NSW GOVERNMENT | Health

Data Quality Statement for New South Wales

1. Overview of costing environment

Address the following:

1.1 Who undertakes patient costing in your jurisdiction?

In NSW, patient costing is processed by the costing practitioners within each of the fifteen Local Health Districts and three Specialty Health Networks (Districts/Networks). The NSW Ministry of Health Activity Based Management (ABM) Group Costing Team provides state-wide leadership and coordination of the patient cost data preparation and submission process.

The patient costing submission in NSW is referred to as the District and Network Return (DNR).

The ABM Group is responsible for transforming the DNR submissions into the NHCDC format and submitting the patient cost data to IHPA.

1.2 How often is costing undertaken?

In 2018-19, the DNR was processed twice a year for the July to December 2018 period and then the July 2018 to June 2019 period. The full year DNR data overwrites the six-month patient costing data.

1.3 Which costing systems are in use?

One costing application is in use across all Districts/Networks in NSW. The commercially sourced costing application was implemented in 2012 and regular upgrades are installed. While each District/Network has their own instance of the costing application, all sites are on the same version to facilitate consistency and efficient reporting processes.

1.4 Is there any jurisdiction-wide training/support for costing practitioners? If so, provide details.

There is significant jurisdiction-wide training and support for costing practitioners in NSW.

A Costing Standards User Group (CSUG) meets regularly throughout the year. Each February, there is a three-day workshop that typically reviews the previous year and develops priorities for the coming calendar year. The workshop program includes topics of interest for key costing stakeholder groups, such as Business Managers, who are invited to attend one day of the workshop. Throughout the remainder of the year there are a further six workshops to review progress on agreed priorities, facilitate networking, further develop cost allocation methods and review cost results.

An internal training course is run by the ABM Costing Team each year for new staff and for staff interested in more advanced training. These courses provide both the technical knowledge required to prepare and process the cost data as well as an overview of the importance and use of patient cost data at both the State and National level.

ABM has also engaged UTS Business School to provide intensive cost accounting courses that examine cost accounting principles and techniques and how they can be applied in the healthcare setting.

ABM manages the ongoing refinement of the multi volume publication the NSW Cost Accounting Guidelines (CAG) in consultation with CSUG. The Australian Public Hospital Costing Standards V4.0 provides the foundation for CAG Volume 2: Costing Standards.

1.5 Provide details of any changes from previous year specifically details of improvements in costing process and methodology.

The most significant change resulting in improvements in the costing process and methodology during 2018-19 emanated from a state-wide project initiated in early 2019 to improve the linking of service data, the building block of patient cost data. This project included a state-wide review of the accuracy and linking rates for key services such as imaging, pathology, pharmacy and operating theatre.

The project team identified state-wide and local issues that contributed to the reason services did not link to the appropriate episode. Examples of these issues included services associated with unqualified baby episodes, aggregate NAP clinic activity, encrypted patient numbers and services for external patients. Strategies to improve linking rates for all these issues were developed, tested and documented.

The project team regularly reported to CSUG throughout the year to ensure that proposed strategies and subsequent documentation were sufficiently detailed and provided clear guidance.

The RQ App, a NSW Health costing data quality tool, was enhanced to include specific reports and analysis of services that remained unlinked. The linking results for 2018-19 period were compared with the results from the previous year at a District/Network level to monitor improvement.

The mandatory DNR Audit Program also included enhanced tests specifically focusing on the service linking.

A final report was tabled at the February 2020 CSUG workshop summarising the results of this project. The Report details a significant improvement in linking rates across all services across District/Networks. The report indicates that an additional $50m was more appropriately linked to the patient episodes in the 2018-19 DNR.

2. Submitted cost data

Address the following:

2.1 How many hospitals provided cost data for the Round 23 NHCDC? Provide details about the number of submitting facilities and the changes from prior year (state movement in number of facilities and costs submitted)

Submission Year	Number of Hospitals/Entities	Activity	Expense ($m)
Round 23 (2018-19)	128	11,587,625	$15,094.4
Round 22 (2017-18)	95	11,715,616	$13,897.5
Variance	33	-127,991	$1,196.9

NSW reported an additional 33 establishments in the Round 23 NHCDC submission.

