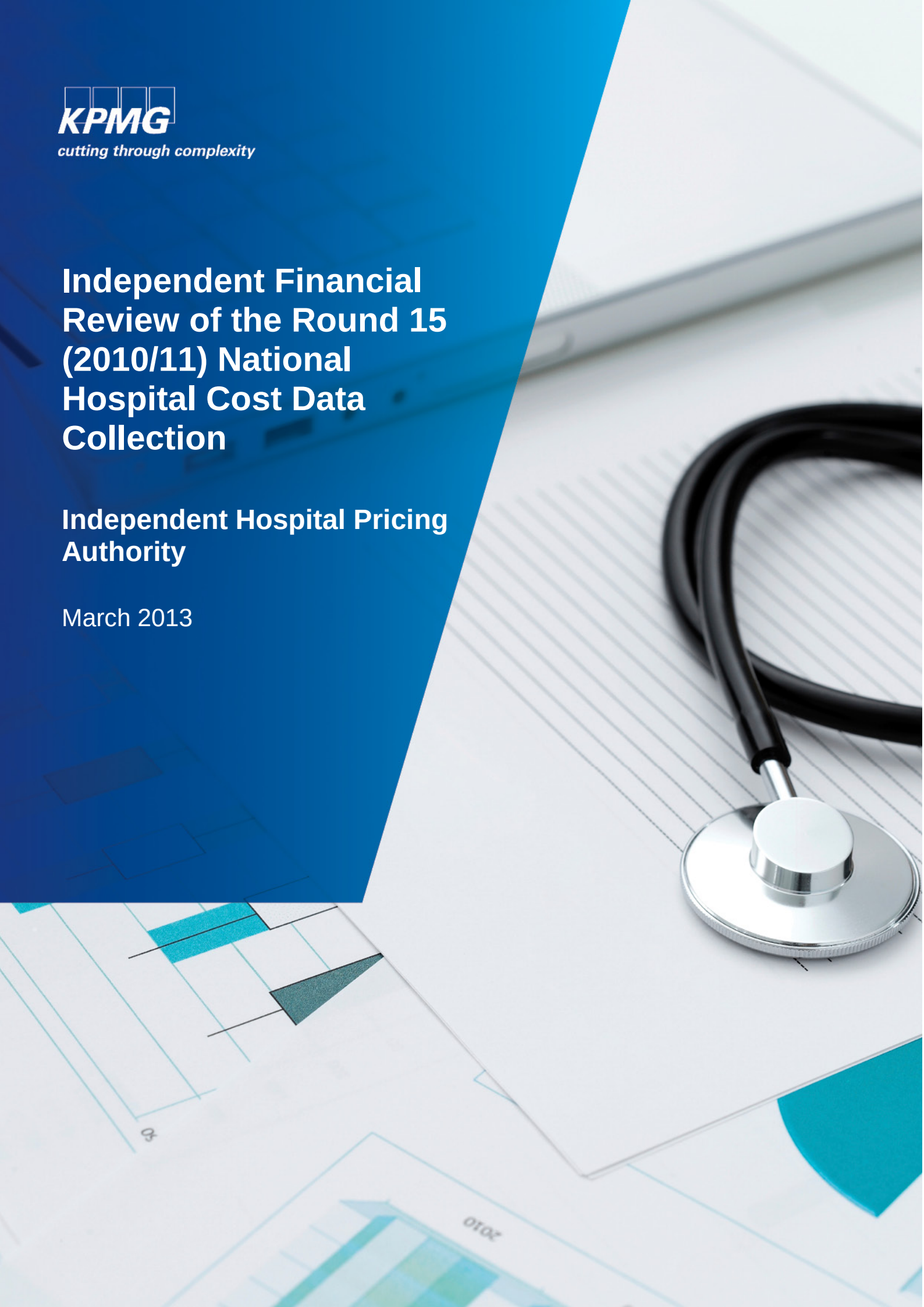
KPMG
cutting through complexity

Independent Financial Review of the Round 15 (2010/11) National Hospital Cost Data Collection

Independent Hospital Pricing Authority

March 2013



Inherent Limitations

This report has been prepared as outlined in the Scope Section. The services provided in connection with this engagement comprise an advisory engagement, which is not subject to assurance or other standards issued by the Australian Auditing and Assurance Standards Board and, consequently no opinions or conclusions intended to convey assurance have been expressed.

The findings in this report are based on a qualitative study and the reported results reflect a perception of the Round 15 National Hospital Cost Data Collection (NHCDC) but only to the extent of the sample surveyed, being those hospitals selected. Any projection to the wider Round 15 NHCDC submissions is subject to the level of bias in the method of sample selection.

No warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by, State and Territory representatives consulted as part of the process.

KPMG have indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted within the report.

KPMG is under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form.

The findings in this report have been formed on the above basis.

Third Party Reliance

This report is solely for the purpose set out in the Scope Section and for the Independent Hospital Pricing Authority's information, and is not to be used for any other purpose or distributed to any other party without KPMG's prior written consent.

This report has been prepared at the request of the Independent Hospital Pricing Authority in accordance with the terms of KPMG's contract dated 10 July 2012. Other than our responsibility to the Independent Hospital Pricing Authority, neither KPMG nor any member or employee of KPMG undertakes responsibility arising in any way from reliance placed by a third party on this report. Any reliance placed is that party's sole responsibility.

Executive summary

Background

The National Hospital Cost Data Collection (NHCDC) is the primary data collection mechanism that the Independent Hospital Pricing Authority (IHPA) relies on to calculate the national efficient price and Activity Based Funding Unit Cost Weights used for the funding of public hospital services from 1 July 2012.

Given the reliance on the NHCDC, the IHPA requested KPMG to perform an independent financial review of the costing processes of a sample of participating Round 15 NHCDC (2010/11) state and territory hospitals.

Summary of findings

KPMG found that jurisdictions had more comprehensive documentation in support of included and excluded costs, and were better able to explain the rationale behind adjustments compared to Round 14. Notwithstanding, where there had been recent changes in costing staff, there were generally difficulties in determining the basis of adjustments and / or agreeing totals to supporting schedules or the general ledger.

We noted a number of matters that should be considered for future rounds, with a view to either greater standardisation of practice or to ensure NHCDC processes continue to take into consideration how jurisdictions perform their costing. These matters are noted in more detail in Section 4, but in summary relate to:

- Hospital-level financial data – financial data is not recorded at hospital-level; while costing systems have been configured to produce hospital-level cost data, it can be difficult and time consuming to produce reconciliations and supporting schedules at hospital-level. Future costing system implementations appear more likely to be based on area- or state/territory-level financial data, as the costing systems can efficiently split higher-level costs to hospital-level cost data.
- Work-in-progress – jurisdictions generally excluded work-in-progress, however some have processes in place to cost (and include) work-in-progress; others are uncertain what approach they would use to cost work-in-progress if such is required to be included in future rounds.
- Overhead allocation to out-of-scope activities – the point at which the costs for out-of-scope activities are excluded can impact on whether overheads are allocated across those costs as well as in-scope activities, notwithstanding that in some jurisdictions, an allocation of overhead to out-of-scope activities was noted. Whilst it may be the case that certain out-of-scope activities would not use overhead services to the same extent as in-scope activities, further consistency in the allocation of overhead between in-scope and out-of-scope activities would provide more standardised costing data.
- Allocation of patient-related costs with no linked activity data – our enquiries indicated that jurisdictions generally adopted one of two methods for treating this category of costs. The first method resulted in the unlinked costs being distributed

across patients within the same cohort, whereas the alternative method resulted in the costs being allocated to a non-hospital product or virtual product before being excluded from the NHCDC submission. Based on the information provided it was too difficult to quantify this category of costs.

- NHCDC data processing – although there is no requirement to produce a report to explain adjustments made to NHCDC data as part of the data submission processing phase, in future rounds it would increase transparency for IHPA to ensure that changes made to a jurisdiction's submission by the party processing the data are documented and maintained on file.

Contents

1 Scope

KPMG was requested to undertake an independent financial review of a sample of state and territory hospitals that supplied data to the Round 15 (2010/11) NHCDC. For the sample of hospital submissions reviewed, KPMG were required to:

- Assess the accuracy and completeness of the hospital reconciliations provided by reference to financial data and costing system data; and
- Assess compliance with the following Version 2 Australian Hospital Patient Costing Standards (AHPCS):
  - SCP1.003 – *Scope of hospital activity*
  - SCP2.002 – *Expenditure in scope*
  - SCP2A.002 – *Teaching costs*
  - SCP2B.001 – *Research costs*
  - COST 3.003 – *Final cost allocation.*

2 Approach

In order to assess compliance with the identified AHPCS, KPMG developed a series of review procedures. These procedures sought to identify information about:

- The completeness and accuracy of financial information entered into jurisdiction costing systems
- The allocation methods used to calculate teaching and research costs
- Whether the *Expenditure in Scope* cost standard was applied
- The quantity of unmatched or unlinked costs that were excluded from NHCDC submissions for the selected hospitals because they could not be matched to a patient, and
- The final cost allocation methods used within each costing system.

The procedures performed were limited to enquiries of staff in the relevant state/territory department, area health service and / or hospital, and tracing data/costs to supporting schedules, extracts of the relevant general ledger, associated audited financial statements or costing files. This review was not an audit, and therefore our procedures did not extend to reviewing the general ledger or verifying included and excluded costs and activity to source documentation, systems or data.

The procedures applied during our reviews are detailed in Appendix A of this report. KPMG notes that, as agreed with IHPA management, during the course of the engagement, a procedure related to final cost allocation methods was not performed.

3 Hospitals reviewed

The sampling approach applied to select hospitals for review was as follows:

- Jurisdictions were classified into two tiers:
  - Tier 1 – New South Wales, Queensland, South Australia, Victoria and Western Australia
  - Tier 2 – Australian Capital Territory, Northern Territory and Tasmania.
- For Tier 1 jurisdictions, two to three hospitals were reviewed, and for Tier 2 jurisdictions, one hospital was reviewed.
- For each jurisdiction, initially IHPA nominated a pool of hospitals and provided this to KPMG for KPMG to randomly identify a sample of hospitals. Following further consultation with the jurisdictions, the jurisdictions proposed the sample of hospitals based on staff availability and other factors.

