The benefits and risks of DHBs contracting out elective procedures to private providers

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Abstract

A key plank of the New Zealand National Party’s health policy is to “Support the smart use of the private sector to increase the number of people getting timely access to vitally needed surgery, and reduce hospital waiting lists”. This policy raises a number of questions. These include: How do the two sectors compare with respect to the efficiency of elective surgical services? What effects might increasing private provision have on public hospitals? What impact might the policy have on access to care and equity amongst population groups? What are the effects of different methods of setting prices? This paper reviews both the theory and evidence about these and other questions related to the mix of public and private providers of surgical services in a publicly funded health system. It is concluded that the policy has some potential benefits but also carries a number of risks. If the policy is to be successful, the district health boards (DHBs) will need to be alert to these potential risks and be prepared with strategies to mitigate them.

One component of the New Zealand National Party’s 2008 election manifesto on health policy was to “Encourage the smarter use of private hospitals to support elective surgery in public hospitals, and reduce waiting lists through longer-term arrangements”.1 Steps towards the implementation of this policy were announced at the end of June 2009, when the Minister of Health, Tony Ryall, provided district health boards (DHBs) with a new ‘provider selection protocol’ to guide their purchasing practice.2

Although similar in many respects to the previous protocol promulgated by the Labour Government in 2007, the new protocol removes a requirement that: “in respect of hospital-based services, publicly-provided services are preferred, all other things being equal”. It also releases DHBs from requirements (a) to include any proposals for a significant shift of services from a public provider to a private provider in their annual and strategic plans, and (b) to consult with the relevant health professionals about the proposed change. Any significant shifts to a private provider will, however, still be subject to approval by Ministers. DHBs must also ensure that such shifts do not threaten the long-term viability of their remaining services.

The number of tax-funded surgical procedures provided in private hospitals (excluding ACC) has been increasing steadily over the past few years from 1245 cases in 2005/06 to over 11,000 in 2008/09 (Figure 1). These cases now account for over 9% of all of the elective operations that are funded by the DHBs. A majority of these procedures is purchased through short term, spot contracts, often as a means of reducing waiting lists and using spare funds towards the end of the financial year.
Outsourcing more elective services to the private sector has the potential to provide more efficient and more timely services to patients, and to improve the use of total available hospital capacity. However it also carries a number of risks. These include the possibility that the private sector may be more costly than the public sector; increased transaction costs; poor use of operating theatre capacity in public hospitals; increased problems of retention and recruitment of the public sector workforce; increased inequalities if low risk patients are treated first; reduced opportunities for the training of surgical registrars and other health professionals; the effects of different pricing mechanisms on the supply of and access to services; and any potential impact on the financial viability of services provided by public hospitals.

In order to make some preliminary assessment of some of these potential benefits and risks, this paper explores the following questions: How do the two sectors compare with respect to the efficiency of elective surgical services? What transaction costs might be associated with the outsourcing these services? What effects might outsourcing have on public hospitals? What impact might the policy have on access to care and equity amongst population groups? The analysis draws upon economic theory as well as upon any available empirical evidence.

Relative efficiency of the two sectors

The argument in favour of greater private provision is usually based upon an assumption that the private sector is inherently more efficient than the public sector.
This in turn is based upon the theory that, in a competitive market, providers are likely to be efficient because they have an incentive to drive down costs in order to maintain profits. There are (at least) two reasons why this theory may not hold in the New Zealand setting. First, the majority of private hospitals (such as the group of 14 Southern Cross hospitals) are not-for-profit organisations. They therefore face a rather different set of incentives from those that are assumed to drive the performance of for-profit hospitals. Second, the market for surgical services is generally not very competitive, particularly outside of the main centres.

In many provincial towns, there is often only one private hospital, if that. While there may also be individuals or groups of private specialists who undertake some surgical procedures, the degree of choice of these providers, and of the procedures offered, is again likely to be minimal outside of the main centres. This means that the pressures of competition to reduce costs may be very weak indeed.

Given this divergence of the New Zealand market for surgical services from the standard competitive market model, it is useful to look to the empirical literature on the relative efficiency of the two sectors. As far as we are aware, no studies have been conducted in New Zealand which systematically compare costs and outcomes of procedures undertaken in the public and private sectors. An additional consideration is that prices tend to be quite different in the two sectors, with specialist fees in particular being higher in the private sector. This means that, even if the private sector is more technically efficient (in that it uses fewer resources to produce the same outcome), it may be more expensive because the price of those resources is higher. Because DHBs are allocated a fixed budget with which to either purchase or provide services, it is the price of these services that is of relevance to them, rather than the amount of resources that are used.

