Comments on the Productivity Commission draft report Inquiry on the performance of public and private hospitals, October 2009

This submission is in two parts. The first part relates to the estimates of comparative costs in the public and private hospitals in Chapter 5. The second relates to some other aspects of the report in Chapters 7.and 8.

Chapter 5 Hospital and Medical Costs.

To allow a comparison of public and private costs for similar cases, the Commission has used the standard methods of classifying cases according to Diagnosis Related Groups (DRGs) and the standard methods of allocating costs to patients, by DRG, in the National; Hospital Data Collection (NHCDC) and in the Hospital Casemix Protocol (HCP). The latter provides, for privately insured patients, data on medical costs and other items that are not paid for directly by the hospitals Supplementary data have also been obtained from external sources and the ABS Private Hospitals Survey in 2006-07. No data have been included for the other 10% of public hospital patients and 20% of private hospital patients (DVA, workers compensation, motor car accident cases and self-funded patients) so that in the present comparisons these are implicitly assumed to be the same.

The basic methodology is well understood and the component costs for the groupings of hospitals by States and Territories in Table 5.2 are generally plausible, except for medical costs in Western Australia which show a very different public- private relativity to the other States and Territories and need checking. However, there are five main areas in which the average total costs per separation in public and private hospitals, as presented, are not comparable; one where some costs should be removed; two where costs should be added; one (capital costs) where the there are no data for private

hospitals that will fit the Commission's methodology, and a final one involving a major conceptual issue with the comparability of all the public and private hospital figures.

The first of these issues is relatively straightforward. Table 5.2 presents estimated costs per separation, by component, for all public and private hospitals, based on the data for those which were covered by the NCHDC collection. Tables 5.3 and 5.4 show that average public and private hospital costs were almost identical in 'very large' and 'large' hospitals and only marginally different in medium sized ones. However in 'small' and 'very small' hospitals, the private sector costs were significantly lower. The tables also show that (1) by region, costs were almost identical in the major cities and inner regional hospitals but in the outer regional areas public hospital costs were about 18% higher than in private hospitals and (2) public hospital costs in 'remote' and 'very remote' regions were, respectively, 26% and 60% higher than for their public counterparts in the cities and larger towns. <u>But there is then a compositional problem in the overall costs contained in Table 5.2</u> There are no private hospitals in remote and very remote areas and no comparison is possible there.

For comparability, remote and very remote hospitals should therefore be removed from the public hospital average figures and I understand that the Commission is considering this. However the comparison for 'inner regional' hospitals must also be treated with scepticism. Table 4.2 shows that, for Australia as a whole, there are only 7 private hospitals in outer regional areas, compared with 93 public ones. The number of private hospitals included in the NHCDC collection must therefore have been very small indeed.

The principle areas where significant costs should be added are allied health and pharmaceuticals. All allied health costs are included in the public hospital accounts. However in the private hospitals most allied health services are provided by professionals in private practice who bill patients directly. However there are no obvious sources of information for that component in private hospitals, so that a qualification to the figures will probably suffice. In the public hospitals, the amount allocated to acute inpatients is unlikely to be very large.

For pharmaceuticals, the public hospital figures include all costs, including the salaries of pharmacists. The private hospitals provide some drugs directly – very expensive drugs for which the Commonwealth provides subsidies to both public and private hospitals under a special program, and non-specific items for which there is an agreement with the private health funds for them to be included in reimbursable hospital fees. The cost of these two components was reported by the AIHW (Health Expenditure Australia, 2006-07, Table 4.15) although only the health fund component was reported for 2007-08.

However patient-specific medications are dispensed by private chemists under the normal PBS rules and are eligible for PBS benefits. Their cost is currently unknown but some information could be obtained from the PBS, because there are PBS arrangements for 'branch' pharmacies to be embedded in some of the larger private hospitals and the value of their dispensing (including dispensing fees and patient co-payments) could presumably be identified.

That leaves the inter-related questions of capital costs and whether the Commission's methodology includes all of the costs of public and private services in a comparable way.

Capital costs.

Capital costs are defined as depreciation plus a notional charge on the use of capital in hospital assets (the UCC charge). For comparative purposes, the Commission has applied the standard government rate of 8% per annum on capital use to both the public and private sectors.

Data on depreciation provisions are known. For public hospitals, they are routinely reported by the State and Territory Health Departments and consolidated in the annual Reports on Governments Services (ROGS), together with the depreciated value of hospital assets on which public hospital UCC charges are based. For private hospitals,

depreciation is identified and included in the operating costs reported by the ABS Private Hospital Surveys, the latest of which was for 2006-07. The missing item is therefore the depreciated value of private hospital capital and the UCC charges that are derived from it.

