AHSA Submission to Productivity Commission Study – Performance of Public and Private Hospital Systems

1. Introduction:

The Australian Health Service Alliance (AHSA) is a company that is owned by twenty seven small and medium sized health funds. It provides a number of outsourced services to these funds including negotiations of contracts with hospitals, data services and analysis of hospital and industry issues. As such it has a keen interest in the matters being considered by the Productivity Commission in its Study into the Performance of Public and Private Hospital Systems (hereafter the Study)

AHSA has read the June 2009 Issues Paper (hereafter the Paper) related to the Study. In addition one of its senior staff members (Dr Brian Hanning – AHSA Medical Director) participated in the initial Study Roundtable held in Canberra on 30th June 2009. The comments which follow are in general based on the order in which they are raised in the Study Issues paper and have been influenced by the discussions held at the Roundtable.

AHSA is of the opinion that it is important that all matters addressed in the Study should be based on data which is of both comprehensive and high quality. In addition the analytical tools used should be robust. If satisfactory data is unavailable it is appropriate to note this and suggest future actions to remedy this situation but it is inappropriate to analyze incomplete or questionable data other than as a means of improving data quality by understanding then remedying deficiencies. The issues being studied are very complex and AHSA will be pleased to offer any assistance in any area where the Commission chooses to seek our views or utilize the experience and expertise of AHSA staff.

2. Comments on Section 4 – Partial Indicators of Performance:

    a. Hospital and Medical costs for clinically similar procedures (Pages 9 to 12):

This is clearly a major if not the major issue the Study will address. It will inevitably be highly controversial. Whatever outcome is reached will leave some parties dissatisfied. AHSA wishes to offer the following suggestions which it believes will contribute to a robust study and will significantly reduce the extent of the criticisms which will inevitably occur after the findings of the Study are released.

1. AHSA would suggest that no comparisons of procedures be undertaken and instead the focus be one of comparisons between DRGs. This is in part because the principal procedure in a case is only one of the factors determining the cost of care. As an example consider the costs of a cholecystectomy (gall bladder removal) in two cases. One is a fit healthy thirty five year old the other is seventy five with diabetes, heart disease, and has a degree of dementia. These are clearly quite different cases with different cost implications despite the procedure being the same. DRGs take into account significant differences between cases where the procedure is similar but associated comorbities and complications vary markedly. Simply studying the procedure undertaken in isolation will not. The second reason there is no procedure undertaken in many medical admissions e.g. cases of asthma, stroke, heart failure among many possible examples. Excluding medical cases from the study is inappropriate.

2. AHSA agrees that the DRG version used should be the latest available version of ARDRGv5

3. AHSA disagrees that study should limit itself to the twenty DRGs outlined in Table 4 on page 12 of the paper. AHSA is of the view that all relevant DRGs should be considered and this is what it does in its own benchmarking of hospitals. Given the power of modern Personal Computers the majority of such work results from ensuring a valid technique is used to study the first DRG under consideration. Once the appropriate algorithm has been developed for one DRG it makes little difference whether it is extended to twenty or over six hundred DRGs. As a further practical consideration it also ensures that any potential controversy over the selection of a limited number of DRGs is avoided. Not only is there no valid reason for limiting the study to 20 DRGs, but even worse the results of the study may be incorrectly taken as being representative of all valid DRGs.