Thirty-two (32) of these establishments are non-admitted mental health services for which the Australian Mental Health Care Classification (AMHCC) phase of care activity and costs were submitted for the first time in 2018-19.

The other establishment included in the NHCDC submission for Round 23 was the Muswellbrook Hospital which moved from being a Block funded hospital to an ABF funded hospital in 2019-20.

2.2 Provide explanation of costed results with explanation of significant movements from prior year.
(e.g. Costs submitted to NHCDC in Round 23 are [$x] which is $[ym] higher than Round 22. The reasons for the change were ...)

The total activity submitted in Round 23 was 11,587,625 records, a slight decrease of 127,991 records (1%) from the Round 22 2017-18 submission of 11,715,616 records.

Activity counts for acute and sub-acute admitted patient episodes increased by 2% and for emergency department episodes by 3%. These increases were offset by a 4% decrease in non-admitted patient activity. The decrease in non-admitted patient activity was primarily driven by two factors:

- The decommissioning of a hospital part way through the year; and
- A decrease in the linkage between the DNR costing dataset and the ABF activity datasets.

This non-admitted patient activity count excludes the non-admitted mental health activity that was submitted for the first time in Round 23. The non-admitted mental health activity was submitted at the AMHCC phase level as opposed to a service event level.

The total cost submitted in Round 23 was $15,094,431,726. This is an increase of $1,196.9m (9%) on the Round 22 submission of $13,897,489,677. There are five key reasons for this overall increase in total cost despite the decrease in total activity:

- The increased acute and emergency department activity accounts for $204.9m (17%) of the increase in total cost;
- The average raw cost for acute and emergency department activity increased by 5% and 4% respectively. This increase in average raw cost contributes a further $508.8m (43%) of the increase in the total cost. Some of this increase in average cost will have been driven by the improved linking of service data;
- The increase in admitted mental health activity as well as an increase in the average raw cost together contribute $182m (15%) of the increased total cost;
- The inclusion of the non-admitted mental health activity for the first time in the Round 23 NHCDC submission accounts for another $261.2m (22%) of the increase in total cost; and
- Finally, the inclusion of costs for all occasions of services for temporal care bundled home delivered service events were included in the Round 23 submission. In Round 22, only the costs that occurred on the date of the bundled service event were included.

2.3 Are there any significant factors which influence the jurisdiction's Round 23 cost data (i.e. jurisdiction wide admission policies, etc). If so, what is the impact on costed output?

No significant factors influenced the Round 23 cost data preparation.

2.4 At a jurisdiction level, did you experience any challenges with costing of specific products in Round 23?

(e.g. Mental health phase of care / other) please describe these challenges and the impact of this)

NSW did not experience any particular challenges with the costing of specific products in Round 23. The implementation of the AHMCC phase reporting highlighted the limitations of comparing previous year with current year results, especially when changes in classifications result in fundamental changes in the product structure and unit of count.

2.5 Describe the quality assurance tests undertaken on the patient cost data.

Multiple quality assurance tests are undertaken at various phases of the patient cost data preparation process:

- Numerous checks are performed when activity data is extracted from the various source systems. These tests primarily examine variables that are critical to the cost allocation process, such as duration of care or treatment. Many of these tests are included in the state-wide tools that are used to ensure consistent patient cost data is produced;
- Numerous tests examining both the compliance with key costing business rules and the plausibility of cost results are performed in the costing application DNR Module. A number of these tests are fatal and must be addressed before a valid patient DNR cost file is produced;
- The NSW DNR submission process includes a draft submission period to enable Districts/Networks to compare their cost results with peers as sometimes issues with cost results are not obvious until they are benchmarked with other facilities; and
- All draft DNR submissions are subjected to a series of cost result tests applied by the ABM Group. The outcome of these tests is made available to all costing officers via a Reasonableness and Quality Application (RQ App).