There is no published information on that. Some information can be obtained from the annual reports of the major for-profit providers, particularly, Ramsay Health Care and Healthscope. Nothing is known for the non-profit hospitals but because there is trading in hospital assets, they are likely to behave in a very similar way. And it is not clear if those data cover all of the assets involved because, in common with most commercial enterprises, assets can be leased or held on various conditions by legal entities other than those which operate the hospitals themselves.

The Commission therefore used several approaches. The information in the draft report combines the depreciation and UCC components, but the Commission has provided me with a breakdown of the separate components. For Australia as a whole, the results were as follows.

Hospital Type	**Capital costs ($mill)**	**Implied depreciated capital value ($ bill)**	**Implied depreciation rates (% per annum)**
Public			
UCC	993.9		
Depreciation	477.0		
Total	1,470.9	12.42	3.84
Private			
UCC	135.3		
Depreciation	221.1		
Total	356.4	1.69	13.08

The issues involved in these estimates are complex and involve some technical detail,

First, the public hospital figures are consistent with a total depreciated value of $21 billion as shown in the 2009 ROGS report with an in-patient allocation of 70%. The figures are also consistent with the surveys I have done in Queensland, Victoria and South Australia and the implied depreciation rate of 3.84% is very similar to the 4% rate I found in those studies.

Second, the estimate for depreciated private hospital capital (derived by dividing the UCC charges by 8%) is consistent with a national depreciated value of $3.5 billion that the Commission derived by using the ABS Perpetual Inventory model. However the implied depreciation rate of 13% per annum is much higher than the rate estimated from a detailed analysis of Ramsay Health care and Healthscope accounts, which averaged only about 6.3% a year. That was still 58% higher than in the public hospitals and there are flaws in the Commission's methodology for comparing capital costs when the two sectors use significantly different depreciation rates. The difference was not nearly as great as the reported data would suggest but it was still substantial.

If follows, then, that either (a) the depreciated value of the private hospital capital stock was considerably higher than both the Commission and the ABS model have estimated, or that the actual rate of return on capital in the private hospital sector is significantly higher than the 8% UCC charge. There is support for the latter in both the prices at which private hospitals change hands - about 8 times EBITDA (earnings before interest, tax, depreciation and amortisation) - and the target income statements of company executives (Ramsay Health Care Annual Report 2008). Either way, some changes need to be made.

However it is not necessary to go through this process at all, because there is a more fundamental issue about how costs in the private hospitals have been measured. The Commission's stated purpose is to compare total costs to the community of treating patients in the public and private hospitals and, subject to some minor amendments in relation to the allocation of private patient medical costs, the public hospital figures are

complete. But that is not true for the private hospitals because the cost to the community of private hospital services is what the hospitals are paid for them, not what the services cost to produce – that is, their revenue, rather than their outlays. That is indisputable. The latest ABS Private Hospitals survey for 2006-07 showed a net operating margin of 7.1% on costs. That amount was their actual return on capital and it would be described as such in any commercial accounting.

Applying the 7.1% rate to the costs which the hospitals themselves incurred - ie, excluding externally- funded medical and prostheses costs – gives a UCC charge component of $147 per casemix weighted separation nationally, $68 per separation more than the amount incorporated in Table 5.2. Although nearly twice the number in the Commission's data, it is not a large adjustment overall. Private hospital capital costs would still be significantly lower than in the public sector. However this approach is more conceptually sound and it solves the dual problems of providing fully comparable costs across the sectors and estimating notional UCC charges when the capital stock in one sector is unknown.

Other issues.

The main non-costing issues relate to the partial indictors of performance in Chapter 7. The chapter lists a number of measures which might serve as indicators of hospital performance. There are two main problems with it. The first relates to what the chapter is intended to describe and measure. The Commission's terms of Reference are included in the introduction to the Draft Report. In relation to the public and private hospitals, they were to consider:

(a) Comparative hospital and medical costs for clinically similar procedures by public and private hospitals, using baseline data to be provided by states and territories under the new National Healthcare Agreement and existing data

provided to the government by private hospitals. The analysis is to take into account the costs of capital, FBT exemptions and other relevant factors,

(b) The rate of hospital acquired infections (which is dealt with in Chapter X) and

(c) other matters relation to informed financial consent and the thresholds for the Medicare ;Levy surcharge which have nothing to do with hospital efficiency.

They therefore relate to the performance of individual hospitals in their clinical work and not to the performance of the public and private hospital systems as a whole, the criteria for which rest on quite different concepts. The public and private hospital sectors serve different populations and work under entirely different conditions. Public hospitals are limited by government budgets in relation to both operating costs and the capital investments that determine their capacity. Private hospitals treat those people who are able and willing to pay, overwhelmingly through private insurance funding, and they raise capital funds from non-government sources. Equity of access is a major criterion for one system but not the other.

However the Commission's web site describes the project as an inquiry into the public and private hospital systems and in the introduction to Chapter 7, the criteria for indicators specify that indicators should be;

> 'hospital-wide – they should reveal the overall performance of hospitals and hospital sectors rather than specific questions of clinical care' (p129)

But system performance is not what the Commission was asked to examine and the sections on hospital access fundamentally confuse the distinction. For example, the section on public hospital emergency waiting times is irrelevant, as are the comments on their efficiency and the quality of their data, because there are no comparators on the private hospital side. Very few emergency services exist in private hospitals, they are essentially private medical practices and the data which are provided for them rely on a tiny sample (only 3).

The section relating to timely access to elective surgery is similarly confused. Apart from the fact that neither booking lists or delays in accessing treatment – measured from the time between a decision being made to admit and the admission taking place – are available for private hospital patients, waiting times in the public hospitals are not an indicator of hospital performance per se.. They reflect the physical and human resources that are available to them, which are determined by government budgets and government policy. Government policy and the adequacy of public hospital funding were not amongst the matters that the Commission was commissioned to review. References to waiting times and waiting lists should not be included in this report at all.

And that is equally true of the related statistics of bed occupancy rates. The chapter presents data on relative occupancy rates, defined as actual occupancy rates divided by a benchmark or recommended rate of 85%. Although it is impossible to know exactly what the figures mean (because they relate to the public and private hospital systems as a whole and the relative importance of same-day admissions varies considerably between them) they might be useful in indicating why delays in admission occur. However for the public hospitals the bed capacity to which they relate is again determined by government decisions and is therefore an aspect of the funding system, which is not what the Commission was requested to examine.

The second problem relates to the other indicators discussed. There are several – accreditation, unplanned readmission rates and the rate of adverse events – which are potential indicators of the quality of care, unrelated to systemic features outside the hospitals' control and they should be included in any performance comparison as long as reliable data are available. It would also be useful to examine the efficiency with which the various inputs to hospital care are used – labour, capital etc – but the data presented are only first attempts to do so. Even the in-patient/outpatient split has not been made. The basic problem is that whereas the cost estimates in Chapter 5 have been based on a complex and relatively sophisticated method of case classification and cost allocation developed over many years, the statistics in Chapter 7 are broad and un-standardised for casemix differences and any other factors that affect the needs of

patients. Even the relative stay index, which is standardized for casemix differences, shows no more than that the two hospital systems do best at what they do most – medical cases in the public sector, surgical cases in the private one.

The Commission has foreshadowed more work at the individual hospital level, but it is hard to see what additional and useful information that would provide. It has also proposed that work be done on mortality rates. The crude mortality differences are clear. The proportion of public hospital patients who die there is three times the proportion in private hospitals. Casemix standardisation might remove some of the difference, but it is very likely to show that for most of the hospital patients who die, the DRG classification, for that particular admission, is likely to be medical, not surgical which,would, in turn, mean that the differences between the sectors would again represent no more than the different mix of patients that they treat.

My strong recommendation would therefore be that Chapter 7 should be shortened considerably by:

(a) removing the indicators for emergency department services, elective surgery access and bed occupancy rates ,which are either not comparable across the sectors or reflect systemic differences in resource availability rather than the efficiency of the hospitals themselves.

(b) limiting the discussion of other indicators to outlining what have been commonly used, what might be desirable and possible, how they might be applied and what broad conclusions might be drawn from the currently available information. However, calculations based on general and un-standardised data should not be published because it is confusing and potentially misleading to be presented with detailed tabulations and conclusions, only to learn that these might be incorrect because of interactive factors (which the draft report correctly acknowledges), methodological problems or limitations in the data.

That would require re-writing but it would greatly clarify the presentation.

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Multivariate analysis

The Commission has proposed a multivariate analysis of factors affecting hospital cost and efficiency, using hospital level data from all States and Territories plus data from a sample of 130 private hospitals which account for about half of all private hospital admissions. Multivariate analysis is a complex and sophisticated statistical technigue which has the potential to identify factors outside the hospitals' control which bear upon their cost. It should therefore be tried. There have been problems with interpreting results when the factors are presented in different ways. The Commission has therefore appointed two academic referees with experience in its use and that is very desirable as a quality check, as is a proposed workshop to review the results before final publication. However very few, if any, of the hospital industry participants will have any familiarity with the process and the results will need to be very clearly explained.

However there is one general point. At the October workshop in Canberra, it was explained that, for technical reasons, medical costs could not be included in the analysis. That would remove 18% of total public hospital costs per separation, but 32% of costs in the private sector. It is possible, then, that the conclusions about relative efficiency at the hospital level could be significantly different to those presented in Chapter 5. If that is true, how would such a difference be explained and justified?

The comments set out here are not advanced as criticisms, only proposals that might lead to better and more understandable results. The Commission's report is a very important one on a difficult and complex subject. It is to be congratulated on what has been achieved in a very short time.

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