be difficult to manage this balance by governments.

A checklist on the use of public funds (like Structural Funds) in health PPP initiatives should be created. The list could include e.g. the specific objectives of the project, advantages expected, the risks to be controlled, additional costs, the criteria for an effective contracting process, the monitoring systems and the requirements on transparency.

3.6. Additional evidence

The Expert Panel was asked to *"Identify what additional evidence is necessary in order to best develop EU policy for the proper use of PPP in cost-effective and sustainable health systems. In doing so, the Expert Panel should provide guidance on the steps which need to be taken and the methodologies and approaches which are to be followed in order to gather the needed additional evidence."*

An important starting point is to recognize that **a PPP cannot be good if the underlying public investment decision is not a good one, no matter how well designed is the contract between the public partner and the private partner**. A badly designed PPP contract can create problems for a good public investment decision, but a well-designed contract cannot remedy a bad public investment decision.

Therefore, the first screening test on the effects of a PPP is to assess **how good is the underlying public investment project**? For good investment projects in health, the PPP is an instrument competing with other alternatives. Thus, such comparison should be clearly made, and should go beyond the mere analysis of budget impact. On top of the technical quality of the contract itself, issues like transparency of decisions, present and future, as well as the level of preparedness of the public partner to manage complex contracts need to be ensured. EU recommendations about information and documentation required in relation with current PPP-long term concessions are needed. They should include collecting, analysing and publishing data (financial arrangements, inputs, outputs, outcomes, etc.) on public financed hospitals to permit appropriate assessment of different models.

PPP in health have in most cases been a response to a specific problem or policy situation. In some cases projects seem to have been designed without sufficient preparatory studies, but in others great efforts have been devoted to the planning of the project. However, a common shortfall of all projects is that no formal evaluation of the outcome has been planned into the project. Ex post evaluations that have been performed thus all suffer from lack of data for making assessments of when and how PPP may be an appropriate and valuable policy instrument.

The problems of undertaking a proper evaluation to answer questions about PPP as an evidence-based health policy instrument should not be underestimated. Many investment decisions are of a strategic nature, and it is even in principle difficult to define the alternative, and provide evidence on the consequences of different actions. This is not specific for PPP, but shared with many decisions in health policy. It is difficult to evaluate the consequences of investments in new medical technologies, or different forms of organizing health care.

With an increasing number of alternatives developed for health care delivery, PPP being one of them, the demand for proper evaluations has been identified as a key factor for the development of evidence based health care, and other investments in health. In the United States, the development of comparative effectiveness research (CER) is a response to these demands (IOM, 2009; Luce et al 2012). In Europe, the concept "relative effectiveness assessment" has been developed to cover similar issues. There are connections between these new concepts and earlier developed concepts and methods, such as evidence based medicine (EBM), and health technology assessment (HTA), see Luce et al (2010).

The essence of the new methods are a focus on outcome, a comparison of relevant alternatives, and using data from clinical practice rather than clinical experiments for assessing the outcome and cost-effectiveness. This is highly relevant for PPP, which is a form of health care delivery, and different ways of health care delivery was defined by IOM as a priority for CER. Evaluation of PPP must also be undertaken using data from observational studies, since it is in most cases not possible to use an experimental study design. Since health care increasingly focuses on patient outcome and cost-effectiveness, PPP including health care delivery must be evaluated using the data from clinical practice.

The methods for such studies, and the data needs, are very demanding and there are a number of complications to consider. However, principles and methods have been defined, and data are increasingly available from electronic medical records and other patient registries, as well as different forms of administrative databases. It is thus possible to move beyond the case study methodology and expert opinion as sources of evidence for the role of PPP in health.

