

Independent Hospital Pricing Authority

National Hospital Cost Data Collection Report

Public Sector, Round 24 (Financial Year 2019-20)

October 2021



National Hospital Cost Data Collection Report: Public Sector, Round 24 Financial Year 2019-20

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Note to readers

The Round 24 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 24 National Hospital Cost Data Collection (NHCDC). It aims to summarise the expenditure within Australia's public hospitals for the financial year 2019-20 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 24 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

Due to the COVID-19 global pandemic, the Round 24 report contains additional analysis on how COVID-19 affected public hospital activity and cost in 2019-20. The analysis is presented in Section 0

COVID-19 activity, as well as throughout the relevant sections of the report.

1.2 Participation

For Round 24, IHPA received data from 553 hospitals nationally. **Table 1** shows the breakdown of hospitals by jurisdiction.

Between Round 23 and Round 24, the number of unique hospitals increased by 9.1 per cent. This includes 22 hospitals that submitted data previously, however, did not report data for Round 24.

Nationally, 68 new establishments reported cost data for Round 24, of these, 39 were mental health establishments including ambulatory mental health data.

Table 1: Number of hospitals, by jurisdiction, Round 22-24

Jurisdiction	Number of participating hospitals		
	Round 22	Round 23	Round 24
NSW	95	128	142
Vic	79	81	83
Qld	196	210	240
SA	20	20	19
WA	33	36	36
Tas	23	23	24
NT	5	6	6
ACT	2	3	3
National	453	507	553

1.3 Expenditure

In Round 24 of the NHCDC submission, total hospital expenditure for the 2019-2020 financial year was \$54.85 billion. This represents an 8.3 per cent increase over the total for Round 23 (\$50.65 billion).

Table 2 presents the total hospital expenditure across three NHCDC rounds. The increase in cost between Round 23 and Round 24 national reported expenditure is 0.9 per cent higher than the increase between Round 22 and Round 23 (7.4 per cent increase). This can be partly attributed to the increase in expenditure due to COVID-19.

Despite the increase, the share of the expenditure at the jurisdictional level has remained reasonably 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 22-24

Jurisdiction	Round 22		Round 23		Round 24	
	Total Expenditure	% of Total Expenditure	Total Expenditure	% of Total Expenditure	Total Expenditure	% of Total Expenditure
	(\$m)	(%)	(\$m)	(%)	(\$m)	(%)
NSW	13,753	29	14,695	29	15,741	29
Vic	10,723	23	11,619	23	13,234	24
Qld	10,851	23	11,635	23	12,618	23
SA	3,769	8	4,082	8	4,189	8
WA	4,954	11	5,230	10	5,424	10
Tas	1,137	2	1,238	2	1,338	2
NT	965	2	1,047	2	1,117	2
ACT	1,013	2	1,108	2	1,189	2
Total	47,165	100	50,653	100	54,849	100

*The Exclude cost bucket is excluded from the Total Expenditure.

1.4 Summary of results

In Round 24 NHCDC submissions, there were 39,702,010 patient encounters across all hospital activity streams at Australian public hospitals.

In Australia's public hospitals in 2019-20, on an average day:

- 16,827 patients were admitted to hospital for acute care (compared to 17,021 in Round 23)
- 66,626 patients had a non-admitted encounter (compared to 56,798 in Round 23)
- 22,392 patients presented to an emergency department (compared to 56,798 in Round 23)

These activity levels for Admitted acute and emergency department were slightly lower than observed in Round 23 resulting from lockdowns and limitations on elective surgery caused by COVID-19, however the reduction in activity only impacted the last 4 months of the financial year. Non-admitted encounters increased by 9,828 daily patients, resulting from the increased activity from COVID-19 testing that was captured in outpatients. Not all jurisdictions reported all COVID-19 testing activity, and as a result the above numbers do not reflect the full impact of the pandemic response.

Total expenditure for admitted acute was the highest at \$32.8 billion for 6.1 million episodes, representing a 4.9 per cent increase in expenditure compared to Round 23 (\$31.2 million for 6.2 million episodes).

For non-admitted, there were a total of 24.3 million service events with a total expenditure of \$8.5 billion, representing a 23.6 per cent increase in expenditure over Round 23 (\$6.9 billion for 20.7 million service events). This expenditure increase is partially attributed to the COVID-19 Tier 2 clinics that formed part of the non-admitted activity submitted to the Round 24 NHCDC and partially due to improved costing and reporting of non-admitted activity.