4. There are some DRGs which AHSA suggests be excluded from the study:

    - There is a number of non-theatre error DRGs and it is not possible to determine what sort of cases has been treated in these DRGs due to data issues.
    - Only DRGs which occur in a predetermined number of cases in both the public and private sectors should be included. There are some DRGs which because of their highly complex nature occur only in the public sector e.g. liver and heart transplants. These should be excluded. In addition DRGs where there are few cases in one or both of the two sectors should be excluded. What the size of the minimum case number should be is open to discussion but it should be at least thirty to prevent issues of the statistical validity of the comparison being raised. However it should not be particularly large as this will exclude a number of DRGs and give rise to concerns of biases being created. AHSA's view is that if there are thirty or more cases in both sectors the DRG should be included
    - AHSA would exclude Psychiatric and Drug and alcohol DRGs in the study. These are the DRGs whose first alpha character is U or V. This is in part because the robustness of these DRGs is open to question. Few if any funders in Australia pay for psychiatric care by DRG. Unfortunately the development of a robust classification for psychiatric cases does not appear to be imminent. A second issue is the manner in which psychiatric care is funded. In many jurisdictions including some private providers the payment is based on the population being cared for not just the cost on inpatient admissions. Much of the care and the costs related to providing such care are community rather than hospitals based. Given the combination of lack of robust classification systems and very different models of paying for care in different jurisdictions AHSA is of the opinion these two groups of DRGs should be excluded from the Study
    - Rehabilitation DRGs (first three characters Z60) are heterogeneous. They do not classify such cases well and are not an appropriate basis to compare the performance of hospitals within the same sector let alone between sectors. The AN-SNAP classification developed by the University of Wollongong is a much more robust classification system and would in principle offer a sound basis for comparison. However in practice AHSA has noted major issues with the completeness and accuracy of hospital AN-SNAP data and is aware that other private sector providers have experienced similar problems. If these issues cannot be appropriately and fully addressed, a formidable task given

the limited time available to the Commission, rehabilitation cases should be excluded from the comparison.

- It is noted that the above comments imply that that the study in practice may well be limited to acute care type (medical, surgical and obstetric) DRGs with at least thirty cases in both sectors. AHSA suggests that this is appropriate given the need to ensure what is studied is based on sound data, a robust classification system, and is statistically sensible. All the exclusions suggested are eminently defensible for the reasons outlined and to include such cases would expose the Commission to criticism which difficult to refute. The DRGs suggested include most of the cases and are responsible for most of the costs in both sectors.

b. Data Sources (Pages 13 to 14):

1. Introductory Comments:

It was noted in Slide 8 presented at the June 30th roundtable that the Commission intended to divide the overall costs of an episode into three components – Hospital, Medical including Pathology and imaging and others including, Prostheses, Pharmaceuticals etc. AHSA agrees that a division of cost into these broad components is appropriate but would do so in a somewhat different way.

It is suggested that Diagnostic (Pathology and Imaging) be included in the Medical category as in the private sector these costs are a matter between the patient and the relevant medical specialist. In our view this relationship has marked similarities to the relationship between the patient and the primary treating clinician. Including all medical related costs under the one broad category is appropriate.

In saying this AHSA is clearly of the view that the study should focus on costs not charges although in some areas of cost the two are identical. It is also worth reiterating that there are significant structural differences between the public and private sectors which necessitate the proposed division of costs if meaningful comparisons are to be made.

Private hospital charges and underlying costs are variably related even after the issue of profit is excluded. This is because there are a variety of payment models in the private sector and while some base payment on recent benchmarked costs as expressed in the National Hospital Cost Data Collection – Private Sector (hereafter NHCDC) others are based on historical payments which have never and are still not well related to cost at the case level. To use hospital charges rather than hospital costs will seriously detract from the worth of the Study.

Doctor costs in the private sector are in general a matter between the patient and the doctors involved in the care. This applies to doctors involved in such care whether they are the primary treating physician or surgeon, or other medical practitioners involved in care such as anesthetists, pathologists and radiologists. These costs are not a hospital cost in the private sector and should be treated separately from hospital costs. In the public sector the medical costs of public patients are included in the funding for public patients. To ensure comparability medical costs in the public sector should be distinguished and separated from other hospital costs.

Prostheses costs have a different basis in the public and private sector. In the public sector they are included in hospital funding. In the private sector they are

in effect negotiated separately at the industry level and the hospitals is simply the conduit by which prostheses are supplied to patients by their treating doctor. Like medical costs prostheses costs should be distinguished from and separated from other hospital costs to ensure comparability of costs which are under hospital control in both sectors.