4. LIST OF ABBREVIATIONS

AHG	Allgemeine Hospital Gesellschaft AG (Germany)
CER	Comparative Effectiveness Research
CGI	Commissariat Général à l'Investissement (France)
DG SANCO	Directorate-General for Health and Consumers, European Commission
DRG	Diagnosis Related Groups
EAHC	Executive Agency for Health and Consumers
EBM	Evidence-Based Medicine
EIB	European Investment Bank
EXPH	EXpert Panel on effective ways of investing in Health
FM	Facilities Management
HTA	Health Technology Assessment
IFRS	International Financial Reporting Standards
IGAS	Inspection Générale des Affaires Sociales (France)
IGF	Inspection Générale des Finances (France)
INA	Instituto Nacional de Administração (Portugal)
IOM	Institute of Medicine
ISTC	Independent Sector Treatment Centres (United Kingdom)
JV	Joint Venture
LGTT	Loan Guarantee Instrument for Trans-European Transport Network Projects
MRI	Magnetic Resonance Imaging
NHS	National Health Service (United Kingdom)
NSK	Nya Solna Karolinska hospital (Sweden)
P4P	Pay for Performance
PFI	Private Finance Initiative (United Kingdom)

PHC	Public Health Care
PMSI	Programme de Médicalisation des Systèmes d'Information (France)
PPI	Public Procurement of Innovation
PPP	Public-Private Partnership
PSC	Public Sector Comparator
SESPAS	Sociedad Española de Salud Pública y Administración Sanitaria (Spain)
SF	Structural Funds
SHP	Swedish Hospital Partners
SNS	Sistema Nacional de Saúde (Portugal)
SPV	Special Project Vehicle
ToR	Terms of Reference
VfM	Value for Money

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Annex - SUMMARY TABLE OF THE CASE STUDIES

No	MS	Project Name	Financial Closure	Total Value of the Project	Duration of the Project/Payback Time	Population Served	Project Target
1	UK	PFI Norfolk and Norwich Hospital	2001	229 mio British Pounds	35	700.000	Hospital
2	UK	ISTC Specialist Hospital	2004	12 mio British Pounds	15	Additional capacities	Specialist Hospital/Day surgery
3	PT	Cascais Hospital (facility and clinical services)	2010	99.2 mio Euro	30	170.000 plus tourists	Hospital
4	PT	Loures Hospital (facility and clinical services)	2009	135 mio Euro	27	286.000 plus tourists	Hospital
5	FI	Tampere. Tekonivelsairaala Coxa Oy (Coxa Hospital for Joint Replacement)	2000	apr. 20 mio Euro	15	1.700.000	Hospital
6	S	Valencia Hospital de la Ribera, (Alzira)	1997	apr.63.2 mio	25 with additional extension up to 35 years	250.000	PHC/SHC
7	F	Henri Laborit Hospital	2011	3.2 mio Euro	20	Tertiary hospital serving across the boarders	Specialized care Hospital
8	RO	Dialysis Service – Initiation of the eight PPP Centres	2005	4.6 mio Euro	7 with option for additional 7 years extension	4.000.000	Services/Dialysis
9	RO	University Hospital Bucuresti (deal failed)	-	-	-	Tertiary hospital	University Hospital
10	DE	Asklepios Network Hospitals Hamburg	2005	246 mio Euro	25 with possible extension	Access granted country wide	Network of Hospitals
11	DE	Cologne University Hospital	2010	81 mio Euro	25	Cologne and surrounding areas	Hospital + Diagnostic Center
12	IT	Castelfranco Veneto and Montebelluna Hospital	2004	120 mio Euro	27.5	Veneto Region (along with other hospitals in the region)	Hospital
13	IT	Sant Anna Como Hospital	2003	appr 186 mio Euro	25.5	Como region + Milan (cross cutting with other hospitals)	Hospital

14	SE	Nya Karolinska Sjukhuset (NKS)	2009	1.45 bnl Euro	31	County of Stockholm	University Hospital
15	CZ	Prague Military Hospital project (deal cancelled after contract signature)	2010	52 mio Euro	25	Specialised military hospital	Hospital