Subacute and non-acute care represented 220,018 episodes. Northern Territory reported the highest average cost for Subacute (\$33,248 against the national average cost of \$15,373).

For mental health data, Round 24 represents 72,936 phases and 45,427 episodes in the admitted setting with a total cost of \$2.3 billion, and 467,539 community phases with a total cost of \$1.2 billion. The Round 24 submission contained 2.4 times more community health phases than Round 23, with NSW and Queensland significantly increasing the amount of activity submitted. Corresponding, total expenditure was nearly double what was reported in Round 23 (\$696 million). Mental health data also includes 242,634 ungrouped mental health episodes with a total cost of \$281 million. This reflects increased costing and reporting of this activity, rather than a change in the services provided.

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 24

Activity stream	Number of Hospitals	Number of Episodes	Total Expenditure	Average Cost per Episode	Per cent Change in Average Cost Since Round 23
			(\$m)	(\$)	(%)
Admitted Acute	354	6,141,848	32,766	5,335	6.1
Emergency Department	276	8,172,976	6,333	775	5.9
Non-Admitted	362	24,318,538	8,516	350	5.4
Subacute	332	220,018	3,382	15,373	10.0
Mental Health					
<i>Admitted Mental Health</i>	169	118,363	2,279		
<i>Community Mental Health</i>	173	467,539	1,221		
<i>Ungroupable</i>	157	242,634	281		
Other activity	198	20,094	71	3,531	-6.3

Further detail on the changes to the average costs for all activity streams since Round 23 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 24 NHCDC contains hospital cost data for the 2019-20 financial year and IHPA will use it to inform the NEP 2022-23 Determination, subject to any adjustments required to account of the impact of COVID-19.

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 COVID-19 and the NHCDC

The COVID-19 global pandemic impacted the Australian public hospital system during 2020, and hence impacted the public hospital expenditure and activity submitted to the Round 24 NHCDC. While the response of states and territories to COVID-19 differed, most experienced lockdowns and restrictions on public hospital activity during that time which had financial implications that are reflected through this report.

In March 2020, an initial National lockdown was implemented, with all non-essential activities and businesses pausing or reducing activities under 'stay at home' orders. This had the following impact on public hospital activities:

- Elective surgeries were suspended, except for category 1 and urgent category 2;
- Emergency department presentations saw a reduction; and
- Hospitals incurred additional costs related to 'preparation' activities.

In April 2020, some category 2 and 3 elective surgeries were resumed and by May 2020, the Prime Minister announced a 3-stage plan to resume elective surgeries. These events directly impacted the level of activity seen by hospitals across the country.

¹ <https://www.ihipa.gov.au/publications/australian-hospital-patient-costing-standards-version-40>

Additionally, the Commonwealth and all state and territory governments signed the National Partnership on COVID-19 Response (NPCR). This was aimed to provide financial assistance for the additional costs incurred by health services in responding to the COVID-19 outbreak.

In June 2020, IHPA released a set of guidelines² for the costing and pricing of activity for the duration of the NPCR.

Although provided with the guidelines by IHPA, due to the timing and uncertainty of the pandemic response experienced by jurisdictions, states and territories undertook different approaches to costing for Round 24. Some split the year into two costing periods (pre-COVID-19 and COVID-19), while others costed as an annual period and utilised COVID-19 cost centres to capture the pandemic related costs. These differences in costing approach resulted in variations in how costs were spread across time periods and episodes.

For additional information on the impact of COVID-19 refer to Section 0.

2.4 Scope and reporting of the Round 24 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 2019-20 (Round 24). 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 replaced the previous methodology of using IHPA defined product types. This methodology continues to be used in Round 24.

2.5 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. These costs are allocated to, and reported under, the NHCDC defined 'cost buckets'³. 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.

Additionally, changes to the Australian Coding Standard (ACS0002) changed the way episodes were coded between 2018-19 and 2019-20. The data was not adjusted to allow for this change

² <https://www.ihipa.gov.au/publications/covid-19-response-costing-and-pricing-guidelines>

³ Tab 12 of the Round 24 Data Request Specifications includes the cost bucket matrix for Round 24:
https://www.ihipa.gov.au/sites/default/files/publications/round_24_drs_nhcdc_public_sector.xlsx

in the analysis presented in this report or the accompanying appendices for the Round 24 NHCDC.

2.6 Classifications

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

Hospital activity relates to the 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 4 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.

The Round 24 NHCDC contains the following changes to classifications:

- Non-admitted care is reported under Non-admitted Tier 2 Classification Version 6 (Round 23 previously used Version 5)
- Emergency care is reported under Australian Emergency Care Classification (AECC) Version 1.0 (Round 23 previously used Urgency Related Groups (URG) Version 1.46)

Table 4: IHPA classifications for key activity collections, Round 24 NHCDC

Activity Stream	Description	Classification
<i>Admitted acute care</i>	<p>Admitted acute care is provided to patients who are formally admitted to hospital to receive active but short-term treatment with a goal to:</p> <ul style="list-style-type: none"> • 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
<i>Subacute and non-acute care</i>	<p>Specialised multidisciplinary care in which the primary need for care is optimisation of the patient's functioning and quality of life.</p> <p>Subacute care includes the following care types:</p> <ul style="list-style-type: none"> • Rehabilitation care • Palliative care • Geriatric evaluation and management (GEM) care • Psychogeriatric care <p>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.</p>	Australian National Subacute and Non-Acute Patient (AN-SNAP) classification Version 4
<i>Non-admitted care</i>	<p>Services provided to patients who do not undergo a formal admission process and do not occupy a hospital bed.</p> <p>Includes:</p> <ul style="list-style-type: none"> • Hospital outpatient clinics • Community based clinics • Patients' homes 	Non-admitted Tier 2 Classification Version 6
<i>Emergency care</i>	Services provided to patients in a hospital's emergency department	Australian Emergency Care Classification (AECC) Version 1.0
<i>Mental Health care</i>	Mental Health services provided to patients. Includes services provided both in admitted and community settings.	Australian Mental Health Care Classification (AMHCC) v1.0
<i>Teaching Training and Research</i>	Teaching and training activities which occur in public hospital services.	Australian Teaching and Training Classification (released 1 July 2018)

2.7 Adjustments to reported admitted activity

Work in progress patients

A work in progress (WIP) patient is one that is not discharged at the end of the financial year. For Round 24 of the NHCDC, WIP patients were considered in-scope for reporting if they were admitted in the previous financial year (2018-19) and discharged in the reporting period (i.e. the 2019-20 financial year). This is consistent with the reporting for Rounds 22 and 23 to include patients admitted in the previous year.

The Round 24 admitted acute cost weight table also excludes inpatients admitted prior to 1 July 2018.

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.

2.8 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 are 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.

No IFR was conducted in Round 23, due to the impact of the COVID-19 pandemic on states, territories and health services. The IFR resumed in Round 24 and will be published on the IHPA website once completed.

2.9 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 4.1 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.ihoa.gov.au/publications/australian-hospital-patient-costing-standards-version-41>

In addition to the AHPCS, IHPA released the *COVID-19 Response Costing and pricing guidelines version 0.4* to specify IHPA's process for costing and pricing of activity for the duration of the NPCR. This document served as a tool to identify the scope of activity and costs funded under the NPCR and provide practical steps and examples to guide staff on the patient costing process during this time.

The costing guideline can be accessed through the following link:

<https://www.ihoa.gov.au/publications/covid-19-response-costing-and-pricing-guidelines>

3. Overview

3.1 National picture

In Round 24, the NHCDC submission included 553 public hospitals, representing an increase of 46 hospitals (9.1 per cent) from Round 23.

Between Round 23 and Round 24, the total national expenditure grew from \$50.65 billion to \$54.85 billion, an increase of 8.3 per cent. This expenditure represents 39,702,010 patient-level encounters across all hospital activity streams. The level of costs and activity were impacted by COVID-19, with an increase in costs and for some streams a decrease in activity, resulting in an increase in the average cost per episode. For more information on the impact of COVID-19, please refer to section 0.

The average cost per episode for admitted acute care for Round 24 was \$5,335, an increase of 6.1 per cent over Round 23 (\$5,027). This was higher than the increase between Round 23 and Round 22 (\$4,885), which was 2.9 per cent.

The average cost for emergency department presentation for Round 24 was \$775, an increase of 5.9 per cent over Round 23 (\$732). This was higher than the increase between Round 23 and Round 22 (\$705), which was 3.8 per cent.

Non-admitted care average cost per service event for Round 24 was \$350, an increase of 5.4 per cent over Round 23 (\$332). This was higher than the increase between Round 23 and Round 22 (\$317), which was 4.9 per cent.

The average per admitted episode cost of subacute care for Round 24 was \$ 15,373, an increase of 10.0 per cent over Round 23 (\$13,974). This was significantly higher than the increase of 4.3 per cent between Round 23 and Round 22 (\$13,393).

For Mental health data, only four jurisdictions submitted data at a phase level, New South Wales (NSW), Victoria (Vic), Queensland (Qld) and South Australia (SA), all other jurisdictions submitted their data at an episode level. NSW submitted most of their data at a phase level, with only 15 episode submissions for the 2019-20 financial year.

At a national level, admitted mental health cost per episode increased by 18.0 per cent, which was driven by shifts between episode and phase level reporting. Victoria submitted fewer phase level records and more episodic level records for Round 24. This also resulted in large changes to the average cost per episode reducing from \$32,994 in Round 23 to \$22,941 in Round 24 (a decrease of 30.5 per cent).

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 Specifications⁴). 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.

⁴ <https://www.ihipa.gov.au/what-we-do/data-collection/data-specifications/abf-data-request-specifications-2019-20>

- Activity data, submitted quarterly in line with data set specifications unique to each activity stream⁵. From these data items, 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 22 to 24 for the acute admitted, subacute and emergency department activity streams. In Round 24, 96 per cent of the admitted acute activity data had matching cost data.

For non-admitted submitted data there was an increase of 11 per cent in the linkage rate for Round 24, increasing from 64 per cent in Round 23 to 75 per cent.

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 22-24

Activity stream	Round 22	Round 23	Round 24
	(%)	(%)	(%)
Acute admitted	96	96	96
Subacute	66	68	66
Emergency Department	90	92	92
Non-admitted	73	64	75
Admitted Mental Health		44.8	41.0
Community Mental Health		13.1	33.1

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 24 NHCDC line items and cost centres are available in costing standards⁶.

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 24, which shows how costs are organised into buckets.

⁵ For more information about IHPA's hospital activity collection visit: <https://www.ihipa.gov.au/what-we-do/data-collection>

⁶ <https://www.ihipa.gov.au/publications/australian-hospital-patient-costing-standards-version-40>

Figure 1: Round 24 NHCDC cost bucket matrix

Cost Bucket Matrix		Line Items																						
		SW Nurs	SW AH	SW Other	SW Med	SW VMO	GS	MS	Corp	Imag	Path	Blood	Phrm N PBS	Phrm PBS	Oncsts	Pros	Hotel	Dprc B	Dprc E	Lease	Cap	Exclcd	Pat Trav	
Cost Centre Group	Allied	Allied							Allied	Allied														
	Clinical	Ward Nurs	Allied	Non Clincl	Ward Med		Ward Spls				Imag	Path		Phrm										
	Imag			Imag					Imag			Path		Imag										
	Path			Path					Path		Imag			Path										
	Crtcl			Crtcl					Crtcl		Crtcl													
	OR			OR					OR		OR													
	Phrm			Phrm					Phrm		Phrm				Oncsts	Pros	Hotel		Dprc			Exclcd	Pat Trav	
	ED			ED					ED		ED													
	SPS			SPS					SPS		SPS													
	Other Serv			Non Clincl					Non Clincl		Non Clincl													
Non-Patient	Ward Nurs	Allied	Non Clincl	Ward Med		Ward Spls			Imag	Path			Phrm											

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 62.5 per cent (Acute) to 71.9 per cent (Mental Health, including admitted, community and unlinked) of all costs of the respective streams. Within the salary and wages category, some variations exist in the different workforce costs across different streams. For example, nursing costs accounted for 51.2 per cent of salary and wages costs for mental health, but made up 26.3 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 11.9 per cent compared to emergency department allied health salary at 3.1 per cent.

Table 6: National average cost per line item, by activity stream, Round 24

Line Item	Acute	Subacute	Emergency Department	Non-admitted	Mental Health	
					Admitted	Community
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Salary & Wages Nursing	1,498	5,092	174	56	7,845	660
Salary & Wages Medical (nonVMO)	837	1,733	187	56	2,213	314
Salary & Wages Medical (VMO)	220	306	29	12	809	91
Salary & Wages Allied Health	209	1,507	24	42	1,191	627
Salary & Wages Other	570	2,054	87	47	2,218	319
On-costs	378	1,361	56	24	1,437	250
Pathology	107	107	37	8	157	2
Imaging	26	30	22	2	26	2
Prostheses	153	9	0	1	0	0
Medical supplies	255	270	19	11	117	14
Goods and services	444	1,343	69	34	1,984	227
Pharmaceuticals PBS	70	37	3	30		2
Pharmaceuticals nonPBS	136	180	6	6	172	3
Blood	38	13	2	2	2	0
Depreciation building	115	329	17	9	631	45
Depreciation equipment	41	59	5	3	80	7
Hotel	161	727	15	4	959	14
Corporate	29	87	6	2		0
Lease	19	58	3	1	30	24
Patient Travel	29	73	13	0	43	2
Total (\$)	5,335	15,373	775	350	19,915	2,612

At the cost bucket level (Table 7), the Ward Nursing cost bucket accounted for the biggest share of the costs for the admitted acute (19.1 per cent of costs), subacute (32.8 per cent) and admitted mental health (35.6 per cent) activity streams.

Nationally, the Ward Medical cost bucket had an increase of 12.1 per cent from Round 23 (\$592) against Round 24 (\$664). Most jurisdictions experienced a double digit increase in this cost bucket, ranging from 10.6 per cent (NT) to 22.0 per cent (Qld).

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 24

Cost Bucket	Acute	Subacute	Emergency Department	Non-admitted	Mental Health	
					Admitted	Community
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Ward Medical	664	1,990	7	60	2,922	407
Ward Nursing	1,017	5,036	14	51	7,069	654
Allied Health	171	1,803	4	42	1,004	627
Non Clinical	358	1,754	7	37	2,046	316
On-costs	378	1,361	56	24	1,764	251
Pathology	190	159	48	15	159	11
Imaging	129	117	76	15	57	2
Prosthesis	153	9	0	1	1	0
Ward Supplies	377	1,483	10	35	1,948	240
Pharmacy	216	366	4	41	294	5
Critical Care	439	12	0	0	192	0
Operating Room	800	22	1	5	105	0
Patient Travel	29	73	13	0	35	2
Special Procedure Suite	64	11	0	5	38	0
Emergency Department	15	4	494	0	227	6
Hotel	161	727	15	4	832	14
Depreciation	174	446	25	14	562	76
Total (\$)	5,335	15,373	775	350	19,255	2,612

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 24, \$32.77 billion of hospital costs were associated with admitted acute care separations (Table 3). Admitted acute care has the most developed classification system⁷, which in turn generates the most robust cost data results.

COVID-19 had a direct impact in the acute admitted activity and its associated costs. **Error! Reference source not found.** Table 8 and Table 9 present a summary of changes in admitted acute care average cost per separation for Round 23 and 24 NHCDC by jurisdiction

Overall, the number of episodes decreased by 1.1 per cent as a result of lockdowns and restrictions on elective surgery during the COVID-19 period (compared to an increase of 3.2 per cent between Round 22 to Round 23). However, cost per separation increased by 6.1 per cent due to an increase in costs and the reduction of activity.

Table 8: Admitted acute total separations and average cost per separation Round 23-24, by jurisdiction

Jurisdiction	Round 23		Round 24			
	Number of episodes	Average cost per episode	Number of episodes	Average cost per episode	Per cent Change in No. episode since Round 23	Per cent Change in Avg cost per episode since Round 23
		(\$)		(\$)	(%)	(%)
NSW	1,663,415	5,443	1,598,193	5,825	-3.9	7.0
Vic	1,724,577	4,505	1,671,680	4,919	-3.1	9.2
Qld	1,478,969	4,542	1,509,216	4,879	2.0	7.4
SA	387,907	6,345	387,506	6,287	-0.1	-0.9
WA	547,445	5,864	564,900	5,792	3.2	-1.2
Tas	127,994	5,940	123,544	6,658	-3.5	12.1
NT	173,864	3,695	178,875	3,821	2.9	3.4
ACT	108,511	5,690	107,934	6,076	-0.5	6.8
National	6,212,682	5,027	6,141,848	5,335	-1.1	6.1