2. NHCDC data:

AHSA regards the NHCDC as the only satisfactory source of hospital cost as opposed to charge data. In saying so it notes there have been years when there have been no such study or years when the study has been unsatisfactory and inappropriate to use. The latest available study (Round 11) based on 2006-7 data is in AHSA's view an appropriate basis to derive cost data. We are of this opinion for a number of reasons including the large sample size (over 1.5 million private sector cases), the use of ARDRGv5 with up to data service weights upon which cost allocation can be made and its prostheses charges being closely correlated with internal AHSA prostheses data.

This latter point reflects the view of AHSA that if prostheses costs, a notoriously difficult cost to capture accurately, are accurate the whole study is likely to be sound. If prostheses costs are inaccurate as they have been in some earlier studies then not only will theatre and prostheses cost allocations be inaccurate but there is a basis for well based concern that other cost allocations may be inaccurate e.g. as in the Round 6 NHCDC study where significant theatre costs were allocated to non-procedural DRGs.

AHSA is of the view that Round 11 ARDRGv5 is a satisfactory basis for deriving weights for its cost based payment. There is currently no alternative national hospital cost based study available and it remains to be seen whether the Round 12 NHCDC study currently underway will be satisfactory and completed quickly enough to fit within the Commission's time frame. The limited information available to AHSA suggests that it will not be available for use in this Study unless the time to complete the Study is significantly extended.

AHSA therefore suggests the NHCDC be used as the data source for hospital costs. Given it is structured into cost buckets it will not be difficult to partition the data into the three six? broad groups suggested earlier and exclude any costs not relevant to inpatient care in both sectors thus ensuring comparability. The NHCDC data enables information on hospital and prostheses costs to be derived. Medical costs in the private sector cannot de derived from the NHCDC as such charges are not processed through hospitals. More comments on the medical charge issue will follow.

There are three other issues which the Commission might like to consider that relate to this topic. The first is whether it should recommend that it be mandatory for all hospital or all hospitals other than the very small to contribute to the NHCDC. This would ensure the issue of sample size which has clouded some individual studies does not arise in the future.

The second is whether the NDCDC – private sector should continue to be conducted annually. AHSA is strongly of the view this should happen and notes would happened when no private Sector study was conducted in Round 8. There was a loss of internal hospital expertise and private hospital interest in the NHCDC and it may well be that these issues contributed to the suppression of the Round 9 private sector study. While there was no Round 10 private sector study DHOA made strenuous efforts to ensure a sound methodology and high participation rate in Round 11, a

study AHSA regards as satisfactory. While there is currently a Round 12 study underway it may be appropriate for the Commission to make an explicit that these studies continue on an annual basis for both the public and private sectors least any move be made to return to biannual studies in the private sector.

The third is the difference in prostheses costs between the public and private sectors. They are in general distinctly higher in the private sector for a given prostheses item and this is not simply a matter of volume as sometimes is suggested e.g. a perusal of the Australian Joint Replacement Registry web site will show that there are significantly more hip and knee replacement procedures in the private sector. The Commission might like to consider whether it is appropriate to accurately quantify this difference, and whether what is in effect a cost subsidy from the private sector to the public sector is appropriate and if not how it should be remedied.

3. HCP Data:

HCP data is the only source of doctor charges in the private sector. The data quality has sometimes variable but at least in recent years it has generally been adequate. HCP data could also be used to determine prostheses data but AHSA has preferred to use the NHCDC data internally given it is a study specifically based on cost not charge and at times the prostheses charges in HCP are inflated by a prostheses handling fee which is in effect a service charge by hospitals for being the conduit by which patients receive prostheses by suppliers.

AHSA anticipates doctor charges will be higher in the private sector but would note that doctor costs in the public sector are likely to be deflated given that doctors perform significant amounts of unpaid overtime in the public sector. In addition many specialists regard their public hospital work as a public obligation and accept remuneration rates well below what they would achieve if the same time was spent in private practice. This is compensated for by charging higher fees for private patients. This practice which in effect subsidizes the public sector by facilitating specialist recruitment at relatively low salary rates dependent on the ability to charge the current level of fees in the private sector. If this ability was impaired there are significant risks for the public sector in that medical specialists would seek significant salary increases before working in that sector or move overseas given Australian specialists are very employable internationally.

