Independent Hospital Pricing Authority

National Hospital Cost Data Collection Report

Public Sector, Round 23 (Financial Year 2018-19)

February 2021

IHPA

National Hospital Cost Data Collection Report: Public Sector, Round 23 Financial Year 2018-19

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Note to readers

The Round 23 NHCDC Report presents cost information related to Australia's public hospital activities. Due to differing methodologies and data sources used, the costs reported here may differ from cost data published by other organisations. Such differences apply to data presented in the following Australian Institute of Health and Welfare (AIHW) report series: *Health expenditure Australia; Costs of acute admitted patients in public hospitals;* and *Australian Hospital statistics*. The reader is advised to take care when comparing these data.

1. Executive Summary

1.1 Purpose of NHCDC report

This report presents results from the Round 23 National Hospital Cost Data Collection (NHCDC). It aims to summarise the expenditure within Australia's public hospitals for the financial year 2018-19 as submitted by jurisdictions to the Independent Hospital Pricing Authority (IHPA).

IHPA publishes a new edition of the NHCDC Report each year. The report allows comparisons across jurisdictions and identifies changes in patient activity costs over time.

Specifically, the Round 23 NHCDC Report provides details about the average cost of patient activity across Australia's jurisdictions. The results are presented by the following five broad patient activity streams:

- Admitted acute activity
- Subacute activity
- Non-admitted activity
- Emergency activity
- Mental health activity

1.2 Participation

For Round 23, IHPA received data from 507 hospitals nationally. Table 1 shows the breakdown of hospitals by jurisdiction.

Between Round 22 and Round 23, the number of unique hospitals increased by 11.9 per cent. This includes six hospitals that submitted data previously, however, did not report data for Round 23.

Nationally, 60 new hospitals reported cost data for Round 23, of these, 42 were mental health service hospitals.

Table 1: Number of hospitals, by jurisdiction, Round 21-23

	Number of participating hospitals		
Jurisdiction	Round 21	Round 22	Round 23
NSW	95	95	128
Vic	79	79	81
Qld	195	196	210
SA	20	20	20
WA	33	33	36
Tas	22	23	23
NT	5	5	6
ACT	2	2	3
National	**451**	**453**	**507**

1.3 Expenditure

In Round 23 of the NHCDC submission, total hospital expenditure for the 2018-2019 financial year was $50.65 billion. This represents a 7.4 per cent increase over the total for Round 22 ($47.17 billion).

Table 2 presents the total hospital expenditure across three NHCDC rounds. While the increase in Round 23 national reported expenditure is 0.4 per cent less than the increase in Round 22, the share of this expenditure at the jurisdictional level has remained consistent. In each round, NSW, Queensland and Victoria have collectively submitted around 75 per cent of the national hospital expenditure.

Table 2: Total expenditure, by jurisdiction, Round 21-23

Jurisdiction	Round 21		Round 22		Round 23	
	Total Expenditure	% of Total Expenditure	Total Expenditure	% of Total Expenditure	Total Expenditure	% of Total Expenditure
	($m)	(%)	($m)	(%)	($m)	(%)
NSW	12,757	29	13,753	29	14,695	29
Vic	9,818	22	10,723	23	11,619	23
Qld	10,117	23	10,851	23	11,635	23
SA	3,345	8	3,769	8	4,082	8
WA	4,860	11	4,955	11	5,230	10
Tas	948	2	1,137	2	1,238	2
NT	919	2	965	2	1,047	2
ACT	1,011	2	1,013	2	1,108	2
Total	**43,775**	**100**	**47,166**	**100**	**50,653**	**100**

1.4 Summary of results

In Round 23 NHCDC submissions, there were 35,874,680 patient encounters across all hospital activity streams at Australian public hospitals.

In Australia's public hospitals in 2018-19, on an average day:

- 17,021 patients were admitted to hospital for acute care
- 56,798 patients had a non-admitted encounter
- 22,424 patients presented to an emergency department

Total expenditure for admitted acute, was the highest at $31.2 billion for 6.2 million of activity, representing a 6.2 per cent increase in expenditure over Round 22 ($29.4 million for 6.0 million activities).

For non-admitted, there were a total of 20.7 million service events with a total expenditure of $6.9 billion, representing an 1.0 per cent increase in expenditure over the Round 22 expenditure ($6.8 billion for 21.5 million service events).

Subacute and non-acute care represented 231,385 episodes. Northern Territory reported the highest average cost for Subacute ($52,050 against the national average cost of $13,974).

For Mental health data, Round 23 represents 121,079 phases and 15,561 episodes in the admitted setting with a total cost of $2.5 billion, and 193,875 community phases with a total cost of $696 million. IHPA received 3.5 times more community health phases than Round 22, making it the most significant increase in activity (with only 2 times the increase in total cost). Mental health data also includes 163,399 ungrouped mental health activity with a total cost of $57 million.

This report provides the average cost information for all hospital activity captured by the different IHPA classifications.