The 16 hospitals selected and reviewed were:

New South Wales	***Victoria***
St George Hospital	Royal Melbourne Hospital
John Hunter Hospital	Royal Women's Hospital
Wagga Wagga Base Hospital	The Alfred Hospital
Queensland	***Western Australia***
Gold Coast Hospital	King Edward Memorial Hospital
Rockhampton Hospital	Fremantle Hospital
Nambour Hospital	Rockingham-Kwinana Hospital
South Australia	***Tasmania***
Lyell McEwin Hospital	Royal Hobart Hospital
Women's and Children's Hospital	
Northern Territory	***Australian Capital Territory***
Royal Darwin Hospital	Did not participate

4 General observations

A number of general observations have been noted below by KPMG from our enquiries throughout the course of the jurisdictional reviews. Implications and recommendations have been identified where relevant.

4.1 Reconciliations

Reconciliations to support Round 15 NHCDC submissions were prepared by all jurisdictions. The following observations were noted:

- All jurisdictions submitted reconciliations using the suggested template, with one exception.
- General ledger extracts uploaded to costing systems were able to be traced to audited financial statements, with three exceptions. For South Australia, audited financial statements had not been finalised for the parent entity of one selected hospital. For Tasmania, a schedule was not provided to allow for the expenditure of hospitals to be agreed in total to the departmental audited statements. For Queensland, a variance was identified between the audited statements and the general ledger extract (approximately 2%).
- Costing system outputs could be traced to NHCDC submissions for all selected hospitals; adjusting items were identified in the reconciliations. Some small variances were identified, and are noted in the specific hospital findings for each jurisdiction.
- The quality and level of documentation to support the reconciliations was reasonable. Jurisdictions were generally able to provide supporting schedules of adjustments although due to organisational structures (described below) and the operation of costing systems, it was difficult to trace these amounts to general ledger extracts.
- Responsibility for the preparation of NHCDC submissions varied by jurisdiction. In most instances, the area or district health service had primary responsibility for preparing the preliminary costing file, which was then submitted to the jurisdictional health department. Once received, the health department typically performed a series of additional quality assurance procedures that led to adjustments to the preliminary costing file (e.g. the removal of cost or patient records). KPMG notes that not all health departments provided a copy of the final NHCDC submission file to the area or district health service.
- The majority of jurisdictions were not generally able to prepare hospital-level reconciliations of the general ledger to the NHCDC submission. Typically, area-level data (based on data from the general ledger maintained at area-level) was recorded in the *General Ledger* to *Costing System* section of the reconciliation template whereas hospital-level data was recorded for the *Costing System* to *NHCDC Submission* section. The key reasons for this were that:

- None of the jurisdictions maintain hospital-level general ledgers or general ledger structures where all cost centres are specific to a particular hospital. In larger jurisdictions the general ledger is typically maintained at the area or district-level and in smaller jurisdictions it is maintained at the state/territory-level.
- The majority of jurisdictions do not disaggregate the general ledger extract used for the costing process to the hospital-level prior to uploading it to the costing system. Therefore, any adjustments made to the financial data before it is uploaded to the costing system are done at the area- or departmental-level.

Implication

The organisational and chart of account structures of state and territory health services makes it difficult for the existing hospital-level reconciliation template to be completed. In particular, it is difficult for those jurisdictions that upload the extracted general ledger to the costing system at the area- or departmental-level.

Recommendation

1 For future rounds IHPA should request jurisdictions to prepare the financial data component of the reconciliation at the level aligned with their organisational structures and the costing data component at the hospital-level. Independent financial reviews would then be performed on a broader number of hospitals.

4.2 Treatment of work-in-progress

It was apparent from discussions with jurisdictional representatives that the current ability to cost work-in-progress varies across jurisdictions. There are also alternative possible approaches as to how prior year and current year work-in-progress could be costed.

For information purposes, KPMG has documented how jurisdictions have treated work-in-progress in Sections 5 to 11 of this report.

Implication

Variations to the approach for work-in-progress, including the methodology for calculating it, may impact the comparability and accuracy of jurisdictional NHCDC submissions.

Recommendation

2 The treatment of work-in-progress should be included as an item on the Technical Working Group's agenda so that a consistent approach to its treatment and calculation can be discussed and agreed. The decision should be adequately documented and communicated to all jurisdictions.

4.3 Allocation of overheads to non-patient expenditure

The review highlighted that some jurisdictions do not allocate a portion of corporate overheads and other indirect cost centre amounts to those non-patient expenditure

cost centres (including special purpose funds) that are excluded from the NHCDC costing process.

Implication

Patient cost data submitted to the NHCDC may be attributed a disproportionately high amount of corporate overheads.

Recommendation

3 Future versions of the AHPCS should clearly prescribe that excluded cost centres should be apportioned a share of corporate overheads (where it is reasonable to do so) to ensure that NHCDC costing data is not attributed a disproportionate amount of these costs.

4.4 Expenditure in scope

The review found that jurisdictions were typically compliant with AHPCS SCP 2.002 – *Expenditure in Scope*. Where KPMG identified exceptions for the inclusion of in-scope items, the jurisdictions advised that these cost items were not applicable (as opposed to being deliberately excluded). In the case of jurisdictions including out-of-scope items, this was found only to have occurred in the Northern Territory on the basis that they did not consider the items as being too far removed from hospital and patient activities.

4.5 NHCDC data processing

Based on discussions with IHPA staff, there is no requirement for the party tasked with processing the NHCDC data to provide IHPA with a report to explain adjustments made to the data between the submission by a jurisdiction and the data uploaded to the national database. However this information is readily available as evidenced during the review process.

Implication

If IHPA do not have readily available documentation that explains the changes to jurisdictional NHCDC submissions (i.e. an audit trail) there is a lack of transparency as to the changes to the data and the reason for such changes. This may impede IPHA's ability to provide a timely response to associated queries from jurisdictions on data changes.

Recommendation

4 For future rounds of the NHCDC it would be prudent to maintain a file that documents all changes made to the jurisdictional submission by the party processing the data.

4.6 Allocation of patient-related costs with no linked activity data

Some patient-related costs do not have any corresponding patient activity data stored within feeder systems. Discussions with jurisdictions during the course of this review indicate there are generally two practices in treating such costs:

- The costs may be allocated to a non-hospital product or virtual patient in the first instance and then subsequently they are re-allocated to other patients within the same cohort. For example, costs associated with a Breastcare nurse are distributed across the relevant patient cohort who benefit from this service as opposed to a specified patient.
- Again, the costs may be allocated to a non-hospital product or virtual patient in the first instance but then they are subsequently excluded from the NHCDC submission.

Implication

Inconsistent treatment can impact upon the comparability of patient costs.

Recommendation

5 The treatment of patient-related activity costs with no linked activity data should be included as an item on the Technical Working Group's agenda so that a consistent approach to its treatment and calculation can be discussed and agreed. The decision should be adequately documented and communicated to all jurisdictions

4.7 Traffic light summary

Table 1 below provides an overview of the outcomes of KPMG's review procedures by jurisdiction. It is intended to highlight inconsistencies between jurisdictions or issues that may need to be considered for future NHCDC rounds.

Item	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
1 Reconciliation prepared using suggested template		🟡	🟢	🟢	🟢	🟢	🟢	🟢
2 Hospital-level financial data recorded		🟡	🟡	🟡	🟡	🟡	🟡	🟡
3 General ledger extract traced to audited financial statements		🟢	🟢	🟡	🟡	🟡	🟢	🟢
4 Reconciliation traced to financial and costing data		🟢	🟢	🟢	🟢	🟢	🟢	🟢
5 Adequate supporting documentation provided for adjusting items		🟢	🟢	🟢	🟢	🟢	🟢	🟢
6 Direct teaching costs identified and excluded		🟢	🟢	🟢	🟢	🟢	🟢	🟢
7 Direct research costs identified and excluded		🟢	🟢	🟢	🟢	🟢	🟢	🟢
8 Expenditure *included* complies with SCP 2.002[1]		🟢	🟢	🟢	🟢	🟢	🟢	🟢
9 Expenditure *excluded* complies with SCP 2.002		🟢	🟡	🟢	🟢	🟢	🟢	🟢

Table 1: Traffic Light Summary

Key	Definition
🟢	Test procedure able to be performed.
🟡	Test not aligned with jurisdiction or hospital process. In some instances the rationale for some adjustments was unclear, unknown or unable to be traced to a source independent of the costing model. Refer to Section 4.1 of this report.
🔴	Significant and unexplained data inconsistencies exist between key steps in the NHCDC costing process. These pose a high risk to the integrity of the NHCDC data.

[1] Some permitted expenditure items may have been excluded; refer to jurisdictional findings.

5 New South Wales

The following hospitals were reviewed:

- St George Hospital
- John Hunter Hospital
- Wagga Wagga Base Hospital

In the New South Wales (NSW) Round 15 NHCDC submission these hospitals accounted for expenditure of $778.1m, or approximately 11% of total reported NHCDC expenditure for NSW.

5.1 NHCDC costing process

Financial data and hospital costs

During 2010/11, the NSW Ministry of Health (NSW Health) underwent a significant organisational restructure. From 1 July to 31 December 2010, NSW health services were organised into eight Area Health Services (AHS) and two statutory bodies. However, from 1 January 2011 these entities ceased to exist. At that point, the "books were closed" and audited financial statements were produced for the six months July to December 2010.

Effective from 1 January 2011, NSW health services were organised into three separate entity types – 18 Local Health Networks/Specialty Health Networks (LHN/SHNs), three Clusters and three Health Reform Transition Organisations (HRTOs). All services, including clinical and corporate services that had previously been managed at an AHS-level, were transferred to the HRTOs, pending determination as to whether the function was to be transferred to an LHD/SHN or a Cluster. This included clinical services such as Dental, Mental Health, Population Health, and Drug and Alcohol. These arrangements varied from AHS to AHS.

In March 2011, it was determined that LHN entities were to be re-named as Local Health Districts (LHDs) and that the Cluster entities would be abolished. The LHN/LHD name change was effected on 1 July 2011. The HRTOs were instructed to dissolve by May 2012.

Another set of audited financial statements were completed for each entity for the period 1 January to 30 June 2011.

The net cost of services for the HRTOs was posted to the books for each LHN/SHN at year-end. This net cost was for both clinical and corporate services. These entries were subsequently eliminated at the state level during consolidation procedures. For the purposes of the Round 15 NHCDC submission, these net costs were grossed up to reflect the full expense.

To facilitate reconciliation with two six-month sets of audited statements, most LHN/SHNs costed the two periods separately. Episodes were merged by the ABF Taskforce prior to submission to IHPA.

Costing process

The preparation of the Round 15 NHCDC submission for NSW hospitals involved a two-stage approach using the PowerPerformance Manager 1 (PPM1) costing system.