HCP data should not be use in relation to hospitals as it contains charge data not cost data. This is for reasons already discussed earlier in this submission. A further issue with HCP data is that the data in relation to private patients in public hospitals frequently does not contain DRG information – this depends on the state involved. For this reason the Commission may not be able to access nation wide data related to medical charges for private patients in public hospitals by DRG. Similar comments apply in relation other charges for private patients in public hospitals.

Given these issues AHSA suggests there is a limited role for HCP data in the Study and that should be restricted to medical charges. The Commission might consider using this as an opportunity to ensure DRG information is provided for private patients in public hospitals in all states.

c. Proposed Disaggregations (Pages 14 to 17)

AHSA regards the grouping of hospitals by jurisdiction and regions as appropriate although it is also notes when these groupings are further divided into peer groups there may be some groups with very small numbers of hospitals. Accordingly AHSA

suggests the proposed groupings be regard as tentative and subject to review when the Study is well advanced.

AHSA has reservations about the division into peer groups outlined in Table 5 on page 15. It should be remembered that many acute hospitals contain psychiatric units e.g. among many examples the Victorian hospitals Royal Melbourne and Alfred (public) and Northpark (private). Care is needed when classifying hospitals that hospitals with multiple care type functions are recognized and their costs and output appropriately allocated.

In addition AHSA has reservations about the proposed number of separations. This is because a number of hospitals will have many day case admissions e.g. for dialysis, which as things stand will be included in their total. The major factor driving costs is overnight cases and it is possible that basing peer groups on total cases will lead to hospitals with a similar number of overnight separations being in different peer groups. As an alternative AHSA suggests the commission allocate peer group[s based on overnight separations only and halves the proposed number of separations determining allocation into the various peer groups outlined in Table 5.

The FBT issue may be more complex than trying to remove these costs from for profit private hospitals to ensure comparability. The original reason hospitals introduced employment packages utilizing this exemption in the mid 1990s were as a recruitment tool – in effect there was an increase in staff after tax income without an increase in hospital cost. Whether this has now affected the rates of pay in for profit private hospitals is a question the Commission may consider to investigating. Has the recent nurse shortage lead to some for profit private hospitals paying higher wages to ensure after tax income are comparable to nurses working in not for profit hospitals? AHSA is not able to answer this question but suggests it is one that the Commission considers raising with for profit private hospitals. If there is information confirming that the FBT exemption for public and non-profit private hospitals has in effect inflated wages in for profit private hospitals an appropriate adjustment should be made.

Ideally depreciation would be included in the costs for both sectors but it is far from certain this cost is completely captured in all jurisdictions for public hospitals. If it cannot be verified with a reasonable degree of certainty that this is the case then it should be excluded to ensure comparability by exclusion of the NHCDC cost bucket relating to depreciation from the analysis.

There is also an NHCDC cost bucket for interest payments. In the private sector this arises from borrowing to undertake capital works. AHSA is unaware as to whether significant borrowing is being undertaken to specifically fund public hospital capital works but if this is the case it should be specifically brought into account if this is possible or this cost bucket be excluded if it is not.

d. Rate of hospital acquired infections (pages 17 to 19):

While hospital acquired infections are an important indicator of quality they must be compiled an assessed carefully least they mislead. Some common problems include comparing hospitals with significantly different casemix, considering so many infection indicators that any analysis is too granular and drawing conclusions that are not statistically robust. On top of this there what is potentially the most confounding influence of all – is the relevant data complete and accurate?