Table 3 summarises these results by presenting the average cost at the activity stream level. While each activity stream is broad and represents a wide variety of hospital procedures and services provided, the categories enable the reporting of useful summary statistics.

Table 3: Summary NHCDC results by activity stream, Round 23

Activity stream	Number of Hospitals	Number of Episodes	Total Expenditure	Average Cost per Episode	Per cent Change in Average Cost Since Round 22
			($m)	($)	(%)
Admitted Acute	346	6,212,682	31,233	5,027	2.9
Emergency Department	276	8,184,682	5,991	732	3.8
Non-Admitted	332	20,731,176	6,890	332	4.9
Subacute	337	231,385	3,233	13,974	4.3
Mental Health					
Admitted Mental Health	*222*	*136,640*	*2,473*		
Community Mental Health	*123*	*193,875*	*696*		
Ungroupable	*37*	*163,399*	*57*		
Other activity	201	20,841	79.0	3,770	31.5

Data, on changes to the average costs for all activity streams since Round 22 is provided in Section 3.1.

2. Introduction

2.1 Background and purpose of the NHCDC

The National Hospital Cost Data Collection (NHCDC) is an annual collection of public hospital cost data in Australia. The collection matches patient level activity data with the corresponding resources utilised by the hospital in administering care for the patient.

This collection was established in 1996 with the primary aim of providing Australian governments and the health care industry with a nationally consistent method of costing all types of hospital activity related to the care of patients.

The health departments of Australia's states and territories submit their cost data to IHPA. Taken together, the collection represents the primary source of information about the cost of treating patients in Australian hospitals.

IHPA was established under the *National Health Reform Act 2011*, assumes responsibility for the governance of the NHCDC. Through the national health reform process, a range of developments to the NHCDC have been implemented, including data quality controls, the

introduction of a submission portal and developments in the Australian Hospital Patient Costing Standards (AHPCS) [1]. These improvements have all provided increased confidence in the collection for the purpose of national reporting.

Each round, jurisdictions cost hospital activity according to nationally consistent methods and submit this data to IHPA, who collates this data to produce a national dataset.

2.2 The NHCDC and the National Efficient Price

Once IHPA finalises the NHCDC dataset, it is used to develop the National Efficient Price (NEP). The Round 23 NHCDC contains hospital cost data for the 2018-19 financial year and IHPA will use it to inform the NEP 2021-22 Determination.

The NEP is central to the commonwealth government's funding of public hospital services via *activity based funding*. It follows that a robust NHCDC dataset is essential for effective government funding of hospitals in Australia.

Activity Based Funding (ABF) is the process by which hospitals are paid for the volume and complexity of patients they treat. ABF takes into account the fact that some patients are more complicated to treat than others. This type of funding model aims to improve the value of public investment in hospital care, improve transparency of funding, ensure a sustainable and efficient network of public hospital services, and provide a tool to benchmark the cost of public hospitals.

The annual NEP and National Efficient Cost (NEC) determine the amount of funding the Commonwealth Government contributes to public hospitals. The funding is then distributed by the Administrator of the National Health Funding Pool.

2.3 Scope and reporting of the Round 23 NHCDC

The data in scope for the NHCDC includes all patient level activity for all public hospital facilities across Australia, and the costs incurred by the hospital in relation to this activity in financial year 2018-19 (Round 23). For all in-scope admitted activity, the episode of care must have finished before the end of the financial year.

For Round 23, IHPA improved its data linking by using the care type field provided in the activity data, submitted using the Activity Based Funding Data Request Specifications, to determine the streams. This replaces the previous methodology of using IHPA defined product types. This change in methodology to determine fields led to movement within streams for Round 22 and 21. Jurisdictions were notified of the changes this may have caused.

2.4 Reporting requirements

To ensure consistency in the approach to costing nationally, NHCDC data is costed in accordance with the Australian Hospital Patient Costing Standards Version 4.0 (the Standards), available on IHPA's website.

The Standards prescribe the set of line items and cost centres used for mapping hospital costs in the costing process, to ensure that there is a consistent treatment of costs between hospitals.

[1] https://www.ihpa.gov.au/publications/australian-hospital-patient-costing-standards-version-40

These costs are allocated to, and reported under, the NHCDC defined 'cost buckets'[2]. Cost buckets represent different combinations of the NHCDC line items and costs centres and can be considered as cost pools within the hospital.

Please refer to the Standards for the reference tables of line items and cost centre groups. Costed results are produced at the episode level, per cost centre and per line item. These results are provided to IHPA and are collated and analysed to produce this report.

2.5 Classifications

IHPA uses classifications to categorise, cost and price hospital activity.

Hospital activity relates management of (diagnostics and interventional) and the resources used by the patient in relation to their treatment. Classification systems are used to describe activity related to the following types of patient care: Admitted acute care, subacute and non-acute care, non-admitted care, emergency care, mental health care.

Each classification system is comprised of codes that provide clinically meaningful ways of relating the types of patients treated by a hospital to the resources required.