3. Adherence to the Australian Hospital Patient Costing Standards

Address the following:

3.1 Describe the level of compliance against the Australian Hospital Patient Costing Standards – at the hospital and jurisdiction level.
(e.g. version of AHPCS used; local costing rules applied)

Compliance with the AHPCS Standards for the Round 23 (2018-19) NHCDC submission has improved since the Round 22 (2017-18) NHCDC submission.

NSW Health is fully compliant with the following AHPCS Standards Version 4.0:

Standard 1.1 – Identify Relevant Expenses – General

Standard 2.1 – Create the Cost Ledger – Cost Ledger Framework

Standard 3.1 – Create Final Cost Centres – Allocation of Expenses in Production Cost Centres

Standard 4.1 – Identify Products – Product Types

Standard 4.2 – Identify Products – Information Requirements

Standard 5.1 – Assign Expenses to Products – Final Products

Standard 5.2 – Assign Expenses to Products – Intermediate Products

Standard 5.3 – Assign Expenses to Products – Work in Progress

The inclusion of *Standard 2,1 Create the Cost Ledger – Cost Ledger Framework* as being fully compliant for Round 23 follows a systematic and comprehensive review of the cost ledger cost centre mappings to the NHCDC cost centres for all

Districts/Networks. This review also included an assessment of District/Network compliance with NSW cost ledger naming conventions as detailed in the CAG.

3.2 State any exceptions to AHPCS and explanations.

NSW Health is partially compliant with the following AHPCS Standards Version 4.0, the reason for which is articulated below:

Standard 1.2 – Identify Relevant Expenses – Third Party Expenses – Most third-party expenses are included in the cost ledger for the NHCDC. However, expenses such as pathology costs for private and compensable patients that are held centrally are not distributed to Districts/Networks for inclusion in the DNR cost ledgers. Medical expenses for private patients recorded in trust accounts or non-operation accounts are also not included in the cost ledger.

Standard 1.3 – Identify Relevant Expenses – Offsets and Recoveries – A review process needs to be undertaken to ascertain the level of compliance with this standard across Districts/Networks.

Standard 2.2 – Create the Cost Ledger – Matching Cost Objects and Expenses – While the range and extent of service data expands with each DNR submission, not all Districts/Networks have the same levels of service data to match expense with the relevant cost objects.

Standard 3.2 – Create Final Cost Centres – Allocation of Expenses in Overhead Cost Centres – In some cases the preferred overhead allocation statistic detailed in the CAG is not used for the allocation of overhead expense as the allocation statistic data is not readily available.

Standard 6.1 – Review and Reconcile – Data Quality Framework – While NSW has a comprehensive data quality framework in place as described earlier, a systematic review of Product Areas that do not have service data has not been recently undertaken. This review will be undertaken during 2020.

Standard 6.2 – Review and Reconcile – Reconciliation to Source Data – While an extensive expense and activity reconciliation process is embedded in the DNR Submission process, further reconciliation of patient activity to the source systems is required.

3.3 Provide details of any specific areas of deviation from the AHPCS and describe the alternative treatment used.
(e.g. *areas of common challenge which may warrant explanation of treatment may include: capital and depreciation, teaching and training, research, posthumous organ donation, allocation of medical costs for private and public patients, mental health, ICU, blood products, PTS, WIP).*

NSW notes some deviation from the Costing Guideline 1 – Critical Care. Many critical care services in NSW hospitals have the critical care and the step-down beds in the one ward. Examples of this include ICU/HDU or CICU/CCU wards. Typically, these services have one cost centre and one ward set up in the Patient Administration System (PAS) with two or more bed types to distinguish the ICU (CICU) hours/bed days separately to the HDU (CCU) hours/bed days. The bed type is used to calculate ICU hours.

The final cost allocation reflects appropriate nursing ratios such as 1:2 for ICU/HDU patients. In some instances where a patient only has HDU hours, the cost will be reported under the Critical Care cost centre as the cost centre maps to Critical Care, even though there are no reported ICU hours. Additionally, only facilities with Level 3 ICUs map their cost centre to Critical Care, even though locally they may use the ICU bed type.