In July 2006, the Health Funds Association of New Zealand compared the average cost of five elective surgical procedures in the two sectors during 2004/05. These estimates were based upon answers to parliamentary questions, together with a survey of private providers. Of the five procedures, all except one was more costly in the private sector than in the public sector. Three of the four procedures (total knee and hip replacements and cataracts) were only marginally more expensive while the fourth (angioplasties) was almost twice as expensive in the private sector than the public sector ($13,111 compared with $7377). The fifth procedure (coronary artery bypass grafts) was slightly more expensive in the public sector ($26,925) than in the private sector ($24,188). The study did not report on any differences in quality of care or in health outcomes.

As the authors of the Health Funds Association report correctly pointed out, the complexity of these procedures is likely to differ between the two sectors. All other things being equal, the expectation would be for complexity—and therefore cost—to be higher in the public sector. Adjusting the Health Funds Association cost estimates for complexity would therefore further reduce the relative cost of the public sector compared with the private sector. This simple cost comparison also did not take into account any differences in the components of costs that were included in the cost estimates of each sector (such as pathology, pharmaceuticals, follow-up care and depreciation).
It is also important to make a distinction between those services that are financed publicly (through DHBs or ACC) and those that are financed privately (through private insurance or out of pocket payments). In the study quoted above, public sector services which are financed publicly are compared with private sector services which are financed either via private health insurance or directly out of patients’ pockets. If DHBs purchase services from private providers, they may be able to negotiate prices which are lower than those that are funded privately.

Unfortunately, very few international studies have been undertaken which compare systematically the relative efficiency of services provided in the public and private sectors. A comprehensive review of the literature on contracting out of surgical services to private providers undertaken in 2000 reported that, although it is not uncommon for publicly-funded authorities to contract surgical services out, no study could be found at that time that compared the two sectors in terms of variables such as cost per day, cost per case, total costs, quality of care or health outcome.3

One study from Australia that explored the potential impact of the private health insurance tax rebate on the cost of service provision may have some relevance for the New Zealand situation.10 The study compared the average cost per diagnosis related group (DRG) between public and private hospitals after adjusting for the mix of cases in the two sectors. The authors calculated that the average cost per weighted separation using public hospital costs was about 11% higher (at A$2283) than if the same casemix had been treated using private hospital costs (A$2058). However once these crude figures were adjusted to account for differences in components of costs that were included in the reported costs for the two sectors, the results were reversed, with the estimated average cost per separation being A$1774 using public hospital costs compared with $1941 using private hospital costs.

Overall, the evidence concerning the relative costs of surgical procedures provided by public and private hospitals is inconclusive. The evidence does suggest, however, that it would be incorrect to assume that private hospitals are inherently more efficient than public hospitals.

Transaction costs

Another aspect of efficiency concerns the extent to which the contracting out of services by public funders to the private sector incurs additional transaction costs. Williamson (1981) suggested that, while contracting out may have some potential to reduce costs by encouraging efficiencies in production, it may increase the costs associated with implementing the transaction because there are additional costs of selecting appropriate providers, negotiating contracts, monitoring the contracts and (possibly) settling any disputes between the two contracting parties.11 The size of these costs depends upon a number of factors, including the extent to which the details of a service (including dimensions of quality) can be specified within a contract.

A study that I undertook following the 1993 health reforms in New Zealand indicated that the transaction costs associated with contracting for surgical services by Regional Health Authorities (RHAs) were not insignificant.7 The contracting process was often protracted and complex, and involved significant investment on the part of the RHAs in terms of defining casemix and estimating costs and prices. While RHAs had the
freedom to choose between public and private providers, the vast majority of RHA (and later Health Funding Authority) contracts for secondary services were with incumbent (i.e. public) providers.

By the year ending 30 June 1999, private hospitals provided only 1.7% (4986) out of a total of 286,660 casemix adjusted surgical discharges funded by the government.\(^{12}\) Considerable progress has been made since that time in defining casemix, in determining costs and quality measures, and in minimising the costs of the contracting process such that the transaction costs of contracting services out have probably declined significantly since the 1990s. Even so, it will be important not to lose sight of the fact that transaction costs must be taken into account when estimating the overall cost of outsourcing services to the private sector.

**Impact on public hospitals**

Another rationale that is often provided to support contracting out to private providers is that spare capacity in the private sector provides an opportunity to reduce the pressure on the public sector. This will only be the case if the demand for elective surgery does not increase as waiting times fall, which seems unlikely.