Effective clinical classification systems ensure that hospital data is grouped into outputs reflective of their resource use. Table 2 describes the different types of activity streams (i.e. patient care types) and the associated classification applied by IHPA for funding purposes. The NHCDC Report uses these activity streams to present the cost data.

[2] Tab 12 of the Round 23 Data Request Specifications includes the cost bucket matrix for Round 23: https://www.ihpa.gov.au/sites/default/files/publications/national_hospital_cost_data_collection_-_data_request_specifications_round_23.xlsx

Table 4: IHPA classifications for key activity collections, Round 23 NHCDC

Activity Stream	Description	Classification
Admitted acute care	Admitted acute care is provided to patients who are formally admitted to hospital to receive active but short-term treatment with a goal to: • cure, treat or relieve symptoms of illness or injury • reduce severity of an illness or injury • perform surgery • perform diagnostic or therapeutic procedures • manage childbirth	Australian Refined Diagnosis Related Groups (AR-DRG) Version 10
Subacute and non-acute care	Specialised multidisciplinary care in which the primary need for care is optimisation of the patient's functioning and quality of life. Subacute care includes the following care types: • Rehabilitation care • Palliative care • Geriatric evaluation and management (GEM) care • Psychogeriatric care Non-acute care relates to maintenance care in which the treatment goal is to support a patient with impairment, activity limitation or participation restriction due to a health condition.	Australian National Subacute and Non-Acute Patient (AN-SNAP) classification Version 4
Non-admitted care	Services provided to patients who do not undergo a formal admission process and do not occupy a hospital bed. Includes: • Hospital outpatient clinics • Community based clinics • Patients' homes	Non-admitted Tier 2 Classification Version 5
Emergency care	Services provided to patients in a hospital's emergency department	Urgency Related Groups (URG) Version 1.46
Mental Health care	Mental Health services provided to patients. Includes services provided both in admitted and community settings.	Australian Mental Health Care Classification (AMHCC) v1.0
Teaching Training and Research	Teaching and training activities which occur in public hospital services.	Australian Teaching and Training Classification (released 1 July 2018)

2.6 Admitted activity reporting scope

Work in progress patients

A work in progress (WIP) patient is one that is not discharged at the end of the financial year. For reporting Round 23 of the NHCDC, WIP patients were considered in-scope for reporting if they were admitted in the previous financial year (2017-18) and discharged in the reporting period (i.e. the 2018-19 financial year). This is consistent with the reporting for Rounds 21 and 22 to include patients admitted in the previous year. This approach is due to improvements in the quality of patient cost data reported by jurisdictions in the Data Quality Statements (DQS) (Appendix A).

The Round 23 admitted acute cost weight table excludes inpatients admitted prior to 1 July 2017.

Unqualified baby adjustment

IHPA includes the costs associated with unqualified babies (UQBs) on an adjusted basis. Unqualified babies are those without care interventions following birth, and are less than ten days old when they are discharged. Unqualified babies with lengths of stay over ten days incur 'qualified' days which need to be recorded for the activity data submission within the newborn (NB) care type.

IHPA links costs associated with UQBs to the mother's separation. This results in UQB activity being removed from the newborn (NB) care type and the costs transferred from the newborn care to the mother's admitted care separation.

2.7 Independent Financial Review

The Independent Financial Review (IFR) is a data review, performed by an independent consultancy, based on a sample selection of hospitals within each jurisdiction. Activity and financial data is reviewed from source systems within hospitals and followed through the costing and submission process, leading to its inclusion in the national cost data set. The Independent Financial Review report is typically published on IHPA's website each year alongside the NHCDC Report.

The Round 23 IFR was not undertaken due to the impact of COVID-19 pandemic on states, territories and health services. However, IHPA has undertaken a thorough quality assurance process on the Round 23 NHCDC data to ensure the data set is robust and fit for purpose to be used in developing the National Efficient Price (NEP). The Pricing Authority has the confidence with the national data set notwithstanding the absence of the IFR.

2.8 The Australian Hospital Patient Costing Standards

The Australian Hospital Patient Costing Standards (AHPCS) were developed through extensive consultation with jurisdictions and stakeholders. The key objective of the AHPCS is to provide direction for hospital patient costing using the standards for specific elements of the costing process and reporting requirements.

The AHPCS Version 4.0 comprises:

- Part 1: Standards – provides costing principles
- Part 2: Business Rules – provides practical guidance on how Standards are translated into action
- Part 3: Costing Guidelines – provides step-by-step guidance on how to cost particular services

The Standards also prescribe the set of line items and cost centres used for mapping hospital costs in the costing process, to ensure that there is a consistent treatment of costs between hospitals. These costs are allocated and reported under the NHCDC-defined 'cost buckets'. Cost buckets represent different combinations of the NHCDC line items and costs centres and can be considered as cost pools within the hospital

Please refer to the Standards for the reference tables of line items and cost centre groups. Costed results are produced at the episode level, per cost centre and per line item. These results are provided to IHPA and are collated and analysed to produce this report

The standards can be accessed through the following links:

https://www.ihpa.gov.au/publications/australian-hospital-patient-costing-standards-version-40

3. Overview

3.1 National picture

In Round 23, the NHCDC submission included 507 public hospitals, representing an increase of 54 hospitals (11.9 per cent) from Round 22.