Stage one was performed by costing staff within the LHD who extracted patient activity data and the general ledger from relevant source systems before uploading it to PPM1. Within PPM1 costing rules were applied to adjust for out-of-scope items and allocate corporate overhead costs. The costing data was then produced at the LHD-level, and the preliminary LHD costing file was provided to NSW Health.

Stage two was performed by costing staff within NSW Health who performed quality assurance and data matching procedures over the costing file, and aggregated all costing data from LHDs. The data was separated to the hospital-level using hospital patient-incident identifiers, and the costing file was submitted to IHPA.

5.2 Summary of findings

Hospital reconciliations – general observations

The positive findings are as follows:

- ✓ At the LHD-level – the total cost in the PPM1 output file (or Unaudited Annual Return (UAR)) could be agreed to the audited financial statements for the LHD in which the selected hospital was included.
- ✓ At the LHD-level – explanations were provided for all included and excluded costs and activities. Patient and non-patient-level products were identified at the hospital-level.
- ✓ A number of data checks are completed at both the LHD and the NSW Health-level.
- ✓ The NHCDC data submitted to IHPA for the selected hospitals could be traced to the Round 15 NHCDC data in Combo. Visasys provided explanations for variances.

Other observations:

- It was not possible to trace excluded costs directly to the general ledger; this was for two reasons. Firstly, the design of the costing process means that expenses can be excluded from the general ledger spreadsheet that is loaded into PPM1 or through two general ledger setup options; there was a combination of both approaches for Round 15 NHCDC costing. Secondly, the structural changes that occurred midway through the 2010/11 fiscal year added complexity to the costing processes, and required a number of supporting documents and source data files to be pieced together to trace reconciling items.

- Hospital-level reconciliations using the suggested template were not prepared as the audited financial statements are reported at the LHD level. Instead, LHD level reconciliations were prepared, which detailed each facility within the LHD.
- NSW amended its Round 15 NHCDC submissions after KPMG had completed site visits. The amendments were made to reflect the submission of SNAP patient-level costing data to IHPA. KPMG performed a high-level analytical review of the two reconciliations and noted a corresponding increase in the total costs and number of separations submitted, and the exclusion of additional records due to data quality issues.

Findings by hospital

St George Hospital

St George Hospital forms part of the South Eastern Sydney Local Health District (SESLHD) entity (formerly the South East Sydney Illawarra Area Health Service (SESIAHS) entity up to 31 December 2010).

Total expenditure for SESIAHS was $2,246.3m for 2010/11 per the published audited financial statements. This includes $1,114.0m for SESIAHS and $652.7m for SESLHD, $325.9m for ISHLHD and $153.7m share of Southern Transition Office.

The SESLHD general ledger includes both NHCDC participating hospitals and non-participating hospitals.

Out-of-scope activities (per AHPCS v2.0) totalling $159.2m were excluded[2]. The most significant excluded items included the following:

- Adjustments for Third Schedule Hospitals – $113.7m[3]
- Unallocated expenses and revenue related to business units outside of SESIAHS – $17.2m
- Area overhead allocated to excluded items – $4.2m.

Of the $2,246.3m in expenditure reported in the published audited statements, a total of $2,246.6m was documented by SESIAHS as being input to the costing process (variance of 0.01%). The reconciliation separately identifies expenditure relating to each facility (including those costs not submitted to IHPA) and excluded items.

Of the total costing system output (or Unaudited Annual Return (UAR) file) $1,735.5m related to NHCDC participating hospitals and of this, $401.7m related to St George Hospital. KPMG traced the UAR amount stated in the *original* Round 15 NHCDC reconciliation (Item V) to the amount for St George Hospital stated in the summary of the UAR data file prepared by the LHD. NSW Health explained that the summary was the best available source to confirm the figures stated in the NHCDC reconciliation.

Compared to the UAR amount for St George Hospital, the *Total costed and non-costed product* (Item U) totalled $396.7m. NSW Health explained that this variance of $5.0m

[2] KPMG were provided with a schedule of excluded costs by NSW Health, identifying the type and value of services excluded (these amounts were not agreed to source financial data).
[3] This amount reflects the subsidy payment only and not the full expense.

(1.25%) was due to updates to patient activity records between the date the UAR was prepared and the NHCDC submission date (several months later).

Of the $396.7m in expenditure related to patient-level costed activity for St George Hospital, $287.6m was submitted to IHPA for the Round 15 NHCDC. According to the reconciliation the balance of $109.1m is attributable to the following items:

- Patient costed data not submitted (e.g. non-acute episodes) (Item L) – $10.5m
- Unmatched patient costed records (Item M) – $0.5m
- Non-patient-level costed products (e.g. non-admitted, population health, teaching and research) (Item R) – $98.1m. This amount was agreed to an extract of the UAR file.

Table 2 below compares the split of patient costed product data per the St George Hospital reconciliation to the IHPA Combo report for Round 15. Visasys advised that the Admitted data variance is due to work-in-progress being excluded from Combo.

St George Hospital	Reconciliation	Combo	Variance
Admitted	$255.2m	$249.0m	$6.2m
ED	$32.4m	$32.4m	$nil
Total	$287.6m	$281.4m	$6.2m

Table 2: St George Hospital

John Hunter Hospital

John Hunter Hospital forms part of the Hunter New England Local Health District (HNELHD) entity (formerly the Hunter New England Area Health Service (HNEAHS) entity up to 31 December 2010).

Total expenditure for Hunter New England (HNE) was $1,852.1m for 2010/11 per the published audited financial statements. This includes $888.4m for HNEAHS, $851.3m for HNELHD, $145.1m for the HRTO (HNE share); a gross up adjustment of $32.8m is also required to offset a revenue adjustment.

The HNEAHS general ledger includes both NHCDC participating hospitals and non-participating hospitals.

Out-of-scope activities (per AHPCS v2.0) totalling $216.5m were excluded. The most significant excluded items included the following:

- Area overhead allocated to excluded items – $180.3m
- Pathology Business Unit – $69.5m
- Area Program Services – $69.0m

- A 'gross up' adjustment relating to Third Schedule Hospitals ($127.8m)[4]
- Unallocated expenses and revenue related to business units outside of HNE ($47.6m).

Of the $1,852.1m in expenditure reported in the published audited statements, a total of $1,852.2m was documented by HNEAHS as being input to the costing process (variance of 0.01%). The reconciliation separately identifies expenditure relating to each facility (including those costs not submitted to IHPA) and excluded items.

Of the total costing system output, $1,151.3m related to NHCDC participating hospitals and of this, $500.4m related to John Hunter Hospital. KPMG traced the UAR amount stated in the *original* Round 15 NHCDC reconciliation (Item V) to the amount for John Hunter Hospital stated in the summary of the UAR data file prepared by the LHD.

Compared to the UAR amount for John Hunter Hospital the *Total costed and non-costed product* (Item U) totalled $508.8m. NSW Health explained that the variance of $8.4m (1.65%) was due to timing differences (as noted in the St George Hospital observations above).

Of the $508.8m in expenditure related to patient-level costed activity for John Hunter Hospital, $384.5m was submitted to IHPA for the Round 15 NHCDC. According to the reconciliation the balance of $124.2m is attributable to the following items:

- Patient costed data not submitted (e.g. non-acute episodes) (Item L) – $8.6m
- Unmatched patient costed records (Item M) – $4.6m
- Non-patient-level costed products (e.g. non-admitted, population health, teaching and research) (Item R) – $111.0m. This amount was agreed to an extract of the UAR file.

Table 3 below compares the split of patient costed product data per the John Hunter Hospital reconciliation to the IHPA Combo report for Round 15. The variance is due to the same reason identified for St George Hospital above.

[4] The general ledger reflects only the expense relating to what the LHD paid to the Third Schedule Hospital, not the full expense incurred to run the services. For the purposes of the NHCDC submission, these net costs were adjusted (or 'grossed up') to reflect the full expense.

John Hunter Hospital	Reconciliation	Combo	Variance
Admitted	$349.9m	$332.5m	$17.4m
ED	$34.6m	$34.6m	$nil
Total	$384.5m	$367.1m	$17.4m

Table 3: John Hunter Hospital

Wagga Wagga Base Hospital

Wagga Wagga Base Hospital forms part of the Murrumbidgee Local Health District (MLHD) entity (formerly the Greater Southern Area Health Service (GSAHS) entity up to 31 December 2010).

Total expenditure for GSAHS was $919.9m for 2010/11 per the published audited financial statements. This includes $463.4m for GSAHS, $150.2m for SNSWLHD, $214.9m for MLHD and $91.3m for HRTO (MLHD share). KPMG agreed this figure to the reconciliation provided to IHPA for GSAHS.

The GSAHS general ledger includes both NHCDC participating hospitals and non-participating hospitals.

Out-of-scope activities (per AHPCS v2.0) totalling $74.1m were excluded. The most significant excluded items included the following:

- Exclusion of Albury Base Hospital (transferred to Victoria) – $36.4m
- Transfer of Area overhead from HRTO and LHD financial statements – $40.5m
- Capital expenditure – $3.5m
- Patient travel (IPTAAS) – $1.0m
- A gross up adjustment relating to Third Schedule Hospitals – ($9.3m)[5].

Of the $919.9m in expenditure reported in the published audited statements, a total of $920.0m was documented by GSAHS as being input to the costing process (0.01% variance). The reconciliation separately identifies expenditure relating to each facility (including those costs not submitted to IHPA) and excluded items.

Of the total costing system output, $449.6m related to NHCDC participating hospitals and of this, $148.0m related to Wagga Wagga Base Hospital. KPMG traced the UAR amount stated in the *original* Round 15 NHCDC reconciliation (Item V) to the amount for Wagga Wagga Base Hospital stated in the summary of the UAR data file prepared by the local health district.

Compared to the UAR amount for Wagga Wagga Base Hospital the *Total costed and non-costed product* (Item U) totalled $146.0m. NSW Health explained that this variance of $2.0m (1.38%) was due to timing differences.

[5] See Footnote 4 above.

Of the $146.0m in expenditure related to patient-level costed activity for Wagga Wagga Base Hospital, $106.0m was submitted to IHPA for the Round 15 NHCDC. According to the reconciliation the balance of $40.0m is attributable to the following items:

- Patient costed data not submitted (e.g. non-acute episodes) (Item L) – $6.0m
- Unmatched patient costed records (Item M) – $0.3m
- ED Admitted (non-patient-level costed) – $6.0m
- Non-patient-level costed products (e.g. non-admitted, population health, teaching and research) (Item R) – $27.5m. This amount was agreed to an extract of the UAR file.

Table 4 below compares the split of patient costed product data per the Wagga Wagga Base Hospital reconciliation to the IHPA Combo report for Round 15. The variance is due to the same reason identified for St George Hospital above.