Contracting out will also only be a potential solution if lack of physical capacity is actually a key source of constraint on public hospitals. In response to a question from the Parliamentary Health Committee in July 2009, the Ministry of Health reported that the operating theatres in 10 of the 26 public hospitals were operating at under 60% capacity: only 5 were operating their theatres at or near to full capacity.\(^{13}\) This suggests that, while contracting out elective procedures may be useful for some DHBs some of the time (as has been occurring to date), for most DHBs it may be less appropriate as a solution for easing the constraint in the longer term.

The National Party’s election manifesto included a plan to build 20 new dedicated elective-surgery theatres over the next 5 years.\(^{1}\) This, together with more efficient use of existing theatre capacity, seems a more appropriate solution for reducing any capacity constraints in public hospitals.

The term “spare capacity” is commonly used to refer to the availability of spare facilities. But facilities are only one of many inputs into the production of surgical services. Services also require other resources, most notably skilled health professionals. In New Zealand, health professionals can allocate their time between the public and private sectors as they choose.

In the case of specialists, of the 2626 reporting the public sector as their primary employment site, 1000 (38%) report that they also have secondary employment in a private hospital or in private practice.\(^{12}\) Similarly, of the 781 reporting that their primary employment is in a private hospital or practice, 310 (40%) report that they also work in a public hospital. If contracting out is used as a means of reducing surgical waiting lists, then surgeons working in both sectors have a perverse incentive to maintain waiting lists in order to increase demand by the DHB for their private services.

A study into physician dual practice in the UK found that allowing physicians to work in both sectors ‘crowds out’ public provision and results in a lower overall level of health care.\(^{14}\) This effect could be mitigated to some extent by increasing public sector
remuneration or by increasing the total supply of physicians. However neither of these seem likely in the current health sector environment in New Zealand. Thus contracting more services out to the private sector could put even greater pressure on the public hospitals if health professionals simply shift from the public to the private sector in response to the increased demand.15

On the other hand, increased opportunities for private sector work may make part-time work in the public sector more attractive to some health professionals and thus reduce, rather than increase, problems of recruitment and retention in the public sector.

Another potential risk associated with increased contracting out of elective services concerns its impact on the clinical and financial viability of public hospitals.16 Private hospitals often do not provide the range of services that are required for treating complex cases or unexpected complications. This means that less complex cases are most likely to be contracted out, leaving public hospitals with the higher cost cases. As the numbers of cases that are contracted out increases, so does the average cost per case in public hospitals. At the same time, safety may be compromised if complexity increases but the volume of work declines.

While the provider selection protocol promulgated by the Minister requires DHBs to consider these potential risks, this does not necessarily mean that it can be readily identified and avoided.

**Equity of access**

Purchasing more elective surgical procedures from private providers could also have implications for equity of access to services. Provincial centres which do not have a private hospital already find it difficult to recruit specialists because there is limited opportunity to supplement their income from private practice.17 Increasing private practice may exacerbate the problem if specialists are encouraged to relocate as opportunities in the private sector increase. This in turn would increase problems of access in the smaller population centres.

Equity would also be compromised if low risk patients were to be treated before high risk patients. This may occur because some private hospitals do not have the support systems in place for more complex cases. Furthermore, because DHBs are now required to meet targets for elective surgery,18 there is a perverse incentive to “pick the low hanging fruit” by treating the easiest (and lowest cost) patients first.

The impact on equity of purchasing more services from private providers will also depend on how prices are set. Many countries (such as the USA and the UK) have chosen to set prices centrally so that public funders pay private providers the same amount for each DRG, regardless of how much it costs them to deliver that DRG. Providers can retain the difference between their cost and the DRG price. This provides a strong incentive to keep their costs down. However it can also provide some incentive for providers to avoid high cost patients, to reduce the intensity of care to these patients, or to reduce other dimensions of service quality.8

An alternative is for DHBs to negotiate prices with individual providers. Apart from increasing transaction costs, this is likely to put upward pressure on prices, especially in areas where there is minimal or no competition.
Conclusion

In summary, the potential benefits associated with DHBs purchasing more elective surgical services from private providers are clear. They include: increasing the number of people treated, reducing public hospital waiting times, improved utilisation of existing spare capacity, greater collaboration between the two sectors and reduced prices.

At the same time the policy carries a number of risks. These include the possibility that the private sector may be more costly than the public sector; the size and nature of any additional transaction costs associated with contracting out; increased problems of retention and recruitment in the public sector workforce if health professionals spend more time working in private practice; possible detrimental effects on the clinical and financial viability of public hospitals, and increased inequalities across population groups.

If the policy is to be successful, the DHBs will need to be alert to these (and other) potential risks. They will also need to be willing and able to mitigate these risks or, if necessary, to withdraw from the process if the risks are considered to outweigh the benefits.

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References: