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Public–private partnerships for hospitals

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Abstract While some forms of public–private partnerships are a feature of hospital construction and operation in all countries with mixed economies, there is increasing interest in a model in which a public authority contracts with a private company to design, build and operate an entire hospital. Drawing on the experience of countries such as Australia, Spain, and the United Kingdom, this paper reviews the experience with variants of this model. Although experience is still very limited and rigorous evaluations lacking, four issues have emerged: cost, quality, flexibility and complexity. New facilities have, in general, been more expensive than they would have been if procured using traditional methods. Compared with the traditional system, new facilities are more likely to be built on time and within budget, but this seems often to be at the expense of compromises on quality. The need to minimize the risk to the parties means that it is very difficult to “future-proof” facilities in a rapidly changing world. Finally, such projects are extremely, and in some cases prohibitively, complex. While it is premature to say whether the problems experienced relate to the underlying model or to their implementation, it does seem that a public–private partnership further complicates the already difficult task of building and operating a hospital.

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Voir page 894 le résumé en français. En la página 895 figura un resumen en español.

يمكن الاطلاع على الملخص بالعربية في صفحة 895.

Background

The delivery of health care in almost every country involves some form of public–private partnership. In countries where care is delivered mainly through the public system, many inputs, such as pharmaceuticals and support services, are sourced from the private sector. In countries with predominantly privately owned facilities, the state influences their configuration through regulations and financial incentives. In hospitals, the situation is further complicated because of the many functions provided by such institutions: the training of health professionals and research and development, for example, are activities that are publicly funded to varying degrees.¹

However, even the concept of a public–private dichotomy is problematic. States often limit the scope of private contractors to decide where to place facilities. Furthermore, there is a difference between for-profit corporations that operate hospitals as one business among many and not-for-profit organizations (including religious foundations) that exist solely to provide health care. This paper will examine one particular type of public–private partnership — the

construction of a health facility and the ongoing provision of its non-clinical (and in some cases clinical) services within a public system of provision.

Private provision of essential public services has a long tradition, especially in major infrastructure projects in the transport sector and in the provision of utilities. The private sector played a crucial role in developing these services in the 19th century but, in the post-war period, many were taken into public ownership because of market failure.²

Privatization of public services became more widespread in the 1980s with the emergence of a neoliberal consensus that sought to reduce the role of the state.³ In the health sector, however, comprehensive privatization was rejected because of the existence of market failure.⁴ Instead, various quasi-market solutions were developed, typically the separation of purchasers and providers within the public sector.⁵ The logical next step was to move the delivery of health care out of the public sector. This was seen as a means to increase value for money, innovation, and responsiveness to users.⁶

The conceptual underpinning of this approach was developed by Williamson⁷

and Ouchi,⁸ with Preker et al.⁹ applying it to health care. Arguing that the public sector is intrinsically less efficient and responsive than the private sector, Preker et al. propose a matrix with one axis defined by the degree of contestability involved in providing a service (i.e. ease of market entry), while the other is defined by the ease with which the outcomes of the service can be measured.

Where there is low contestability and problems of measurement then a service should be provided within a managerial hierarchy; conversely where measurement is straightforward and provision is highly contestable it should be purchased from the private sector. Supporters of this approach have striven to reduce barriers to market entry and to enhance the ability to measure quality. Yet the basic premise is not borne out by the evidence.¹⁰ Australian research showed that, after adjusting for case mix, public hospitals are more efficient than those that are privately operated,¹¹ possibly due to the more intensive management of patients in private hospitals.¹² A systematic review identified 149 comparisons of for-profit and not-for-profit health facilities (of various types) undertaken over the past two decades in

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the USA. Of these studies, 88 concluded that non-profit facilities performed better with respect to cost, outcomes of care, access and social mission, 43 studies found no difference, and 18 reported for-profit facilities to be better.¹³

Public-private partnerships to build and run hospitals

The model in which a public authority contracts with a private company to build or run a hospital is, inevitably, seen mainly in countries with national health services. Various models have been developed (Table 1). Australia has the most diverse range of models, with differing versions in several states.¹⁴ The Private Finance Initiative (PFI) in the United Kingdom is a design, build, finance and operate (DBFO) model. It has been the primary means of financing major capital investments in the health, education and prison sectors during the past two decades. While this arrangement provided a source of much needed new finance, a great deal of this funding was “off-balance-sheet” financing and did not appear in the government books as new borrowing. This arrangement enabled the government to remain within targets set for public sector borrowing. Moves by the British Office for National Statistics to redefine such expenditure are likely, at a stroke, to remove one of the main reasons justification for pursuing the DBFO model.¹⁵

In the British model, a company — usually in the construction sector — will create a “special purpose vehicle” to bid for a contract with a health authority to build and provide non-clinical services to a hospital. The successful contractor will enter into three types of subcontract: one with banks to finance the project; one with a construction company to build the hospital; and one with a facilities management company to manage it over the lifetime of the contract, typically 30 years. Over the lifetime of the contract, the health-care provider undertakes to pay a defined amount from its revenues and the contractor undertakes to maintain the fabric of the hospital in good order and (depending on the agreement) manage facilities. Similar models have been adopted, although on a very much smaller scale, in Canada, Portugal and Spain. It is also being introduced in Ireland and, while not yet used to finance hospitals, is used for procurement of other infrastructure in Greece.¹⁶

Franchising is an alternative model, where a private company takes over management of an existing public hospital. This approach has been tried in Sweden¹⁷ (including the sale of a public hospital to a private company) and in Italy. A unique model has been developed in the Alzira Hospital, in Valencia, Spain, which is managed by a private consortium that accepts responsibility for the health care for a defined population in return for an annual per capita payment.

There is still relatively little experience with these models of hospital provision, and governments have yet to undertake rigorous evaluations. Thus the merits of these models compared with the traditional model of provision remain highly contentious but it is already possible to identify several key issues that have emerged. These are cost, quality, flexibility and complexity.

Key issues

Cost

There are significant costs not only for the firms bidding for a public-private partnership, but also for the health-care provider. Prospective bidders incur large costs in developing their tenders, and losing contenders must find a way of recouping their expenditure from subsequent contracts. A sequence of losing bids by a leading British company involved in PFI deals led to fears of insolvency.¹⁸ Although the PFI process has been simplified by the use of model contracts and other measures to reduce the very high level of complexity — and thus the need for large amounts

of high cost legal, financial and other technical advice — the process remains daunting for parties on both sides of the transaction.

In theory, the British PFI model should contain the cost to the health authority by transferring risk to the contractors. But in practice, the corporate bonds used to finance PFI deals are typically awarded BBB+ status by financial rating agencies, just above junk bond status, while government bonds are considered less risky, and for many European governments attract AAA ratings.¹⁹ The consequence of this low rating is that the cost of borrowing money is higher than it would be for governments. A particular problem arises with the way that the risks of construction are bundled with those associated with the operation of services. Whereas construction risks may be high and quite real, the operation of services carries a much lower risk, not least because hospitals are financially backed by government — i.e. the government is a single payer, meaning that income streams to hospitals are less at risk than in markets with multiple payers. However, some contend that several of the risks factored into PFI business cases are unlikely or notional and appear to be an accounting device designed to favour private procurement in cost comparisons with its public alternative.²⁰ The reason for this may have been a very strong signal from government that schemes relying on public funding rather than PFI were very unlikely to succeed.

The low risk once construction is complete has allowed advantageous refinancing of projects at lower interest

Table 1. Models of public-private partnership in hospital provision

Model	Description
Franchising	Public authority contracts a private company to manage existing hospital
DBFO (design, build, finance, operate)	Private consortium designs facilities based on public authority's specified requirements, builds the facility, finances the capital cost and operates their facilities
BOO (build, own, operate)	Public authority purchases services for fixed period (say 30 years) after which ownership remains with private provider
BOOT (build, own, operate, transfer)	Public authority purchases services for fixed period after which ownership reverts to public authority
BOLB (buy, own, lease back)	Private contractor builds hospital; facility is leased back and managed by public authority
Alzira model	Private contractor builds and operates hospital, with contract to provide care for a defined population

rates, with significant benefits to the PFI consortia. Such activities have attracted unfavourable comment from the British National Audit Office.²¹ Belatedly, the British Treasury required that new contracts should incorporate provisions to share these profits between the contractor and the public authority.²²