Between Round 22 and 23, the total national expenditure grew from $47.17 billion to $50.65 billion resulting in an increase of 7.4 per cent. This expenditure represents 35,874,680 patient-level encounters across all hospital activity streams.

The average cost per episode for admitted acute care for Round 23 was $5,027, an increase of 2.9 per cent over Round 22 ($4,885), which recorded an increase of 1.9 per cent over Round 21 ($4,792).

The average cost for emergency department presentation for Round 23 was $732, an increase of 3.8 per cent over Round 22 ($705), which recorded an increase of 5.9 per cent over Round 21 ($666).

Non-admitted care average cost per service event for Round 23 was $332, an increase of 4.9 per cent over Round 22 ($317), which recorded an increase of 2.6 per cent over Round 21 ($309).

The average per admitted episode cost of subacute care for Round 23 was $13,974, an increase of 4.3 per cent over Round 22 ($13,393), which recorded a decrease of 4.2 per cent over Round 21 ($13,987).

For Mental health data, all jurisdictions except Western Australia (WA), Northern Territory (NT) and Australian Capital Territory (ACT) submitted data at a phase level. New South Wales (NSW), Victoria and Tasmania submitted community data at a phase level for the first time in Round 23. On the contrary, ACT's admitted average cost increased by approximately 3.5 times (from $6,680 in Round 22 to $22,670 in Round 23). This increase is due to change in methodology from reporting on phases in Round 22 to reporting on episodes in Round 23. However, this change did not influence the average cost for mental health as ACT's mental health activity only accounts for 0.5% of the total mental health activity.

3.2 Costed activity

To report on the NHCDC's level of completeness, IHPA examines the linkage between the costed patient activity and activity record data submitted to IHPA (using the Activity Based Funding Data Request Specifications[3]). IHPA receives the following types of episode level data:

- Cost data, submitted annually via the IHPA data portal, which contains detailed information about the actual costs associated with a patient's episode.

[3] https://www.ihpa.gov.au/what-we-do/abf-data-request-specifications-2018-19

- Activity data, submitted quarterly in line with data set specifications unique to each activity stream[4]. From these data, patient episodes are categorised according to IHPA's classifications which represent each of the activity streams.

When both activity and cost data relating to a particular patient episode are submitted, IHPA links the data. 'Costed Activity' refers to this linkage. The 'per cent of Costed Activity' represents the number of public sector episodes in the activity data with costs submitted via the NHCDC.

The percentage of submitted activity data with matching cost data remains consistent from Round 21 to 23 for the acute admitted, subacute and emergency department activity streams. In Round 23, 96 per cent of the admitted acute activity data had matching cost data.

Table 5 shows the completeness of the NHCDC data for all activity streams. This is represented by the percentage of activity with costs over the past three rounds.

Table 5: Percentage of costed activity, Round 21-23

Activity stream	Round 21	Round 22	Round 23
	(%)	(%)	(%)
Acute admitted	96	96	96
Subacute	69	66	68
Emergency Department	92	90	92
Non-admitted	57	73	64
Admitted Mental Health			93
Community Mental Health			23

3.3 Line items and cost buckets

Hospitals submit cost data to the NHCDC according to line items and cost centres, which IHPA combines to create cost buckets.

Line items represent types of costs (e.g. salaries and wages or goods and services) incurred by hospitals which are reported on in the general ledgers of hospitals.

Cost centres represent departmental cost, objects within a hospital that relate to a particular function of the hospital – for example, the hospital operating room.

Further information relating to the Round 22 NHCDC line items and cost centres are available in costing standards[5].

IHPA combines the line items and cost centres to create cost buckets. Cost buckets can be considered as cost pools within the hospital. Figure 1 presents the NHCDC cost bucket matrix for Round 23, which shows how costs are organised into buckets.

[4] For more information about IHPA's hospital activity collection visit: https://www.ihpa.gov.au/what-we-do/data-collection
[5] https://www.ihpa.gov.au/publications/australian-hospital-patient-costing-standards-version-40