Wagga Wagga Base Hospital	Reconciliation	Combo	Variance
Admitted	$106.0m	$103.2m	$2.8m
ED	$nil	$nil	$nil
Total	$106.0m	$103.2m	$2.8m

Table 4: Wagga Wagga Base Hospital

Teaching and research expenditure

The reclass rules within PPM1 map teaching costs to specified cost centres where clinical teaching is the predominant purpose of the cost centre. This requires the identification of relevant cost drivers to calculate teaching activity and related expenditure. In respect of actual research and associated costs (e.g. recruitment of trial participants), expenditure is also mapped and recorded to specified cost centres as part of the PPM1 expenditure reclass process.

New South Wales did not report teaching and research costs as part of its Round 15 NHCDC submission.

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 5 of this report) was included in the Round 15 NHCDC submission except for medical indemnity insurance (MII).
- Expenditure required to be excluded by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 6 of this report) was excluded from the Round 15 NHCDC submission.

Work-in-progress

NSW costed and included in the submission to IHPA all patients that were work-in-progress either at the beginning of the year or at the end of the year. The costs are only those costs that relate to the 2010/11 period. No costs from previous years were incorporated in the Round 15 NHCDC submission.

6 Northern Territory

Royal Darwin Hospital was reviewed. In the Northern Territory Round 15 NHCDC submission Royal Darwin Hospital accounted for expenditure of $352.4m, or approximately 60% of total reported NHCDC expenditure for the Northern Territory.

6.1 NHCDC costing process

Financial data and hospital costs

The Northern Territory audited financial statements are produced for the Northern Territory Department of Health (NT Health); separate statements are not prepared at the region- or hospital-level. The general ledger is recorded at the territory-level.

Costing process

The preparation of the Round 15 NHCDC submission for Northern Territory hospitals was performed by NT Health's Activity Based Funding team with support from a Visasys contractor using the Combo CC costing system. This team was established early in the 2012 calendar year as the previous costing team had been disbanded several months earlier. There was no staff handover and limited documentation was available to describe the methodologies applied in previous NHCDC rounds. Consequently, the current team re-formulated a number of the cost allocation methodologies and assumptions for Round 15.

For Round 15 a significant number of expenditure adjustments, cost centre re-classifications and overhead allocations were performed prior to the data being uploaded to Combo CC. Further adjustments were generally limited to excluding other out-of-scope and non-patient-level items.

6.2 Summary of findings

Hospital reconciliations – general observations

The positive findings are as follows:

- ✓ The extract of the general ledger used for the costing process was traced to audited financial statements at the territory-level.
- ✓ It was possible to trace costs from the general ledger extract to the costing system and the NHCDC submission for the selected hospital. Adequate supporting schedules and explanations were provided to KPMG for adjusting items.
- ✓ The NHCDC data submitted to IHPA for the selected hospital could be traced to the Round 15 NHCDC data in Combo.

Other observations:

- As noted above, a new costing team was formed to prepare the Round 15 NHCDC submission with some support provided by an external contractor. As a result the

methodologies and cost drivers used to determine indirect cost allocations may differ compared to previous rounds. Staff advised that they have documented the methodologies used for Round 15.

Findings by hospital

Royal Darwin Hospital

Total expenditure for NT Health was $1,112.6m for 2010/11 per the published audited financial statements. KPMG agreed this amount to the general ledger used for the Round 15 NHCDC costing process. We note that the general ledger was adjusted to include long service leave expense for 2010/11 (by cost centre); this expense is not included within NT Health's general ledger as it is separately managed by the Department of Treasury and Finance.

The general ledger used for the costing process was adjusted to exclude cost centres unrelated to the NHCDC costing process ($46.9m). In addition, expenditure required to be excluded as per the AHPCS was also deducted as a lump sum for all NHCDC participating hospitals ($98.0m). The most significant items included the following:

- Cross border charges – $31.2m
- Aero medical services – $21.2m
- National Critical Care and Trauma Response Centre – $4.9m.

In addition to these items, further adjustments were made to add back inter-hospital transport expenditure ($23.7m).

As a result, $648.6m was uploaded to the Combo CC costing system. KPMG were provided with a general ledger report to agree the amounts adjusted.

For Royal Darwin Hospital, total expenditure uploaded to Combo CC was $385.6m per the NHCDC reconciliation. The amount was agreed to supporting schedules and comprises:

- Costs directly attributable to Royal Darwin Hospital – $313.2m
- Corporate overheads allocated (based on total bed days) – $58.0m
- Teaching and research – $4.2m
- Patient travel – $10.2m.

Of the total expenditure uploaded to Combo CC $352.4m was submitted to IHPA for the Round 15 NHCDC. According to the reconciliation the balance of $33.2m is attributable to the following excluded items:

- Work-in-progress – $8.8m
- Patient transport – $10.5m
- Unlinked records – $0.1m
- Records with no patient-level data – $13.9m.

These adjustments were agreed to supporting schedules.

Table 5 below compares the split of patient costed product data per the Royal Darwin Hospital reconciliation to the IHPA Combo report for Round 15.

Royal Darwin Hospital	Reconciliation	Combo	Variance
Admitted	$263.2m	$263.2m	$nil
ED	$35.4m	$35.4m	$nil
Outpatient	$41.4m	$41.4m	$nil
Teaching and Research	$12.4m	$12.4m	$nil
Total	$352.4m	$352.4m	$nil

Table 5: Royal Darwin Hospital

Teaching and research expenditure

A mix of direct and indirect cost centres related to teaching and research activity exist within the Northern Territory Department of Health general ledger. For Round 15 expenditure related to direct teaching and research activities has been excluded from patient-level costings in accordance with the AHPCS. The Northern Territory has treated indirect or incidental teaching and research as normal patient care.

The Northern Territory reported teaching and research costs as part of its Round 15 NHCDC submission.

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 5 of this report) was included in the Round 15 NHCDC submission except for medical indemnity insurance (MII).
- Expenditure required to be excluded by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 6 of this report) was excluded from the Round 15 NHCDC submission except for the following items:
  - Aerial retrieval and Royal Flying Doctor Services (where included expenditure was only for inter-hospital transport, which does comply with the AHPCS) - $10.2m
  - Centralised data services (as all data services for the two hospital networks are provided centrally, and the costs are apportioned to each of the users including the hospital networks) - $1.0m
  - Health Department executive (as a proportion of CEO and ED Strategy and Reform are directly attributable to hospital work) - $0.9m
  - Public relations – Media Centre (as a significant proportion of their work is hospital-related) - $0.4m.

Work-in-progress

The Northern Territory costed but excluded all patients that were work-in-progress either in the prior year or current year. That is, the costs included in the Round 15 NHCDC submission relate patients discharged in the 2010/11 period only.

7 Queensland

7.1 Test coverage

The following hospitals were reviewed:

- Gold Coast Hospital
- Rockhampton Hospital
- Nambour Hospital

In the Queensland Round 15 NHCDC submission these hospitals accounted for expenditure of $1,164.5 million, or approximately 18% of total reported NHCDC expenditure for Queensland.

7.2 NHCDC costing process

Financial data and hospital costs

For Queensland, audited financial statements are produced for the Queensland Department of Health (Queensland Health). Separate Hospital and Health Services (HHS) exist to manage multiple hospitals across the state. All information in the general ledger is recorded at the state-level but is disaggregated to the HHS-level (or business area) for costing purposes.

Costing process

The preparation of the Round 15 NHCDC submission for Queensland hospitals involved a two-stage approach using the Transition II costing system.

Stage one involved the HHS costing team extracting the general ledger and uploading the unadjusted ledger to Transition II on a monthly basis throughout 2010/11. Patient activity was also uploaded on a routine basis throughout the year. Within Transition II reclassification rules, cost centre mapping and overhead allocation calculations were performed to redistribute expenditure and exclude out-of-scope items. At year-end the costing data was produced and the costing file was provided to Queensland Health.

Stage two – Queensland Health costing staff performed a series of quality assurance and data matching procedures over the HHS costing file, and added departmental corporate overhead costs to the costing file. Once the data was separated to the hospital-level, the NHCDC file was submitted to IHPA.

7.3 Summary of findings

Hospital reconciliations – general observations

The positive findings are as follows:

- ✓ It was possible to trace costs from the general ledger extract to the costing system and the NHCDC submission for the selected hospitals. Adequate explanations and schedules were provided to KPMG to substantiate most adjusting items.
- ✓ There has been an overall improvement in the documentation to support Queensland's Round 15 NHCDC submission compared to Round 14. While there was still a small variance of 2.1% between the audited financial statements and the state-level general ledger extracted for use in the costing process, this is much less than Round 14. In addition, explanations were provided for all adjusting items and these were documented in the reconciliations prepared.
- ✓ Queensland's NHCDC costing coordinator performs particularly comprehensive quality assurance processes over the data once it has been extracted from Transition II.
- ✓ The NHCDC data submitted to IHPA for the selected hospitals could be traced to the Round 15 NHCDC data in Combo.

Findings by hospital

Queensland Health

As noted above Queensland HHS's and hospitals do not prepare audited financial statements on an individual basis; they are aggregated and form the Queensland Health audited financial statements.

Total expenditure for Queensland Health in 2010/11 was $10,570.4m per the published audited financial statements. The state-level general ledger extracted was $10,791.5m (a variance of 2.1%). Queensland Health advised that the variance is linked to payroll and accrual accounting issues. Of total expenditure in the extracted general ledger, $8,143.3m was identified as patient-level expenditure to be used in the NHCDC costing process.

Gold Coast Hospital

Gold Coast Hospital forms part of the Gold Coast Hospital and Health Service (GCHHS). Total expenditure for GCHHS per the extracted general ledger was $700.6m for 2010/11 whereas expenditure uploaded to Transition II was $698.6m (a variance of 0.3%). Queensland Health advised that the variance is likely to relate to adjustments in the accrual accounting periods 13 to 16.

A number of adjustments were made within Transition II at the GCHHS-level. These adjustments included the following:

Excluded costs:

- Out-of-scope costs (per the AHPCS v2.0) – $45.7m
- Unlinked records – $18.5m

- Records with mandatory fields missing or incomplete (quality issues) – $19.7m
- Current year work-in-progress – $16.2m
- Prior year work-in-progress – $29.6m

Included costs:

- Shared Services costs – $13.0m
- Medical indemnity insurance – $4.2m
- Blood products – $5.0m
- Patients with negative costs – $2.8m

Queensland Health provided schedules and costing system extracts for the items listed above except for adjustments made for unlinked records and those with data quality issues. This was also the case for the other hospitals reviewed overleaf.