The enormous size of some British PFI hospital projects has also been a cause of concern. Where this is the case, it may reduce the level of competition between bidders as there are a relatively small number of construction companies capable of undertaking very large projects and the bidding costs can pose a significant barrier to market entry. One factor behind the increasing size of projects may be that consortia have been unwilling to assume the risk of modifying existing buildings. Building a hospital around existing buildings and services increases the risks and complexity of construction. Because a PFI contract is set up to deliver a single project, there is an incentive to load as much into a scheme as possible since additional capital may not be available in the future. Thus, the risks facing both parties are compounded as the schemes become very much more complex, less financially viable, and the ability to adapt flexibly to rapid changes in the health-care environment is limited, as we discuss later in this article.

The cost of annual charges for buildings constructed under public–private partnership arrangements may be higher than the cost associated with hospitals built and run using conventional procurement methods. Some of this additional cost may be justified as the National Health Service (NHS) in the United Kingdom has had a poor

record of maintaining its buildings, with money meant for maintenance often being reallocated to provide services. PFI contracts ensure that money is put aside to properly maintain buildings. These charges have also focused attention on the costs of maintaining and operating buildings. The legacy of buildings that are expensive to run, clean, heat and repair is a significant problem to the extent that some hospitals constructed in the 1960s and 1970s have already reached the end of their useful life. Public–private partnerships can create an incentive for those involved in the construction of buildings to pay more attention to these issues.

It is difficult to make accurate cost comparisons between the costs of PFI procurement and more conventional methods. Pollock et al. have argued that privately funded initiatives are significantly more expensive than the conventional government funded arrangements for a variety of reasons, including the higher cost of financing associated with lower credit ratings.²³ They also note the requirement for private companies to make sufficient profit to return to their shareholders. While the British government disputes the arguments against PFI, its case is weakened by the lack of transparency that surrounds these projects, which are deemed to be commercially confidential. Comparison between the two procurement models is also made more difficult by the need to take a life-cycle view to accommodate the trade-offs between higher initial capital cost and lower long-term operating costs. Although the decision to proceed with a project should be based on a process that

compares the cost of a privately financed initiative with a public sector option, this comparison is not always straightforward, with the Assistant Auditor-General from the United Kingdom National Audit Office describing this process as “pseudo-scientific mumbo-jumbo.”²⁴

Although this section has examined in detail the evidence from the United Kingdom, similar conclusions have been reached in an economic assessment of the P3 hospital financing scheme in Canada, which shares many features with the PFI model, including the secrecy that shrouds contracts.²⁵

The costs involved in public–private partnerships have frequently been underestimated. Box 1 provides examples of several projects that have encountered serious financial problems.^{26–28}

Quality

In any procurement exercise, when problems arise there are trade-offs between three variables: cost, time and quality. Traditionally, the priority has been to meet the specifications agreed in the initial contract, with a reluctant acceptance that the project may go over time or budget. For example, in the United Kingdom in 2001, 76% of PFI projects were delivered on time and 79% within budget, compared with 30% on time and 27% within budget using conventional procurement. With cost and time seeming to be fixed in the PFI model, concerns arise about the quality of projects, with many of the hospitals built using this model experiencing significant problems (Table 2).^{29,30}

It is important to distinguish between problems inherent in the PFI

Box 1. Public–private partnerships facing financial problems

*Alzira Hospital, Valencia, Spain*²⁶

In 1999 a consortium consisting of an insurance company, banks and construction companies was awarded a contract by the regional government of Valencia to construct a hospital to replace an obsolete facility. The hospital achieved high levels on standard measures of performance but was afflicted by poor labour relations. It became clear that the contract was financially unsustainable and in 2002 a refinancing deal was arranged, providing a substantial financial injection. The hospital is now working well.