Figure 1: Round 23 NHCDC cost bucket matrix

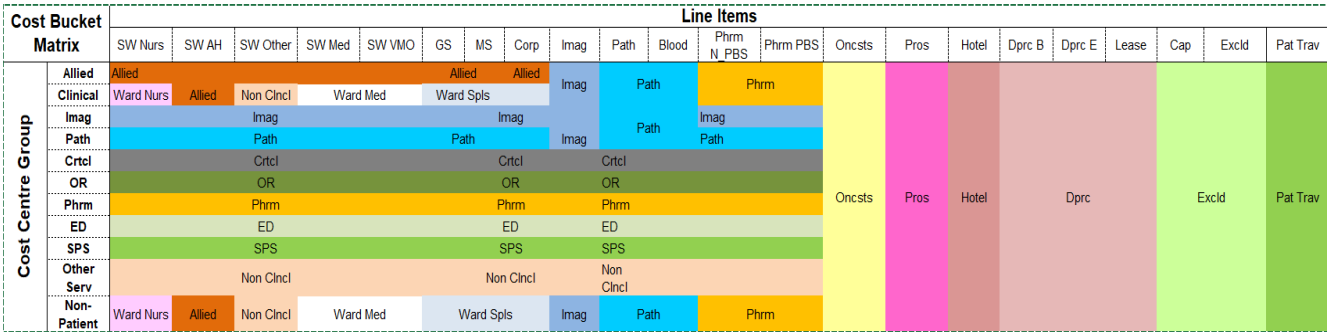

Table 6 presents the total average cost (in dollars) for each line item by each activity stream. In all streams, the line items linked to salaries and wages accounted for approximately 61.1 per cent (Acute) to 72.1 per cent (Mental Health) of all costs of the respective streams. Within the salary and wages category, some variations existed in the share of nursing salary across different streams. For example, nursing costs accounted for 48.1 per cent of salary and wages costs for mental health, but made up 26.2 per cent of non-admitted care salary and wages costs.

The share of salary costs attributed to allied health is higher for non-admitted care at 19.9 per cent compared to emergency department allied health salary at 4.9 per cent.

Table 6: National average cost per line item, by activity stream, Round 23

Line Item	Acute	Subacute	Emergency Department	Non-admitted	Mental Health	
					Admitted	Community
	($)	($)	($)	($)	($)	($)
Salary & Wages Nursing	1,388	4,584	167	54	6,845	868
Salary & Wages Medical (nonVMO)	758	1,530	176	57	2,410	427
Salary & Wages Medical (VMO)	208	265	26	10	479	97
Salary & Wages Allied Health	194	1,425	23	41	932	896
Salary & Wages Other	522	1,833	81	43	2,147	462
On-costs	365	1,272	53	23	1,602	294
Pathology	102	100	34	7	120	4
Imaging	27	32	21	2	19	1
Prostheses	148	7	0	1	1	0
Medical supplies	256	236	17	10	151	11
Goods and services	450	1,299	70	33	1,762	370
Pharmaceuticals PBS	64	38	3	25	20	5
Pharmaceuticals nonPBS	139	175	6	7	161	22
Blood	38	13	2	2	2	0
Depreciation building	102	283	15	8	429	76
Depreciation equipment	46	64	6	4	66	11
Hotel	151	632	14	4	741	27
Corporate	24	61	5	2	106	
Lease	15	44	2	1	43	10
Patient Travel	31	80	11	1	66	9
Total ($)	**5,027**	**13,974**	**732**	**332**	**18,102**	**3,591**

At the cost bucket level, the Ward Nursing cost bucket accounted for the biggest share of the costs for the admitted acute (18.7 per cent of costs), subacute (32.4 per cent) and mental health (33.3 per cent) activity streams. Similarly, the Ward Medical cost bucket accounted for a high share of costs in all activity streams except the emergency department.

Table 7 presents the total average cost (in dollars) for each cost bucket by each activity stream.

Table 7: National average cost per cost bucket, by activity stream, Round 23

Cost Bucket	Acute	Subacute	Emergency Department	Non-admitted	Mental Health	
					Admitted	Community
	($)	($)	($)	($)	($)	($)
Ward Medical	592	1,755	9	59	2,816	522
Ward Nursing	941	4,534	7	48	6,542	859
Allied Health	156	1,687	4	40	881	882
Non Clinical	330	1,570	7	34	2,001	454
On-costs	365	1,272	53	23	1,602	294
Pathology	183	149	45	15	154	21
Imaging	123	108	73	16	54	3
Prosthesis	148	7	0	1	1	0
Ward Supplies	369	1,386	9	34	1,880	377
Pharmacy	213	353	4	34	325	38
Critical Care	408	12	0	0	208	0
Operating Room	774	27	1	6	98	0
Patient Travel	31	80	11	1	66	9
Special Procedure Suite	64	9	0	5	27	1
Emergency Department	14	0	471	0	169	8
Hotel	151	632	14	4	741	27
Depreciation	163	392	24	12	537	97
Total ($)	**5,027**	**13,974**	**732**	**332**	**18,102**	**3,591**

4. Admitted acute activity

An admitted acute care patient separation represents a formal admission to hospital to receive short-term treatment. This includes treating illnesses or injuries, performing surgery or diagnostic procedures.

Of the six activity streams, the admitted acute care stream accounts for the major share of all hospital costs: in Round 23, $31.23 billion of hospital costs were associated with admitted acute care separations (Table 3). Admitted acute care has the most developed classification system[6], which in turn generates the most robust cost data results.

Table 8 provides a summary of admitted acute care average cost per separation for Round 22 and 23 NHCDC by jurisdiction.

[6] Australian Revised –Diagnosis Related Groups Version 10.0

Table 8: Admitted acute care summary Round 22-23, by jurisdiction

Jurisdiction	Round 22				Round 23			
	Average cost per sep	Same-day (SD) as % of all seps	Average length of stay	Average length of stay– ex. SD	Average cost per sep	Same-day (SD) as % of all seps	Average length of stay	Average length of stay– ex. SD
	($)	(%)	(days)	(days)	($)	(%)	(days)	(days)
NSW	5,267	47.9	2.9	4.6	5,443	48.4	2.9	4.6
Vic	4,282	61.3	2.2	4.2	4,505	61.3	2.2	4.1
Qld	4,523	58.8	2.1	3.6	4,542	60.4	2.1	3.7
SA	6,032	51.2	2.7	4.4	6,345	52.0	2.6	4.4
WA	5,827	59.3	2.2	3.9	5,864	60.0	2.2	3.9
Tas	5,772	54.1	2.7	4.6	5,940	54.8	2.6	4.6
NT	3,696	71.5	1.9	4.3	3,695	73.0	1.9	4.3
ACT	5,319	54.0	2.6	4.4	5,690	53.0	2.6	4.4
National	**4,885**	**56.3**	**2.4**	**4.2**	**5,027**	**57.0**	**2.4**	**4.2**

4.1 Average cost per weighted separation

The average cost per acute separation in Round 23 is $5,027 (representing a 2.9 per cent increase from Round 22). The average cost at the jurisdiction level varied from $3,695 (Northern Territory) to $6,345 (South Australia). The variation in average cost is caused by the admission policies of the jurisdictions and the complexity of the treatment required and other factors such as location and age.

To compare the average cost of admitted acute care separations between jurisdictions, the complexity of each jurisdiction's work profile should be considered. To do this, IHPA creates *weighted separations*. A weighted separation considers the complexity of the acute activity each type of separation relative to the average of all activity for the year. The level of complexity is based on the resources required to treat that patient.

Admitted acute cost weight tables are included in the appendix of this report. These tables include the cost weights for all Diagnosis Related Groups (DRGs) in Round 23, which are used to compare resource utilisation based on the national level.

The average cost per separation is $5,027 has a weight of 1.0. In Round 23, a single heart transplant patient separation[7], for example, corresponds to 33.16 weighted separations[8]. In contrast, a single colonoscopy patient separation[9] corresponds to 0.48 of a weighted separation. The difference reflects the significantly greater complexity associated with a heart transplant operation.

By summing the weighted separations for each jurisdiction, we can compare the volume of jurisdictions' acute admitted activity.

Table 9 compares the average cost and average cost per weighted separation by jurisdiction. The *'average cost per weighted separation'* accounts for the relative complexity of each

[7] DRG: F23Z
[8] This figure is also referred to as the cost weight. Cost Weights are included for all acute admitted care separation types in the Appendix Tables.
[9] DRG: G48A, G48B

jurisdiction's work profile. If a jurisdiction's *average cost per weighted separation* is lower than its average cost, the jurisdiction's hospital activity comprised a higher proportion of complex Diagnosis Related Groups.

The Northern Territory had the biggest variance, with a low average cost ($3,695) and a high average cost ($6,518) per weighted separation. This reflects that the complexity of separations is quite low relative to the national case-mix.

Table 9: Admitted acute average cost per weighted separation Round 23, by jurisdiction

Jurisdiction	Number of separations	Number of weighted separations	Complexity factor (1)	Average cost per separation	Average cost per weighted separation
				($)	($)
NSW	1,663,415	1,850,211	1.11	5,443	4,894
Vic	1,724,577	1,636,996	0.95	4,505	4,746
Qld	1,478,969	1,399,796	0.95	4,542	4,799
SA	387,907	425,696	1.10	6,345	5,782
WA	547,445	547,947	1.00	5,864	5,859
Tas	127,994	135,714	1.06	5,940	5,602
NT	173,864	98,553	0.57	3,695	6,518
ACT	108,511	117,769	1.09	5,690	5,243
National	**6,212,682**	**6,212,682**	**1.00**	**5,027**	**5,027**

5. Subacute activity

Subacute and non-acute care patient separations represent the delivery of a specialised care service that is related to the optimisation of the patient's functioning and quality of life. This includes rehabilitation and palliative care.

In Round 23, $3.23 billion of hospital costs were associated with subacute care separations (Table 3 and 5), representing 6.4 per cent of all hospital costs. The average cost per separation was $13,974 with all salary and wages costs comprising 69 per cent of the average separation cost for this stream. The average cost for a subacute care separation at the jurisdiction level varied from $10,669 (New South Wales) to $52,050 (Northern Territory).

Table 10 provides a summary of palliative care episodes and phases of care submitted to the Round 22 and 23 NHCDC by jurisdiction.

Table 10: Palliative phase of care summary Round 22-23, by jurisdiction

Jurisdiction	Round 22				Round 23			
	Number of episodes	Number of phases	Average cost per episode	Average cost per phase	Number of episodes	Number of phases	Average cost per episode	Average cost per phase
			($)	($)			($)	($)
NSW	14,150	31,099	11,498	5,232	15,358	32,599	11,402	5,372
Vic	7,048	15,081	11,997	5,607	7,342	15,951	12,996	5,982
Qld	8,761	12,348	11,841	8,402	9,587	13,061	10,973	8,054
SA	1,228	3,314	13,226	4,901	1,345	3,367	13,523	5,402
WA								
Tas					320	685	12,888	6,021
NT								
ACT	916	2,125	10,832	4,669				
National	**32,103**	**63,967**	**11,748**	**5,896**	**33,952**	**65,663**	**11,724**	**6,062**

6. Non-admitted activity

A non-admitted patient service event represents a patient encounter that has not undergone the formal hospital admission process. This includes hospital outpatient clinics and visits to patient's homes.

In Round 23, $6.89 billion of hospital costs were associated with non-admitted care separations (Table 3), representing 13.6 per cent of all hospital costs. The average cost per separation was $332 with all salary and wages costs comprising 61.5 per cent of the average separation cost for this stream. The average cost for non-admitted care separation at the jurisdiction level varied from $264 (New South Wales) to $506 (South Australia and Northern Territory).

Table 11 provides a summary of non-admitted care average cost per service event, average cost per procedure (10 series), average cost per medical consultation (20 series) and average cost per allied health/clinical nurse intervention (40 series) for Round 23 NHCDC by jurisdiction.

Table 11: Non-admitted care summary Round 23, by jurisdiction

Jurisdiction	Average cost per service event	Average cost per Procedure (10 series)	Average cost per Medical consultation (20 series)	Average cost per Allied health/clinical nurse intervention (40 series)
	($)	($)	($)	($)
NSW	264	535	291	187
Vic	341	498	417	229
Qld	355	755	382	281
SA	506	1,137	564	220
WA	350	607	445	234
Tas	375	894	353	277
NT	506	1,621	566	286
ACT	270	405	391	199
National	**332**	**666**	**387**	**228**

7. Emergency activity

An emergency department presentation represents the delivery of a service provided to a patient in a hospital's emergency department.

In Round 23, $5.99 billion of hospital costs were associated with emergency department separations (Table 3), representing 11.8 per cent of all hospital costs. The average cost per separation was $732 with all salary and wages costs comprising 64.6 per cent of the average separation cost for this stream. The average cost of emergency department separation at the jurisdiction level varied from $698 (Victoria) to $861 (Western Australia).

Table 12 provides a summary of emergency department average cost per separation for Round 22 and 23 NHCDC by jurisdiction. It also provides average cost per admitted and non-admitted separation.

Table 12: Emergency department average cost per separation Round 22-23, by jurisdiction

Jurisdiction	Round 22			Round 23		
	Average cost per presentation	Average cost per admitted presentation	Average cost per non-admitted presentation	Average cost per presentation	Average cost per admitted presentation	Average cost per non-admitted presentation
	($)	($)	($)	($)	($)	($)
NSW	680	957	575	700	981	594
Vic	653	965	472	698	1,032	502
Qld	713	1,024	570	729	1,067	570
SA	741	953	639	787	1,046	667
WA	857	1,443	667	861	1,464	675
Tas	784	1,670	397	805	1,608	435
NT	665	908	532	753	1,009	613
ACT	744	1,249	517	799	1,414	521
National	**705**	**1,030**	**561**	**732**	**1,076**	**579**

8. Mental health activity

A mental health care service event or phase represents the delivery of a mental health care service to a patient and can be provided in an admitted or a community setting. For Round 23, IHPA encouraged jurisdictions to submit phase level mental health data where available, as the current Australian mental health care classification is applicable at a phase level. IHPA distinguished between episodes and phase level data based on activity data linking.

In Round 23, $3.23 billion of hospital costs were associated with mental health separations (Table 3), representing 6.4 per cent of all hospital costs. Salary and wages costs comprise 72.1 per cent of the average separation cost for this stream. The average cost of mental health separation at the jurisdiction level varied from $2,815 for Victoria (submitted mental health data at phase level) to $26,199 for Northern Territory (submitted mental health data at episode level).

For Round 23, IHPA collected 2.5 times the mental health data compared to Round 22, with costs increasing by up to 1.3 times. This increase in data comprised of 17,828 admitted and 137,256 community episodes. Table 13 and 14 show the split of mental health data into admitted and community mental health between Round 22 and Round 23, for linked mental health data.

Table 13: Admitted mental health care summary Round 22-23, by jurisdiction

Jurisdiction	Round 22				Round 23			
	Number of episodes	Number of phases	Average cost per phase	Average cost*	Number of episodes	Number of phases	Average cost per phase	Average cost*
			($)	($)			($)	($)
NSW	35,086	36,092	$16,612	$16,612	42,516	43,422	$17,564	$17,564
Vic	23,482	23,482	$16,845	$16,845	25,638	26,840	$19,747	$19,747
Qld	33,110	33,233	$14,369	$14,369	33,579	33,640	$15,439	$15,439
SA	7,441	7,661	$20,149	$20,149	13,566	13,666	$17,393	$17,393
WA	10,275			$20,956	12,023			$24,920
Tas	830			$10,042	3,511	3,511	$11,254	$11,254
NT	1,100			$25,954	1,235			$26,199
ACT**	2,188	6,083	$6,680	$6,680	2,303			$22,670
National	**113,512**	**106,551**	**$18,018**	**$16,166**	**134,371**	**121,079**	**$20,428**	**$18,102**

** Average cost is calculated using the lowest level of data reporting.*
*** Refer to Section 3 for more details on the change of reporting methodology for ACT.*

Table 144: Community mental health care phase summary Round 22-23, by jurisdiction

Jurisdiction	Round 22				Round 23			
	Number of episodes	Number of phases	Average cost per phase	Average cost*	Number of episodes	Number of phases	Average cost per phase	Average cost*
			($)	($)			($)	($)
NSW					75,621	79,605	$3,182	$3,182
Vic					69,103	69,103	$2,106	$2,106
Qld	44,625	49,284	$6,154	$6,154	36,996	38,836	$7,501	$7,501
SA								
WA								
Tas	7,335			$3,386	5,877	6,331	$943	$943
NT								
ACT								
National	**51,960**	**49,284**	**$6,658**	**$5,795**	**187,597**	**193,875**	**$3,591**	**$3,591**

** Average cost is calculated using the lowest level of data reporting.*

Appendix A: Data quality statements

In Round 23 of the NHCDC, each jurisdiction submitted a data quality statement to accompany their hospital cost data submission. The quality statements provide background information and context related to the data, and identify any issues which may impact a jurisdiction's NHCDC results. This may include variations with respect to costs, practices, admission policies, participation and coverage of results that have occurred in the Round.

IHPA advises readers to consider the data quality statements when interpreting jurisdiction level results in this report.

Each jurisdiction's data quality statement is available for review on the IHPA site at: https://www.ihpa.gov.au/publications/national-hospital-cost-data-collection-report-public-sector-round-23-financial-year

Appendix B: NHCDC Report Appendix Tables

The Excel document containing the NHCDC Report Appendix tables are available on the IHPA site at: https://www.ihpa.gov.au/publications/NHCDC-R23. The tables included in the appendix are listed below.

No	Table title
1	NHCDC Round 21 to 23 summary, by jurisdiction and stream
2	NHCDC Round 21 to 23 Direct and Overhead Expenditure, by stream
3	Cost weights for AR-DRG Version 10.0, Round 23 (2018-19) national sample
4	NHCDC Round 21 to 23 admitted acute summary, by jurisdiction
5	NHCDC Round 21 to 23 admitted acute summary, by peer group
6	NHCDC Round 21 to 23 admitted acute cost bucket average cost per separation, by jurisdiction
7	NHCDC Round 21 to 23 admitted acute line item average cost per separation, by jurisdiction
8	NHCDC Round 21 to 23 admitted acute overnight and same day, by jurisdiction
9	NHCDC Round 21 to 23 admitted acute urgency of admission, by jurisdiction
10	NHCDC Round 21 to 23 admitted acute same day and overnight, Indigenous and non-Indigenous, by jurisdiction
11	NHCDC Round 21 to 23 admitted acute paediatric, by jurisdiction
12	NHCDC Round 21 to 23 admitted acute geographic location, by jurisdiction
13	NHCDC Round 21 to 23 Emergency Department by jurisdiction
14	Emergency care summary, Urgency Related Groups (URG) Version 1.45, Round 23
15	NHCDC Round 21 to 23 emergency department cost bucket average cost per separation, by jurisdiction
16	NHCDC Round 21 to 23 admitted Emergency Department line item average cost per separation, by jurisdiction
17	Non-admitted summary table, Tier 2 Version 4.1
18	NHCDC Round 21 to 23 Non-admitted summary by Tier 2 class
19	NHCDC Round 21 to 23 Non-admitted summary by jurisdiction
20	NHCDC Round 21 to 23 non-admitted cost bucket per service event by jurisdiction
21	NHCDC Round 21 to 23 non-admitted line item average cost per separation, by jurisdiction
22	NHCDC Round 21 to 23 subacute summary care type, by jurisdiction
23	NHCDC Round 23 Subacute ANSNAP Version 4 Summary
24	NHCDC Round 21 to 23 admitted subacute cost bucket average cost per separation, by jurisdiction
25	NHCDC Round 21 to 23 subacute line item average cost per separation, by jurisdiction
26	NHCDC Round 21 to 23 Other stream summary, by jurisdiction
27	NHCDC Round 21 to 23 Organ Procurement cost bucket average per separation by jurisdiction
28	NHCDC Round 23 Mental health summary table
29	NHCDC Round 21 to 23 mental health cost bucket average cost per separation, by jurisdiction
30	NHCDC Round 21 to 23 mental health line item average cost per separation, by jurisdiction

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