According to the NHCDC reconciliation the expected total for costing purposes was $596.0m. This compares to the actual costing output for GCHHS which was $598.0m (a variance of 0.3%).

After the completion of GCHHS-level adjustments, $579.4m was identified as being applicable to the Gold Coast Hospital. The following adjustments were made prior to the data being submitted to IHPA for the Round 15 NHCDC:

- $0.7m was excluded due to activity without accurate and reliable patient attendance data
- $1.9m was included to incorporate the activity associated with unqualified newborns

Table 6 below compares the split of patient costed product data per the Gold Coast Hospital reconciliation to the IHPA Combo report for Round 15. There are no variances.

Gold Coast Hospital	**Reconciliation**	**Combo**	**Variance**
Admitted	$376.6m	$376.6m	$nil
ED	$76.1m	$76.1m	$nil
Outpatient	$127.9m	$127.9m	$nil
Total	$580.6m	$580.6m	$nil

Table 6: Gold Coast Hospital

Nambour Hospital

Nambour Hospital forms part of the Sunshine Coast Hospital and Health Service (SCHHS). Total expenditure for SCHHS per the general ledger was $506.2m for 2010/11 whereas expenditure uploaded to Transition II was $503.3m (a variance of 0.6%). The same explanation was provided as noted above for Gold Coast Hospital.

A number of adjustments were made within Transition II at the SCHHS-level. These adjustments included the following:

Excluded costs:

- Out-of-scope costs (per the AHPCS v2.0) – $1.7m
- Unlinked records – $10.6m
- Records with mandatory fields missing or incomplete (quality issues) – $40.8m
- Current year work-in-progress – $8.5m
- Prior year work-in-progress – $17.8m

Included costs:

- Shared Services costs – $10.2m
- Medical indemnity insurance – $3.3m
- Blood products – $3.9m
- Patients with negative costs – $7.6m

KPMG was able to agree the adjustments above to supporting schedules.

According to the NHCDC reconciliation the expected total for costing purposes was $444.9m. This compares to the actual costing output for SCHHS which was $445.9m (a variance of 0.2%).

KPMG notes that after the completion of SCHHS-level adjustments, $347.8m was identified as being applicable to Nambour Hospital. The following adjustments were made prior to the data being submitted to IHPA for the Round 15 NHCDC:

- $0.2m was excluded due to activity without accurate and reliable patient attendance data
- $1.8m was included to incorporate the activity associated with unqualified newborns

Table 7 below compares the split of patient costed product data per the Nambour Hospital reconciliation to the IHPA Combo report for Round 15. There are no variances.

Nambour Hospital	Reconciliation	Combo	Variance
Admitted	$199.1m	$199.1m	$nil
ED	$21.9m	$21.9m	$nil
Outpatient	$128.4m	$128.4m	$nil
Total	$349.4m	$349.4m	$nil

Table 7: Nambour Hospital

Rockhampton Hospital

Rockhampton Hospital forms part of the Central Queensland Hospital and Health Service (CQHHS). Total expenditure for CQHHS per the general ledger was $351.8m for 2010/11 whereas expenditure uploaded to Transition II was $349.2m (a variance of 0.7%). The same explanation was provided as noted above for Gold Coast Hospital.

A number of adjustments were made within Transition II at the CQHHS-level. These adjustments included the following:

Excluded costs:

- Out-of-scope costs (per the AHPCS v2.0) – $4.8m
- Unlinked records – $6.7m
- Records with mandatory fields missing or incomplete (quality issues) – $63.0m
- Current year work-in-progress – $5.5m
- Prior year work-in-progress – $7.4m

Included costs:

- Shared Services costs – $8.0m
- Medical indemnity insurance – $2.6m
- Blood products – $2.3m
- Patients with negative costs – $0.5m

KPMG was provided with supporting schedules for these adjusting items.

According to the NHCDC reconciliation the expected total for costing purposes was $277.8m. This compares to the actual costing output for CQHHS which was $272.5m (a variance of 2.0%).

After the completion of CQHHS-level adjustments, $234.8m was identified as being applicable to Rockhampton Hospital. The following adjustments were made prior to the data being submitted to IHPA for the Round 15 NHCDC:

- $0.9m was excluded due to activity without accurate and reliable patient attendance data

- $0.7m was included to incorporate the activity associated with unqualified newborns

Table 8 below compares the split of patient costed product data per the Rockhampton Hospital reconciliation to the IHPA Combo report for Round 15. There are no variances.

Rockhampton Hospital	Reconciliation	Combo	Variance
Admitted	$110.7m	$110.7m	$nil
ED	$24.3m	$24.3m	$nil
Outpatient	$99.6m	$99.6m	$nil
Total	$234.6m	$234.6m	$nil

Table 8: Rockhampton Hospital

Teaching and research expenditure

Indirect teaching costs are not accounted for separately; costs are included as part of medical and nursing salaries and wages, or corporate overheads costs. Direct teaching costs are separately identified and removed from the costing process at the facility-level.

Research costs are treated in the same way.

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 Expenditure in Scope (detailed in Appendix A, Procedure 5 of this report) was included in the NHCDC Round 15 submission.
- Expenditure required to be excluded by AHPCS SCP 2.002 Expenditure in Scope (detailed in Appendix A, Procedure 6 of this report) was excluded from the NHCDC Round 15 submission.

Work-in-progress

Queensland included only those patients who were admitted and discharged in 2010/11. Those patients that were work-in-progress at year-end were excluded from the Round 15 NHCDC submission.

8 South Australia

8.1 Test coverage

The following hospitals were reviewed:

- Women's and Children's Hospital
- Lyell McEwin Hospital

In the South Australia Round 15 NHCDC submission these hospitals accounted for expenditure of $408.6m, or approximately 24% of total NHCDC expenditure for South Australia (excluding outpatients and country sites).

8.2 NHCDC costing process

Financial data and hospital costs

One general ledger is maintained for the entirety of the South Australian Department of Health (SA Health). Audited financial statements are produced and published at a Local Health Network-level rather than hospital-level, however hospitals and their associated costs are included as distinct entities within the general ledger.

Costing process

The Round 15 NHCDC submission process for South Australia consisted of three stages using the Trendstar costing system:

Stage one – SA Health Finance provided an extract of the general ledger for the relevant hospital to centralised costing staff, who in turn forwarded the file to onsite costing teams. Shared services costs were added to the general ledger extract and other adjustments were made (for example, to exclude special purpose funds and public health expenditure distributions).

Stage two – Onsite costing staff (contracted through PowerHealth) mapped the general ledger information to cost centres, aggregated accounts and input feeder system data. Costs were mapped to activity, and allocated to inpatients and outpatients.

Stage three – The file was returned to the SA Health costing team who validated the data received against state morbidity data. Variances were checked, unexplained costs were removed and classified as unmatched, and (where necessary) patients were bundled. Once checked and audited, the final file was submitted to IHPA.

8.3 Summary of findings

Hospital reconciliations – general observations

The positive findings are as follows:

- ✓ It was possible to trace costs from the general ledger extract to the costing system and the NHCDC submission for the selected hospital. Adequate supporting schedules were provided to KPMG to substantiate adjusting items.
- ✓ The South Australian costing process was particularly comprehensive, with numerous quality controls observed as being built into the process to ensure accuracy.
- ✓ The NHCDC data submitted to IHPA for the selected hospitals could be traced to the Round 15 NHCDC data in Combo.

Other observations:

- KPMG notes that the general ledger extract is not necessarily matched to the audited financial statements. KPMG understands that the extract used for costing was not the final total expenditure line used in the financial statements, as at the time of costing this had not been finalised. KPMG understands that any difference between the financial statements and the general ledger extract is a timing issue.

Findings by hospital

Women's and Children's Hospital

During the 2010/11 financial year, The Women's and Children's Hospital was part of the Children Youth and Women's Health Service (CYWHS). It is now part of the Women's and Children's Health Network. Financial statements for 2010/11 were prepared for the CYWHS network as a whole. Operating expenditure in the financial statements for 2010/11 amounted to $382.1m.

The total operating expense for The Women's and Children's Hospital, as extracted from the general ledger, was $297.6m. Adjustments were made for the following items:

Excluded costs:

- Recharges – $7.6m
- Capital related expenditure – $3.3m
- Out of scope items (including bad debts and costs relating to health promotion, and drug and alcohol services) – $4.4m.

Included costs:

- Shared services costs – $16.1m
- Insurances – $0.5m

Net of the adjustments above, the costs uploaded to Trendstar was $298.9m. The final amount submitted to the NHCDC totalled $267.6m (including $63.9m for Outpatients). Adjustments were made for the following items:

- Direct research and teaching costs – $11.1m
- Work-in-progress costs removed – $15.4m
- Unmatched patient costs – $0.4m
- Non-hospital services – $4.4m.

Table 9 below compares the split of patient costed product data per the Women's and Children's Hospital reconciliation to the IHPA Combo report for Round 15. There are no variances.

The Women's and Children's Hospital	Reconciliation	Combo	Variance
Admitted	$182.8m	$182.8m	$nil
ED	$20.9m	$20.9m	$nil
Total	$203.7	$203.7	$nil

Table 9: The Women's and Children's Hospital

Lyell McEwin Hospital

During the 2010/11 financial year, the Lyell McEwin Hospital was part of the Central Northern Area Health Service (CNAHS). These networks have since changed, and Lyell McEwin Hospital is now part of the Northern Adelaide Local Health Network. At the time of reporting, the financial statements for CNAHS for the 2010/11 financial year are yet to be finalised.

The total operating expense per the general ledger amounted to $261.3m, excluding Special Purpose Funds (SPF). The following adjustments were made before uploading into Trendstar:

Exclude:

- Recharges (as a proxy for the cost of services provided off site) $1.2m
- Lyell McEwin Hospital oncology radiation transfer to the Royal Adelaide Hospital – $0.4m
- Bad debts expenses – $0.2m.

Add:

- Shared services allocation – $10.8m
- Transfer of renal salaries and wages from the Royal Adelaide Hospital – $0.8m
- Payment of insurances – $0.4m.

The total amount uploaded into Trendstar, net of the adjustments above, was $271.5m. Patient costs per the NHCDC submission totalled $253.2m (including $48.3m for Outpatients). The remaining hospital costs of $18.3m were for:

- Direct teaching and research – $10.0m
- Work-in-progress costs removed – $6.9m
- Unmatched records – $0.2m
- Other non-NHCDC items (excluded outpatient costs) – $1.2m.