*Paddington Health Campus, London, England*²⁷

A private financing initiative approach was chosen as the mechanism to consolidate several world-class teaching hospitals on a single site in west London. In 2000 an Outline Business Case estimated a cost of £300 million with completion by 2006. When the scheme eventually collapsed the budget had risen to £894 million, with completion projected by 2013. Preparation of the failed project cost £15 million. The official report highlighted the extreme complexity of the project, unclear lines of accountability and a failure by central government to clarify whether it actually supported the scheme.

*La Trobe Regional Hospital, Melbourne, Australia*²⁸

La Trobe Regional Hospital was built by a private company to replace older public hospitals, having entered into a confidential contract with the government of the state of Victoria to provide hospital services for 20 years. In 1999 the hospital lost AUS\$ 6 million and was projecting ongoing losses. The Victorian health minister reported that the scale of losses was such that the hospital could no longer guarantee its standard of care. In 2000 the company was released from its contract in return for an agreement to drop legal action against the government. It sold the facility to the government for AUS\$ 6.6 million (about half of its estimated valued) and made an additional payment of AUS\$ 1 million.

Table 2. Quality problems experienced with United Kingdom private finance initiative (PFI) hospital schemes

PFI development	Problems ^{29,30}
Cumberland Infirmary, Carlisle	<ul style="list-style-type: none"> • Use of cheap components necessitating regular refitting • Maintenance costs 50% higher than projections. • Poor drainage and plumbing; and limited signage • Patients leaving the cardiology department must go through five sets of swing doors, even though most are in wheelchairs
Durham District General Hospital	<ul style="list-style-type: none"> • Pathology laboratory flooded three times in first 18 months, twice with raw sewage • Poor ventilation and air filtration • Fixtures and fittings are of poor quality; lightweight storage cupboards unable to take the weight of routine equipment
Bishop Auckland Hospital	<ul style="list-style-type: none"> • Opening delayed by 2 months for modifications • Generator and core electrical systems had to be redesigned immediately after opening
Norfolk & Norwich Hospital	<ul style="list-style-type: none"> • Negative pressure rooms were not properly operational for 2 years • Air ducting found to be lying in unconnected lengths • No ventilation in the kitchens so staff work in 30 °C temperatures (with 44 °C being recorded) • Delivery loading bays inefficient
Hereford Hospital	<ul style="list-style-type: none"> • Boiler house opened with no water treatment plant • Doors too heavy for the opening restraints • Three lifts had to be refitted within 12 months of operation
Seacroft Hospital, Leeds	<ul style="list-style-type: none"> • Mental health facility found to have breached "every section of the fire safety code"

process and more general shortcomings in the mechanisms for the planning and procurement of new hospitals. It is possible that some of the issues with PFI are a more general feature of the design and build model used in the United Kingdom, where public authorities, under pressure to outsource key activities, have run down their architecture and planning departments. Instead of providing the contractor with detailed drawings, a broad specification, which the contractor can then interpret, is agreed. This approach has led to a series of failures in several public sectors,³¹ but also in private sector procurement³² where firms have also been under pressure to outsource core functions. The expertise on the client side of the PFI process is relatively underdeveloped compared with PFI consortia bidding teams. Whereas few health authorities will have undertaken a large capital development, the consortia will have done several.

A related issue is the bundling of design with the rest of the PFI process. Although taking responsibility for design has some advantages for the consortia in terms of being able to control the risks and costs of construction, design features that benefit the user of the building rather than the operator may be less likely to be incorporated. Design elements that might create a more therapeutic environment or an improved work setting for staff are not always implemented. The pressure to reduce building costs has

given rise to several buildings that lack natural light and have other undesirable features. These shortcomings need not necessarily be a feature of public–private partnerships; rather they are a reflection of underdeveloped skills and an imbalance of power and knowledge between client and contractor.

Flexibility

The delivery of health care is changing rapidly, partly in response to altered demands on health-care systems, such as shifting patterns of disease and rising public expectations, and also in response to the opportunities offered by new technology.³³ By contrast, the quest to minimize the risk to which the parties to public–private contracts are exposed has meant that the contracts are often specified in very great detail, with large penalties for introducing changes. This lack of flexibility has meant that the configuration of some hospitals has been out of date by the time they are opened. The problem is not unique to public–private partnerships but the rigidity of contracts makes the solution more complex. In England, the difficulty of inflexible contracts has become more acute as new policies, especially in health, have created a much less stable environment. For example, there is currently a deliberate intention to shift care away from hospitals.³⁴ What would once have been variable costs are now fixed, so the

overall system has very little flexibility to adapt to the new circumstances.

Incorporating flexibility into the original design is possible without adding costs for constructors or operators but it does impose additional design costs. There are few incentives for consortia to build in flexible design solutions since the cost of future modifications fall on the client. As noted previously, the "big bang" nature of most public–private partnerships makes it more difficult to adopt the modular approach to development that would provide more flexibility, although only issues that can be anticipated will be addressed.

Complexity

Although the use of public–private partnerships has been effective when used to finance transport infrastructure (but even here there have been some high profile failures),^{35,36} this success has yet to be repeated in the health sector. The challenges of implementing a public–private partnership have been greatest in the case of major teaching hospitals. These institutions accept a wide range of referrals and provide services for various types of patients. As such, these projects involve many different types of stakeholders. They also require the active participation of universities and research funders. The difficulties in reaching agreement with all of these stakeholders, combined with the high costs of the projects, have led

to the collapse of a major teaching hospital (the Paddington Health Campus) development in west London (Box 1).³⁷ Failure results in very large losses in terms of fees and prepayments. These experiences raise questions as to whether this model can be simplified sufficiently to be used for very complex projects.

Conclusion

The delivery of hospital care inevitably involves many partnerships between the public and private sectors. Here, we have examined the situation where public authorities contract with the private sector to run — and sometimes to build — a hospital.

The theoretical justification for private financing of public facilities, although debated, has come to be widely accepted. However the practical results seem not to have lived up to what was expected from privately funded ventures. The new facilities have, in general, been more expensive than they would have been if procured using traditional methods and where the public sector does achieve a good deal from a privately funded development, it may have to pay

more later to prevent the project from collapsing.

One positive finding is that, compared with the traditional system, new facilities are more likely to be built on time and within budget; but these gains seem often to be at the expense of quality. The need to minimize the risk to the parties means that it is very difficult to “future-proof” facilities in a rapidly changing world. Finally, while the processes involved in procuring standard general hospitals are now well established, the complexity involved is increasing, especially with very large projects.

Major capital procurement is very difficult in any sector. Examples from the defence sector offer many cautionary tales and there are striking parallels between the difficulties being faced by those procuring a major teaching hospital and the current procurement of two planned British aircraft carriers.³⁸ However, public–private partnerships to procure hospital services do seem especially difficult.

Unfortunately, the debate on the merits of different approaches has been

characterized by ideology rather than evidence, with a reluctance to undertake evaluations. In the United Kingdom one of the leading critics of the PFI has been subject to vociferous personal attacks by some politicians.³⁹

It is impossible to say whether the model underlying public–private partnerships is flawed or whether the difficulties with such endeavours are the result of mistakes in its execution. One plausible interpretation is that the additional complexity of public–private partnerships makes all but the most straightforward projects just too difficult. Uncertainty surrounding the role and value of public–private partnerships in health care needs urgent resolution. ■

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Résumé

Partenariats public/privé en faveur des hôpitaux

Si dans tous les pays à économie mixte, on fait couramment appel à certaines formes de partenariats public/privé pour construire et exploiter des hôpitaux, un modèle de partenariat dans lequel une autorité publique passe des contrats avec une entreprise privée pour concevoir, construire et exploiter un hôpital entier, suscite de plus en plus d'intérêt. En s'appuyant sur l'expérience acquise dans des pays comme l'Australie, l'Espagne et le Royaume-Uni, le présent article analyse les résultats obtenus avec des variantes de ce modèle. Même si l'expérience disponible est encore très limitée et si l'on manque d'évaluations rigoureuses de cette expérience, quatre aspects ressortent en tant que critères de comparaison importants : le coût, la qualité, la flexibilité et la complexité. Les nouveaux établissements ont en général coûté plus cher que s'ils