AHSA would regard the Australian Commission on Safety and Quality in Health Care (ACSQHC) and the Australian Council on Health Care Standards as important sources of authoritative information on these matters. It may be that amalgamating some of the existing collections e.g. a combined joint replacement infection rate rather than separate rates of hip and knee replacement would provide a better basis for comparison. Similar comments may well apply in regard other surgical disciplines. The comparison should probably be restricted to infection indicators which are widely applicable although in doing so it is acknowledged some indicators related to important but uncommon infections will not be included. In addition the Commission may decide it is appropriate to recommend that all hospitals contribute to the AHSA Clinical Indicator Program (CIP) i.e. it no longer be voluntary.

e. Other relevant Indicators (Pages 19 to 23):

This is a further complex area where considerable care is needed to ensure like is being compared with like. It should firstly be acknowledged that to expect to attain a rate of zero problems with these indicators is unrealistic. It also needs to be acknowledged there are significant issues related to the completeness and accuracy of data, that casemix is an important determinant of rates in many indicators and that the demography of patients treated can affect the rates of other indicators – particularly the age profile. Some indicators are based on rare events and the statistics involved can be difficult to interpret. It is suggested the Commission avoid the use of such indicators in its comparisons.

Other relevant performance indicators may be those that would provide comparison between hospital performance and efficiency by indicators that focus on conditions for which treatments are supported by solid evidence of best practice. Internationally (and in Australia) such indicators have been implemented and they measure the percentage of appropriate patients, receiving a specifically determined often low cost, evidence-based therapy.

Examples of conditions/procedures that could be considered for national reporting are:

- Acute myocardial infarction
- Pneumonia
- Congestive Heart Failure
- Prevention of Venous Thromboembolism (DVT)
- Surgical Antibiotic Prophylaxis

1. Unplanned admissions and returns

Unplanned admissions within 28 days can be a good indicator but it also illustrates some of the complexities involved in comparing indicators between hospitals. The first is to ensure that the unplanned readmission refers to a complication of a previous admission within the last 28 days. This is not the same thing as readmission for recrudescence of a chronic condition within 28 days of discharge of the previous admission related to that condition.

If an asthmatic spends a period in hospital, goes home well and stable but is readmitted with a further asthma attack it is an unplanned readmission but not related to the previous admission but rather to a recurrence of a chronic condition. If a patient with a hip replacement is readmitted within 28 days because of a wound infection this is clearly an unplanned readmission. There are also cases when it will be difficult to

determine if the readmission is related or not. A further consideration is casemix – complex cases, elderly patients and chronic conditions are more likely to lead to readmission. Casemix is thus a further factor which affects readmission rates. Yet another potential confounding factor is whether the patient is readmitted to the same hospitals as the first admission or a second hospital. Data on this point may not be easily accessed particularly because if the complication is serious it may need admission to a major hospital because the original admission was to a hospital where such sophisticated care is unavailable.

Similar comments apply in regard to unplanned return to theatre and ICU. There rates will never be zero and they will be affected by the casemix and demography of a given hospital. If compiled appropriately and interpreted in light of all relevant factors these are good indicators if this is not the case they may well mislead rather than inform

2. Selected Adverse Events:

Broadly similar comments apply in regard to such events as apply to unplanned readmissions and returns. Data issues and casemix are important and care is needed to avoid basing comparisons on rare events irrespective of their importance due to the difficulty of satisfactorily analyzing difference in the frequency of such events. The ACHS Clinical Indicator Program (CIP) information may be the most helpful set of data currently available but even that should be interpreted carefully.

3. Accreditation:

It is rare for a hospital to fail accreditation for any period of time. In the private sector such a hospital would be unable to enter into contracts with most or all funders. For this reason it can be anticipated virtually all hospitals will be accredited in both the public and private sectors and this will not be a helpful basis upon which to compare the two sectors.

4. Access and Responsiveness:

Patient satisfaction surveys are used in both sectors but their format differs within each sector let alone between the two sectors. Very careful interpretation of both the survey questions and their responses is necessary before it can be determined whether meaningful comparisons can be made.

Access is an area where one can anticipate the private sector will produce better results than the public sector. This because in the private sector funding is uncapped which means there is an incentive and additional resources to facilitate the treatment of additional patients. In the public sector funding and throughput are capped by finite levels of funding and this will reduce access to public hospitals. The comparison and anticipated differences are thus primarily driven not by the hospitals but the differing funding conditions in the two sectors.