Table 10 below compares the split of patient costed product data per the Lyell McEwin Hospital reconciliation to the IHPA Combo report for Round 15. There are no variances.

Lyell McEwin Hospital	Reconciliation	Combo	Variance
Admitted	$169.4m	$169.4m	$nil
ED	$35.5m	$35.5m	$nil
Total	$204.9m	$204.9m	$nil

Table 10: Lyell McEwin Hospital

Teaching and research expenditure

Cost allocation for teaching and research costs uses a patient fraction method based on previous survey results of the percentage of time allocated to teaching and research. The fractions allocate amounts from the respective cost centres to teaching and research.

When received centrally (SA Health data team), the total teaching and research costs are split (50%) to indirect (including ward rounds) and direct teaching (face-to-face teaching). Direct teaching costs are allocated to patient cost centres where they are incurred (they are subsequently excluded from the NHCDC submission), whilst indirect teaching is allocated across the whole of inpatients and outpatients. Teaching only applies to medical costs.

The process is identical for the allocation of research costs.

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 5 of this report) was included in the Round 15 NHCDC submission except for Blood Products.
- Expenditure required to be excluded by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 6 of this report) was excluded from the Round 15 NHCDC submission.

Work-in-progress

South Australia submitted patient costs relating to those patients discharged in 2010/11 only. This means that work-in-progress costs relating to patients not discharged in the current financial year were excluded.

9 Tasmania

9.1 Test coverage

Royal Hobart Hospital was reviewed. In the Tasmania Round 15 NHCDC submission Royal Hobart Hospital accounted for expenditure of $367.4m, or approximately 48% of total reported NHCDC expenditure for Tasmania.

9.2 NHCDC costing process

Financial data and hospital costs

The audited financial statements are prepared for the whole of the Department of Health and Human Services (DHHS) on an accrual basis. At the hospital-level day-to-day activities are managed on a cash basis (using a cash general ledger); the accrual general ledger is used for preparing the NHCDC submission. There is no reconciliation between the hospital general ledger accounts and the DHHS accrual financial statements.

Costing process

The costing process for all hospitals within Tasmania is performed centrally by the DHHS. Interaction with hospitals to inform the costing process is currently limited, but is expected to improve over time.

Activity data informs costing through the use of a centralised patient management system (IPAS/HOMER), used across four Tasmanian hospitals (Royal Hobart, Launceston, Bernie and Mersey).

The Round 15 NHCDC submission for Tasmanian hospitals involved a two-stage approach using the Combo CC costing system. The two stages are outlined as follows:

Stage one – this stage involved the extraction of financial, activity and feeder data from the respective systems. Financial information was extracted from Finance One, feeder systems from individual systems relating to pharmacy, pathology and imaging, and activity information from IPAS/HOMER.

Stage two – involved the transformation and integration of the data, followed by matching of the financial and activity data by encounter level. Costs were allocated across a range of care types, including outpatients, inpatients and ED. Numerous checks and auditing of the data occurred throughout this process, before the final NHCDC file was submitted to IHPA.

9.3 Summary of findings

Hospital reconciliations – general observations

The positive findings are as follows:

- ✓ KPMG was provided with supporting schedules to explain adjustments to the general ledger extract. The methodology for calculating shared cost allocations was also explained and supported with documentation.
- ✓ It was possible to trace costs from the general ledger extract to the costing system and the NHCDC submission for the selected hospital, with the exception of unmatched costs, which is explained further in detail below. Adequate explanations were provided to KPMG for all other adjusting items.
- ✓ The costing process is to become quarterly, to improve information dissemination within the DHHS and across sites.
- ✓ The NHCDC data submitted to IHPA for the selected hospital could be traced to the Round 15 NHCDC data in Combo. Visasys provided explanations for variances.

Other observations:

- The extract of the general ledger used for the costing process could not be agreed to the audited financial statements, as financial statements are produced only at the departmental-level and a schedule identifying the Royal Hobart Hospital portion was not provided.

Findings by hospital

Royal Hobart Hospital

The Royal Hobart Hospital was part of the Southern Tasmanian Area Health Service (STAHS) in 2010/11. STAHS is the largest AHS, comprising approximately half of the State's health services. Financial statements are not produced for Royal Hobart Hospital as an individual entity, but for the DHHS as a whole. It was therefore not possible to compare Royal Hobart Hospital expenditure to audited financial statements.

The general ledger extract uploaded to Combo CC totalled $394.4m. Additional shared services costs (IT, workforce, human resources, payroll), resulted in a total amount to be costed of $413.2m. Shared services are calculated based on a percentage of the total shared costs split across all health services.

The total submitted to NHCDC amounted to $367.4m, a variance of $45.8m on the general ledger amount. This variance comprised exclusions of:

- Direct teaching costs – $7.5m
- Work-in-progress costs – $0.4m
- Unmatched patient costs – $9.9m
- Community health costs – $17.6m
- Non-NHCDC costs (e.g. payroll tax expenses, interstate charging, sexual assault program costs and meals on wheels) – $10.4m.

Unmatched patient costs did not match the amount provided in supporting documentation from the DHHS. The variance amounted to $1.4m. However, the total amount provided in supporting documentation amounts to the total amount costed, i.e. $413.2m. This suggests that $1.4m of matched costs have been reclassified as unmatched for the NHCDC submission.

Table 11 below compares the split of patient costed product data per the Royal Hobart Hospital reconciliation to the IHPA Combo report for Round 15. Visasys advised that the Admitted data variance is due to work-in-progress being excluded from Combo.

Royal Hobart Hospital	**Reconciliation**	**Combo**	**Variance**
Admitted	$293.6m	$279.3m	$14.3m
ED	$29.6m	$29.6m	$nil
Outpatient	$44.2m	$44.2m	$nil
Total	$367.4m	$353.1m	$14.3m

Table 11: Royal Hobart Hospital

Teaching and research expenditure

Direct teaching costs are allocated as a percentage of each relevant cost centre, based on information provided historically by clinical staff, through the use of a survey tool. Teaching costs for each cost centre are aggregated to produce the total direct teaching cost for the hospital; this amount is then excluded from the NHCDC submission. Indirect teaching costs are not accounted for separately and are included as part of patient expenditure.

Research costs are treated in a similar way.

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 5 of this report) was included in the Round 15 NHCDC submission except for:
  - Ambulance and patient transport
  - Area health services
  - Centralised data reporting to hospitals
  - Organ and tissue donation for transplantation and retrieval.
- Expenditure required to be excluded by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 6 of this report) was excluded from the Round 15 NHCDC submission.

Work-in-progress

Prior to 2010/11 Tasmania did not account for work-in-progress and all patients were costed regardless of their discharge date. However, for Round 15 work-in-progress for admitted but yet to be discharged patients was excluded from the NHCDC costing. There is no work-in-progress to be added back as this was not included in the prior round.

10 Victoria

10.1 Test coverage

The following hospitals were selected for review:

- Royal Melbourne Hospital
- Royal Women's Hospital
- The Alfred Hospital

In the Victoria Round 15 NHCDC submission these hospitals accounted for expenditure of $935.8m, or approximately 18% of total reported NHCDC expenditure for Victoria.

10.2 NHCDC costing approach

Financial data and hospital costs

Within Victoria, each health network maintains its own general ledger and publishes annual audited financial statements. Each of the health services reviewed employs costing staff who are responsible for internal costing of activity and submission of cost data annually to the Victorian Department of Health ('Victorian DH') for the Victorian Costing Data Collection (VCDC). The Victorian DH validate, compile and submit statewide costing information to the NHCDC.

Costing process

There are three distinct stages that comprise the costing process within Victoria. These are as follows:

Stage One – Health service costing

Health services may use different costing software with three different vendors providing costing software and/or services for the Round 15 period. Health services are required to follow Clinical Costing Standards Association of Australia (CCSAA) and applicable Australian Hospital Patient Costing (AHPCS) standards. While processes may differ between health services, all use a general ledger extract for costing that is reconciled to the Financial Return (F1) reported monthly to the Victorian DH. Activity data is extracted from a wide range of information systems within the health services. Reconciliation of activity data is undertaken against internal systems.

The costing systems used in 2010/11 at each health service are outlined for each audited hospital as follows:

- ***Royal Melbourne Hospital –*** used the ComboCC costing system.
- ***Royal Women's Hospital –*** used the PowerPerformanc Manager 2 (PPM2) costing system. Previously the Royal Women's Hospital outsourced the processing of cost

data to PowerHealth Solutions. Processing has now been brought in-house with staff employed to undertake the costing process.

- ***The Alfred* –** used the PPM2 costing system. Previously Alfred Health used PPM1 costing software.

Stage Two – Victorian Cost Data Collection

All metropolitan and major rural health services are required to submit annual cost data to the VCDC. The Victorian DH provides activity data from the Victorian Admitted Episodes Dataset (VAED) and Victorian Emergency Minimum Dataset (VAED) for health services to validate reported episodes. Health services must also submit a financial reconciliation and cost allocation report to the Victorian DH with their NHCDC submission. For Round 15, the Victorian DH required health services to reconcile their VCDC submission to the published expenditure in their Annual Report.

For submission of 2010/11 data to the VCDC, the Victorian DH funded upgrades of costing software and hardware in all health services to meet changed reporting specifications. These changes were required to meet NHCDC and AHPCS specifications i.e. health services moved from reporting a single row of information per episode at the cost bucket level, to submitting multiple rows of cost data by cost centre and line item level.

Stage Three – Victorian DH

Once costing files are received from sites across Victoria, the Victorian DH begins the process of validating the VCDC and then prepares the NHCDC files for submission. In reconciling the VCDC submission the Victorian DH matches files to the VAED and VEMD to obtain episode level details that are later mapped to IHPACost specifications and provided in the NHCDC submission. Any VCDC episodes that cannot be linked to VAED or VEMD activity, or fail validation processes are not submitted to NHCDC.

Non-admitted specialist consultations are linked to a database of registered approved specialist clinics to obtain the Tier 2 class. Any VCDC non-admitted episodes that cannot be linked to this clinic database or fail validation processes are not submitted to NHCDC. VCDC cost data records are mapped to the appropriate cost centre and line item as per the AHPCS.

Validation includes comparison of cost to prior years and review with the health services to confirm the validity of the reported cost data.

10.3 Summary of findings

Hospital reconciliations – general observations

The positive findings are as follows:

- ✓ The extract of the general ledger used for the costing process was agreed to audited financial statements (i.e. Annual Report) at the health service-level.
- ✓ Each site demonstrated a comprehensive costing process, with numerous checks and balances built in to ensure accuracy of results.
- ✓ The NHCDC data submitted to IHPA for the selected hospitals could be traced to the Round 15 NHCDC data in Combo.

Other observations:

- VCDC reporting specifications mean that non-operating expenditure is excluded from the costing process. This means that non-operating costs relating to teaching, research, depreciation and amortisation are not reported to the VCDC. Operating expenditure relating to teaching is included as an indirect (overhead) cost in the VCDC and NHCDC.
- Variances between the VCDC (submitted by sites) and the NHCDC submission (submitted by the Victorian DH) are substantial for non-admitted activity, with only 3% of total non-admitted costed activity reported to NHCDC. The variances are primarily due to the inability to match VCDC data to a correct Tier 2 class and the exclusion from the NHCDC of other non-admitted activity (i.e. community health, sub-acute, non-patient level costs).
- The selected hospital reconciliations reviewed by KPMG during fieldwork were those originally submitted to IHPA. However, subsequent amendments were made to the Royal Melbourne Hospital reconciliation by the Victorian DH as a result of confusion related to using the reconciliation template, specifically with respect to the treatment of *Costing System to NHCDC Submission* adjustments. The updated reconciliation was provided to KPMG on 16 October 2012 and has been used to inform the findings contained within this report.

Findings by hospital

Royal Melbourne Hospital

The Royal Melbourne Hospital is part of Melbourne Health, which also includes the Royal Park campus (rehabilitation and aged care) and the North West Mental Health campus. The general ledger and financial statements are prepared at a health service-level. The Melbourne Health costing team prepares the VCDC submission to the Victorian DH.

The total expenditure listed in the Annual Report for 2010/11 amounted to $889.1m. The total amount allocated through the costing process was $787.1m, resulting in an adjustment of $102.0m. This adjustment is accounted for in the following excluded items:

- Capital related expenditure items – $0.4m
- Depreciation and amortisation – $51.3m
- Special purpose funds – $36.3m
- Other – commercial related inventories – $19.3m
- Other - controlled entities – $6.5m
- Remaining variance – $0.17m which reflects a difference in the accounting of depreciation in the published Annual Report compared to the Financial Return
- Prior year work-in-progress, added back – $11.9m.

The $787.1m was allocated across the different campuses by campus code. The total amount allocated to Royal Melbourne Hospital per the reconciliation template submitted to IHPA was $733.6m. The actual amount submitted to the NHCDC by the Victorian DH totalled $389.0m, an adjustment of $344.6m. This adjustment included the following exclusions:

- Current year work-in-progress – $9.8m
- Costs without accurate and reliable feeder data – $21.5m
- Other non-patient level costed activity – $323.6m, including:
    - non-admitted episodes for which a Tier 2 class could not be provided
    - .non-admitted subacute and aged care.

In addition, work-in-progress of $10.3m was added back to the costing system reflecting patient costs from the previous financial year.

Table 12 below compares the split of patient costed product data from the Royal Melbourne Hospital reconciliation to the IHPA Combo report for Round 15. The Admitted data variance is due to work-in-progress being excluded from Combo.

Royal Melbourne Hospital	Reconciliation	Combo	Variance
Admitted	$365.4m	$347.6m	$17.8m
ED	$23.6m	$23.6m	$nil
Total	$389.0m	$371.2m	$17.8m

Table 12: Royal Melbourne Hospital

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 5 of this report) was included in the Round 15 NHCDC submission except for:
  - Blood products
  - Cost of organ transport.
  - Depreciation.
- Expenditure required to be excluded by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 6 of this report) was excluded from the Round 15 NHCDC submission.

The Royal Women's Hospital

The Royal Women's Hospital is a sole entity health service, and has its own general ledger and audited financial statements. The hospital has its own costing staff that undertake the costing process and prepare the submission to the VCDC.

The total expenditure listed in the Annual Report for 2010/11 amounts to $231.2m. The total amount allocated in the costing process was $167.6m, resulting in an adjustment of $63.6m. This adjustment is accounted for in the following excluded items:

- Capital related expenditures – $34.8m
- Depreciation and amortisation expenses – $16.0m
- Services supported by hospital and community initiatives, including special purpose funds – $12.5m.
- Remaining adjustment – $0.34m which relates to child care costs, sexual assault programs, Newborn Emergency Transport Services and Perinatal Emergency Referral Services; and revenue obtained from the PPF MRI cost centre, the RWH contribution to the VCCC JV account and a Victorian DH grant adjustment.

The total amount submitted to the NHCDC was $116.9m, an adjustment of $50.7m to the total for the costing process. This adjustment included the following exclusions:

- Current year work-in-progress – $6.0m[6]
- Non-admitted episodes for which a Tier 2 class could not be provided – $44.6m
- Other non-admitted NHCDC items – $0.8m
- Unexplained variance – ($0.7m).

Table 13 below compares the split of patient costed product data per the Royal Women's Hospital reconciliation to the IHPA Combo report for Round 15.

[6] Due to the implementation of a new costing system (PPM2) work-in-progress from the prior year (2009-10) could not be brought forward into the costing process.

Royal Women's Hospital	Reconciliation	Combo	Variance
Admitted	$108.3m	$108.3m	$nil
ED	$8.6m	$8.6m	$nil
Total	$116.9m	$116.9m	$nil

Table 13: Royal Women's Hospital

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 5 of this report) was included in the Round 15 NHCDC submission except for blood products and depreciation.
- Expenditure required to be excluded by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 6 of this report) was excluded from the Round 15 NHCDC submission.

The Alfred Hospital

The Alfred Hospital is part of The Alfred Health, which includes the Sandringham and Caulfield campuses. Financial statements and the general ledger are maintained at the health service-level. Patient costing at The Alfred Health is performed by an on-site costing team.

The total expenditure reported in the Annual Report for 2010/11 amounts to $884.4m. The total amount allocated through the costing process was $786.0m, resulting in an adjustment of $98.4m. This adjustment is accounted for in the following excluded items:

- Capital related expenditure items – $1.7m
- Depreciation and amortisation – $61.8m
- Direct research and teaching – $13.5m (based on special purpose funds)
- Special purpose funds not related to patients – $11.3m
- Commercial operations – $9.8m
- Remaining adjustment - $0.3m relates to timing issues with the reporting of depreciation resulting in a variance between the Financial Return and Annual Report figures.

The total expenditure of $786.0m (allocated through the costing process) for The Alfred Health service was allocated across the three campuses, (The Alfred, Sandringham Hospital and Caulfield campus) by campus code. The Alfred Hospital was allocated $553.6m. The total amount submitted to the NHCDC by the Victorian DH amounted to

$429.9m, an adjustment of $123.7m. This adjustment included the following exclusions:

- Current year work-in-progress – $26.9m[7]
- Unmatched records – $0.2m
- Community health – $3.5m
- Non-admitted activity which was not at patient level or for which a Tier 2 class could not be identified – $91.9m
- Radiotherapy – $1.2m

Table 14 below compares the split of patient costed product data per the Alfred Hospital reconciliation to the IHPA Combo report for Round 15.

The Alfred Hospital	Reconciliation	Combo	Variance
Admitted	$364.6m	$364.6m	$nil
ED	$51.5m	$51.5m	$nil
Outpatient	$13.8m	$13.8m	$nil
Total	$429.9m	$429.9m	$nil

Table 14: The Alfred Hospital

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 5 of this report) was included in the Round 15 NHCDC submission except for:
  - Blood products
  - Depreciation
  - Non-surgical costs associated with organ transport and transplantation.
- Expenditure required to be excluded by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 6 of this report) was excluded from the Round 15 NHCDC submission.

[7] See Footnote 6 above.

11 Western Australia

11.1 Review coverage

The following hospitals were reviewed:

- King Edward Memorial Hospital
- Fremantle Hospital
- Rockingham-Kwinana Hospital

In the Western Australia Round 15 NHCDC submission these hospitals accounted for expenditure of $651.6m, or approximately 29% of total reported NHCDC expenditure for Western Australia.

11.2 NHCDC costing process

Financial data and hospital costs

For Western Australia, audited financial statements are produced for the Metropolitan Health Service (MHS). As cost information is recorded in the general ledger at (generally) the AHS-level, and not at the hospital-level, costing teams within each AHS have developed site models that are used to apportion cost centre expenditure to each of the hospitals within the AHS.

Costing process

The preparation of the Round 15 NHCDC submission for Western Australian hospitals involved a two-stage approach using the Trendstar costing system.

Stage one was performed by costing staff within the AHS. Activity data was input to Trendstar; hospital costs were calculated using an extract of the general ledger adjusted for in-scope and out-of scope items, and were input to Trendstar; the costing data was then produced, and the preliminary costing file was provided to the WA Department of Health.

Stage two was performed by costing staff within the WA Department of Health (WA Health), who performed quality assurance and data matching procedures over the costing file, added shared services costs (outside of Trendstar) to the costing file, and submitted the hospital costing file to IHPA.

11.3 Summary of findings

Hospital reconciliations – general observations

The positive findings are as follows:

- ✓ The general ledger used for the costing process was agreed to audited financial statements at the MHS-level.
- ✓ It was possible to trace costs from the general ledger to the costing system and the NHCDC submission data for the selected hospitals. Adequate supporting documentation to substantiate adjusting items was provided to KPMG.
- ✓ A number of data checks are completed at both the AHS- and Department-level.
- ✓ The NHCDC data submitted to IHPA for the selected hospitals could be traced to the Round 15 NHCDC data in Combo, however some minor unexplained variances remained.

Other observations

- The Round 15 NHCDC reconciliation template for the selected hospitals was prepared by WA Health, although without input from the AHS. Item A in the reconciliation was calculated using different cost centre aggregations and allocations to represent the hospital costs compared to the site model of cost centres used by the AHS to represent that hospital. The consequence of this is that the reconciliation submitted to IHPA contains a balancing adjustment item that would otherwise not be required if the AHS-derived expenditure figure was used as the starting point.

Findings by hospital

King Edward Memorial Hospital

King Edward Memorial Hospital forms part of the North Metropolitan Area Health Service (North Metro AHS), which is part of MHS.

Total expenditure for MHS was $3,644.5m for 2010/11 per the audited financial statements. Of this $1,601.2m related to North Metro AHS. After adjustments for recoups ($34.6m) and Public Health ($92.5m) that were applied at the AHS-level, the adjusted expenditure for North Metro AHS was $1,474.1m. Of this amount $195.7m related to King Edward Memorial Hospital.

The general ledger uploaded to Trendstar totalled $199.0m for King Edward Memorial Hospital. Therefore, the variance between the general ledger and Trendstar was $3.3m. This variance is attributable to the deduction of Special Purpose Funds ($0.5m) and interest expense ($0.4m), and the inclusion of the shared services allocation by WA Health ($4.2m).