avaient été obtenus selon des méthodes classiques. Ils ont aussi une plus grande probabilité d'être construits dans les délais et les limites budgétaires prévus, mais ce résultat semble obtenu au prix de certains compromis avec la qualité. La nécessité de minimiser les risques pour les parties implique une grande difficulté pour réaliser des établissements «capables d'affronter l'avenir» dans un monde en évolution rapide. Enfin, ces projets sont extrêmement complexes et dans certains cas atteignent un niveau de complexité prohibitif. Bien qu'il soit prématuré pour dire si les problèmes rencontrés proviennent du modèle sous-jacent ou de sa mise en œuvre, il semble qu'un partenariat public/privé complique la tâche déjà difficile de construire et d'exploiter un hôpital.

Resumen

Alianzas publicoprivadas para los hospitales

Aunque en todos los países con economías mixtas surgen ciertas formas de colaboración publicoprivada a la hora de construir y gestionar hospitales, cada vez suscita más interés la opción de que una autoridad pública contrate a una empresa privada para diseñar, construir y dirigir todo un hospital. A partir de la experiencia de países como Australia, España y el Reino Unido, en este artículo se analiza la experiencia adquirida con diversas variantes de ese sistema. Aunque la experiencia es todavía muy limitada y no se han hecho evaluaciones rigurosas, han aflorado cuatro factores: costo, calidad, flexibilidad y complejidad. Los nuevos servicios han sido en general más costosos que si se hubieran empleado los

métodos tradicionales. En comparación con el sistema habitual, los nuevos servicios suelen construirse respetando los plazos y el presupuesto, pero ello se logra a menudo a expensas de la calidad. La necesidad de reducir al mínimo el riesgo para las partes significa que es muy difícil crear servicios «a prueba de acontecimientos futuros» en un mundo en rápida transformación. Por último, esos proyectos son extremadamente, si no prohibitivamente, complejos. Aunque sería prematuro afirmar que los problemas surgidos están relacionados con el sistema empleado o con su ejecución, parece que la colaboración publicoprivada complica aún más la ya de por sí difícil tarea de construir y dirigir un hospital.

ملخص

شركات القطاع العام مع الخاص في المستشفيات

المرفق الجديدة في غالب الأحيان تبنى في الوقت المحدد لها، وضمن الميزانية المحددة لها، ولكن ذلك في غالب الأحيان يكون على حساب نقص في الجودة. وتمس الحاجة إلى التقليل وإلى أقصى حد ممكن من الأخطار التي يتعرض لها الطرفان الشريكان، وهذا يعني أن من الصعوبة البالغة الموافقة على تصميم المرفق بشكل ملائم للمستقبل في عالم سريع التغيير. وأخيراً فإن مثل هذه التوقعات في غاية التعقيد وقد تكون باعثة على الإحباط. ومن المبكر القول بأن المشكلات الآن متعلقة بالنموذج الذي نجري دراستنا حوله أو بطرق تنفيذه، ويبدو أن الشراكة بين القطاع العام والخاص ستؤدي إلى المزيد من التعقيد في المهام الصعبة التي تواجهها عمليات بناء وتشغيل المستشفيات.

رغم أن بعض أشكال شركات القطاع العام والخاص تعد بمثابة ظاهرة مميزة لبناء وتشغيل المستشفيات في جميع البلدان ذات النظام الاقتصادي المشترك، فإن الاهتمام يتزايد بنموذج تتعاقد فيه السلطات العامة مع شركة خاصة لتصميم وبناء وتشغيل المستشفى بكامله. وبالاعتماد على الخبرات المكتسبة في بعض البلدان مثل النمسا وأستراليا وبريطانيا، تراجع هذه المقالة الخبرات المستفادة من مختلف هذه النماذج. ومع أن الخبرات المستفادة لاتزال محدودة جداً وأن التقييم الصارم مفقود حالياً، فقد لاحظنا أربع قضايا رئيسية هي التكاليف والجودة والمرونة والتعقيد. ويمكن القول بشكل عام أن المرفق الجديدة تتسم بأنها أكثر غلاءً من تلك التي تستعمل الطرق التقليدية. وإذا قارنا بين المرفق الجديدة وبين النظام التقليدي نجد أن

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