4. Governance and use of cost data

Address the following:

4.1 How is public hospital patient cost data used at the hospital/district or network and jurisdiction level?

Patient cost data is used extensively across all levels of the NSW Health organisation for a range of purposes such as:

- The development of the NSW State Price for the annual budget, ABF, ABF Block, State only Block components;
- Informing the distribution of local budgets to hospitals within a District/Network;
- The development of the NSW Funding Model for small rural hospitals;
- Development of NSW Funding Model adjustors for high cost procedures such as peritonectomies;
- Informing service contract negotiations with external providers;
- NSW Treasury Outcome Budgeting reporting;
- Reporting to external bodies such as the Australian Institute of Health and Welfare (AIHW) and the Productivity Commission; and
- Monthly financial performance reporting.

The patient cost data is loaded into the ABM Portal to enable:

- Development of state-wide and local clinical service plans and business cases;
- Clinical variation analysis and benchmarking activities at a hospital, specialty, product, diagnosis or procedure code level; and
- The development of Roadmap or Clinical Redesign strategies to address length of stay and average cost performance and to improve models of care service delivery.

4.2 Do the LHNs or Jurisdiction submit patient cost data to any other jurisdictional or national collections? If so, provide details.

A number of Districts/Networks participate in independent and specialty/service based benchmarking consortia.

4.3 In terms of costing practices, what is the level of consistency and standardisation across the jurisdiction? *(e.g. local forums; guidelines)*

Multiple strategies are in place to support consistent and standardised costing practices across NSW, including:

- The ongoing refinement of Volumes 2 and 3 of the NSW Cost Accounting Guidelines which details all the NSW Business Rules and Technical Specifications for the DNR respectively. These documents include prescribed costing system setup and cost allocation methods. This publication was first published in 2012-13;
- The distribution of all costing resources and tools through a web-based portal to ensure convenient access by all costing officers;
- The ongoing maintenance and refinement of standard data extract and transformation tools for episode data from state-wide and local data warehouses and state-wide clinical information systems;

- The ongoing maintenance and refinement of standard data extract and transformation tools for operating theatre, pharmacy, medical imaging, pathology, blood products, emergency and non-emergency patient transport services;
- The Draft DNR submission period enables the identification, investigation and where necessary the correction of cost results prior to finalisation of the DNR submission;
- The ABM Group conducts teleconferences with the Chief Executive of each District/Network to review cost results prior to the finalisation of the DNR submission, and
- A mandatory DNR Audit Program has been implemented by the District/Network Internal Audit Teams. The audit tests are refined each year by the ABM Group in consultation with CSUG and the Internal Auditors. All Districts/Networks are required to submit an Attestation Certificate and Audit Report detailing audit findings.

4.4 What is the process for review and approval the data before submission to NHCDC?

The process for review and approval of the NHCDC submission includes a number of steps:

- The ABM Costing Team reviews the NHCDC Data Request Specification and updates any mapping requirements to transform the DNR data to the NHCDC submission data;
- District/Network Audit Attestation Certificates and Audit Reports are reviewed by the ABM Group;
- The results of the cost data and ABF activity data linkage are reviewed;
- The Data Validation and Quality Assurance reports provided by IHPA are reviewed and actioned as required; and
- An activity and cost reconciliation summary is prepared for review and approval by the Executive Director ABM prior to notification of finalised submission.

Declaration

All data provided by New South Wales Health to Round 23 (2018-19) of the National Hospital Cost Data Collection (NHCDC) submitted to the Independent Hospital Pricing Authority has been prepared in adherence with the Australian Hospital Patient Costing Standards (AHPCS) Version 4.0 as described in Section 3 of this statement.

Data provided to this submission has been reviewed for adherence to the AHPCS Version 4.0 and is complete and free of known material errors.

Section 3 provides details of any qualifications to our adherence to the AHPCS Version 4.0.

Assurance is given that to the best of my knowledge the data provided are suitable to be used for the primary purpose of the NHCDC, which includes development of the National Efficient Price.

Signed:

Elizabeth Koff
Secretary, NSW Health