5. Relative stay index

LOS is a factor which contributes to hospital efficiency. There are other factors such as costs of theatre and other special suites and the cost per day as opposed to the number of days which also drive overall cost. For such comparisons to be meaningful they must be done on a casemix adjusted basis and care must be taken to distinguish same day cases and one night cases in the same DRG as both are conventionally given the same LOS – 1 day.

f. Multivariate Analysis (Pages 23 to 26)

This is a particularly complex piece of work. In addition to the factors mentioned other factors which may well affect hospital efficiency include its size (and there are likely to be diseconomies of scale with both very small and very large hospitals) and the number of types of clinical disciplines it is active in. A small hospital may well be highly efficient if it works in just one or two clinical disciplines but is much more likely to be inefficient if it attempts to work in a number of disciplines

Source of patients may be a factor. If a city hospital takes in significant numbers of country patients as large and sophisticated hospitals do in both the public and private sectors, discharge arrangements will be complicated due to making arrangements for travel and follow up care which will inevitably take longer and be more complex than similar cases who are city based.

g. Informed Financial Consent (Pages 26 to 29):

The only source of data AHSA is aware of is the IPSOS survey and if that proves unsuitable it is unrealistic to expect this topic to be included. In general AHSA has previously been impressed by the quality of IPSOS' work and unless factors emerge which clearly indicate there are compelling reasons to the contrary it should be used.

There is one issue however which merits consideration. Is IFC really appropriate in the context of an emergency as opposed to an elective admission? AHSA is of the view that when a medical emergency exists it is appropriate to manage that emergency expeditiously rather than delay treatment to discuss issues related to IFC. Similar considerations apply when a second specialist is called in to deal with an emergency situation that has arisen unexpectedly in an elective admission e.g. if a cardiologist is called into assess a patient with chest pain after an elective surgery case. While IFC in relation to the surgeon, assistant and anesthetist is reasonable in such a case it is not reasonable or appropriate in relation to the cardiologist's attendance.

It is notable that in Table 7 on page 29 the group with the lowest rate of IFC was pediatricians. This is not surprising given that the need for a pediatrician in a given situation is unpredictable; relatively infrequent but when needed they are usually needed urgently. Similar comments apply to anesthetists in the context of urgent or elective surgery. It may not be easy to precisely quantify this effect but its existence should at least be noted.

h. Casemix Differences and Comparisons between the Sectors:

The casemix in the public and private sectors differs so to simply look at the average cost per case or cost by selected DRGs is inappropriate. As suggested earlier all acute DRGs with perhaps at least thirty cases in both sectors should be considered. The cost of hospital costs for each DRG should include only those NHCDC cost buckets which are comparable and therefore relevant to the comparison between the two sectors.

The total relevant cost in a given sector is therefore

$\sum Ni*Ai$

Where Ni is the number of cases in and Ai is the average cost per case for DRGi in that sector

If the average cost for the same DRG in the other sector is Bi then the total cost for the sector would have been ∑Ni*Bi. If ∑Ni*Ai is less than ∑Ni*Bi the sector in which the average costs are Ai is more efficient on a casemix adjusted basis in relation to comparable hospital costs. If the converse is true then the sector where the average cost is Bi is the more efficient. The NHCDC allow such comparisons to be made.

3. Concluding Comments:

The Commission has been given a large and complex task. AHSA remains willing to provide whatever assistance it can to the Commission to assist them in this task. In saying this it is strongly recommended, as outlined in the above paper that:

a. The comparison of hospital costs between the two sectors be made on a DRG standardized basis for all relevant DRGs with an acceptable minimum case volume using NHCDC data. Only those cost buckets which are relevant to both sectors and contain robust data should be included in the comparison.
b. Comparing quality of performance is highly relevant but care should be taken to consider only indicators which are clinically sound, based on robust data and are statistically well based

AHSA 9 July 2009