Compared to the expenditure of $199.0m uploaded into Trendstar, only $176.4m was subsequently patient costed (including $30.1m for Outpatients). The variance of $22.6m is attributable to the following items:

- Mental health – $0.6m
- Community health – $0.08m
- Public health (King Edward Memorial Hospital specific) – $18.2m
- Services to other organisations (King Edward Memorial Hospital specific) – $3.2m
- Other non-hospital products (e.g. outreach program) – $0.5m.

Table 15 below compares the split of patient costed product data per the King Edward Memorial Hospital reconciliation to the IHPA Combo report for Round 15. Based on advice from Visasys, significant portions of the Admitted and Teaching and Research product variances are due to work-in-progress being excluded from Combo. The ED product variance is due to Admitted ED costs being reallocated from the Admitted product to the ED product.

King Edward Memorial Hospital	Reconciliation	Combo	Variance
Admitted	$132.1m	$121.5m	$10.6m
ED	$2.4m	$2.8m	($0.4m)
Teaching and Research	$11.3m	$9.1m	$2.2m
Other	$0.5m	$nil	$0.5m
Total	$146.3m	$133.4m	$12.9m

Table 15: King Edward Memorial Hospital

Fremantle Hospital

Fremantle Hospital forms part of the South Metropolitan Area Health Service (South Metro AHS), which (like North Area AHS) forms part of MHS.

Of MHS' total expenditure of $3,644.5m for 2010/11, $1,654.7m related to South Metro AHS. A series of adjustments were made to this figure at the Area-level prior to arriving at the adjusted expenditure for South Metro AHS of $1,615.3m. These adjustments included:

- Special Purpose Funds – $9.4m
- Excluded P&L account expenditure – $3.8m
- Recoupments – $13.9m
- Services to other organisations – $1.2m
- Prior year capital expenditure – $9.3m
- Interest on loans – $2.0m.

Of the total South Metro AHS expenditure for 2010/11 $484.1m related to Fremantle Hospital.

The general ledger uploaded to Trendstar totalled $495.3m for Fremantle Hospital. Therefore, the variance between the general ledger and Trendstar was $11.2m. This variance is attributable to the inclusion of a shared services allocation by WA Health ($11.2m).

Costing staff perform a quality assurance procedure to check that total expenditure uploaded to Trendstar agrees to total output costs.

Compared to the expenditure of $495.3m uploaded to Trendstar, only $450.9m was subsequently patient costed (including $49.1m for Outpatients). The variance of $44.4m is attributable to the following items:

- Mental health – $10.1m
- Community health – $12.0m
- Public health (Fremantle Hospital specific) – $11.4m
- Rehabilitation – $2.1m
- Continuing care – $2.0m
- Other non-hospital products (e.g. services provided to non-hospital patients) – $6.7m
- Costs without accurate and reliable patient attendance data – $0.09m.

Table 16 below compares the split of patient costed product data per the Fremantle Hospital reconciliation to the IHPA Combo report for Round 15. Similar to King Edward Memorial Hospital, Admitted and Teaching and Research work-in-progress was excluded from Combo and Admitted ED costs were reallocated from the Admitted product to the ED product.

Fremantle Hospital	Reconciliation	Combo	Variance
Admitted	$362.3m	$330.3m	$32.0m
ED	$14.1m	$25.9m	($11.8m)
Teaching and research	$24.5m	$20.7m	$3.8m
Other	$1.0m	$nil	$1.0m
Total	$401.9m	$376.9m	$25.0m

Table 16: Fremantle Hospital

Rockingham-Kwinana Hospital

Rockingham Hospital, with costs for 2010/11 of $143.7m, also forms part of the South Metro AHS.

The general ledger uploaded to Trendstar totalled $146.4m for Rockingham Hospital. Therefore, the variance between the general ledger and Trendstar was $2.7m. This variance is attributable to the inclusion of a shared services allocation by WA Health ($2.7m).

Costing staff perform a quality assurance procedure to check that total expenditure uploaded to Trendstar agrees to total output.

Compared to the expenditure of $146.4m uploaded into Trendstar, only $111.7m was subsequently patient costed (including $8.3m for Outpatients). The variance of $34.7m is attributable to the following items:

- Mental health – $22.5m
- Community health – $3.0m
- Rehabilitation – $2.4m
- Other non-hospital products (e.g. Palcare) – $6.8m

Table 17 below compares the split of patient costed product data per the Rockingham Hospital reconciliation to the IHPA Combo report for Round 15. Explanations for variances are similar to those provided for Fremantle Hospital except that the Admitted product variance is significantly attributable to the reallocation of Admitted ED costs.

Rockingham Hospital	Reconciliation	Combo	Variance
Admitted	$72.0m	$64.4m	$7.6m
ED	$26.0m	$33.0m	($7.0m)
Teaching and research	$4.8m	$3.2m	$1.6m
Other	$0.6m	$nil	$0.6m
Total	$103.4m	$100.6m	$2.8m

Table 17: Rockingham Hospital

Teaching and research expenditure

Cost centres for teaching and research activities are not separately maintained. Instead, the costing team within WA Health identify the teaching and research portion of various cost buckets (e.g. Imaging, Allied Health, Pathology) using allocation statistics provided by the AHS. These costs are then applied to the costing file based on the In-patient fraction (IFRAC), Emergency department fraction (EFRAC) and Outpatient fraction (OFRAC), which is the proportion of the total cost of that line item (in-patent, out-patient, emergency department) to total cost of the hospital.

Included and excluded expenditure

Based on our enquiries of staff:

- Expenditure required to be included by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 5 of this report) was included in the Round 15 NHCDC submission except for Blood Products.
- Expenditure required to be excluded by AHPCS SCP 2.002 *Expenditure in Scope* (detailed in Appendix A, Procedure 6 of this report) was excluded from the Round 15 NHCDC submission.

Work-in-progress

Western Australia did not include end of year work-in-progress in terms of patient activity. For patients admitted prior to the beginning of the year the general principle applied is that costs associated with these patients balance the cost of patients in hospital at the end of the year that are yet to be discharged.

12 Australian Capital Territory

The Australian Capital Territory elected not to participate in the Round 15 NHCDC Independent Financial Review.

Appendices

A Review procedures

#	Procedure	Relevant Patient Costing Standard	Test Objective	Information Sources
1	**Reconciliation Test 1** Obtain supporting documentation and reconciliations for each selected Hospital. Confirm reconciliations by: • Agreeing reconciliation to costing system • Agreeing reconciliation to source financial information system • Agreeing reconciling items (such as additions or exclusions) to supporting documentation • Agree patient activity data submitted to supporting documentation • Agree total costed amounts and patient activity to the Round 14 NHCDC data held by IHPA. • Document exceptions	SCP 1.003 Scope of Hospital Activity	Completeness, Occurrence	• Reconciliation • Supporting documentation • Source documents (including Costing system summary results and FMIS outputs) • Reconciliation of Patient Activity Data • Discussions with relevant personnel

#	Procedure	Relevant Patient Costing Standard	Test Objective	Information Sources
2	**Reconciliation Test 2** Obtain and confirm financial data in reconciliation by • Agreeing General Ledger information to audited financial statements (where possible). Specifically, agree the overall expenditure and the top 5 expenditure items (e.g. wages, superannuation etc). Calculate percentage of expenditure agreed. • Where the general ledger cannot be agreed to audited financial statements, obtain a more recent general ledger download for each hospital and compare total expenditure. Calculate the percentage change. • Document revenue / offset items that are excluded from the general ledger.		Accuracy	• Source documents (including FMIS outputs and audited financial results) • Discussions with relevant personnel
3	**Teaching costs** Determine cost allocation method for calculating teaching costs. Methods that may be used include GL-allocation (i.e. 100% allocation of a cost centre or GL line item to teaching, management estimate, allocation based on a statistic (e.g. student numbers)). Where a number of methods are used, quantify amounts allocated using each method.	SCP 2A.001 Teaching Costs	Accuracy, Classification	• Analysis of cost data and cost drivers • Discussions with relevant personnel

#	Procedure	Relevant Patient Costing Standard	Test Objective	Information Sources
4	**Research costs** Determine cost allocation method for calculating research costs. Methods that may be used include GL-allocation (i.e. 100% allocation of a cost centre or GL line item to teaching, management estimate, allocation based on a statistic (e.g. student numbers)). Where a number of methods are used, quantify amounts allocated using each method.	SCP 2B.001 Research Costs	Accuracy, Classification	• Analysis of cost data and cost drivers • Discussions with relevant personnel
5	***Expenditure in Scope*** **- inclusions** Confirm whether the following types of expenditure have been included from cost data: • Ambulance and patient transport • Area health Services • Blood products • Centralised data report to hospitals • Hospital management • Insurance – building, equipment, medical indemnity, workcover • Organ and tissue donation • Shared services – HR, payroll, finance, procurement and IT. • S100 Drugs For items that are excluded, calculate the % of total hospital expenditure that the item represents	SCP 2.002 Expenditure in Scope	Completeness	• List of expense items included in costing system • Amount of relevant expense items • Total expenditure included in costing system • Discussions with relevant staff

#	Procedure	Relevant Patient Costing Standard	Test Objective	Information Sources
6	***Expenditure in Scope* - exclusions** Confirm whether the following types of expenditure have been excluded from cost data: • Aerial retrieval and Royal Flying Doctors Services • Capital planning • Centralised data services • Chief Medical Officer (State and Territory health Departments) • Clinical Governance – state-wide • Clinical network management • Corporate management (central offices for jurisdiction) • Cross border payments • Health Department executive • Health Policy • Patient Assisted Travel Scheme • Patient Safety Centre • Public Relations – Media Centre • Transition and Aged Care • Life Saving Drug Program • Reimbursement revenue has not offset costs (e.g. PBS, DVA, Health Funds, Cross-Border) Where these items have been included, determine the total cost of the item and calculate the percentage of total expenditure for that item.	SCP 2.002 Expenditure in Scope	Occurrence	• List of expense items excluded from costing system • Amount of relevant expense items • Total expenditure included in costing system • Discussions with relevant staff

#	Procedure	Relevant Patient Costing Standard	Test Objective	Information Sources
7	**Feeder Systems** What percentages of feeder activity are matching to products (e.g. Admitted/Non-Admitted, ED, Teaching/Research)? Document what transactions have been excluded and the reasons for exclusion.	Not applicable.	Completeness, Accuracy, Occurrence	• Discussions with relevant staff • Supporting documentation

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