*The total costs exclude the Excluded cost buckets – Vic and ACT do not submit depreciation costs

⁷ Australian Revised –Diagnosis Related Groups Version 10.0

Table 9: Admitted acute care summary Round 23-24, by jurisdiction

Jurisdiction	Round 23				Round 24			
	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	5,443	48.4	2.9	4.6	5,825	49.4	2.9	4.7
Vic	4,505	61.3	2.2	4.1	4,919	61.7	2.2	4.2
Qld	4,542	60.4	2.1	3.7	4,879	61.4	2.0	3.7
SA	6,345	52.0	2.6	4.4	6,287	52.9	2.6	4.4
WA	5,864	60.0	2.2	3.9	5,792	62.2	2.1	3.9
Tas	5,940	54.8	2.6	4.6	6,658	56.8	2.6	4.7
NT	3,695	73.0	1.9	4.3	3,821	73.3	1.8	4.2
ACT	5,690	53.0	2.6	4.4	6,076	54.3	2.6	4.6
National	5,027	57.0	2.4	4.2	5,335	58.0	2.4	4.2

4.1 Average cost per weighted separation

The average cost per acute separation in Round 24 is \$5,335 (representing a 6.1 per cent increase from Round 23). The average cost at the jurisdiction level varied from \$3,821 (Northern Territory) to \$6,658 (Tasmania). The variation in average cost is caused by multiple factors, including the admission policies of the jurisdictions, the complexity of the treatment required, location and age. Additionally, differences in the number and approach to COVID-19 models of care in addition to the costing approach taken in Round 24 has also led to variation in the average cost per episode by jurisdiction.

To compare the average cost of admitted acute care separations between jurisdictions, the complexity of each jurisdiction's work profile⁸ should be considered. To do this, IHPA creates *weighted separations*. A weighted separation considers the complexity of the acute activity for 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 24, which are used to compare resource utilisation based on the national level.

The average cost per separation is \$5,335 and has a weight of 1.0. In Round 24, a single heart transplant patient separation⁸, for example, corresponds to 36.56 weighted separations⁹. In contrast, a single colonoscopy patient separation¹⁰ 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.

⁸ DRG: F23Z

⁹ 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.

¹⁰ DRG: G48B

Table 10 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 jurisdiction's activity profile. If a jurisdiction's average cost per weighted separation is lower than its average cost, the jurisdiction's hospital activity is comprised of a higher proportion of complex Diagnosis Related Groups.

The Northern Territory had the biggest variance, with a low average cost (\$3,821) and a high average cost (\$6,736) per weighted separation. This reflects that the complexity of separations is quite low relative to the national case-mix.

Table 10: Admitted acute average cost per weighted separation Round 24, by jurisdiction

Jurisdiction	Number of separations	Number of weighted separations	Complexity factor (1)	Average cost per separation	Average cost per weighted separation
				(\$)	(\$)
NSW	1,598,193	1,782,059	1.12	5,825	5,224
Vic	1,671,680	1,611,264	0.96	4,919	5,104
Qld	1,509,216	1,433,546	0.95	4,879	5,137
SA	387,506	421,671	1.09	6,287	5,778
WA	564,900	548,979	0.97	5,792	5,960
Tas	123,544	127,874	1.04	6,658	6,432
NT	178,875	101,471	0.57	3,821	6,736
ACT	107,934	114,984	1.07	6,076	5,704
National	6,141,848	6,141,848	1.00	5,335	5,335

5. Admitted 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 24, \$3.38 billion of hospital costs were associated with subacute care separations (Table 3), representing 6.2 per cent of all hospital costs. The average cost per separation was \$15,373 with all salary and wages costs comprising 69.5 per cent of the average separation cost for this stream. The average cost for a subacute care separation at the jurisdiction level varied from \$11,691 (New South Wales) to \$33,248 (Northern Territory).

Table 11 provides a summary of palliative care episodes and phases of care submitted to the Round 23 and 24 NHCDC by jurisdiction. Not all states and territories submitted phase level data and where this was not available, the number of subacute episodes has been reported. As with admitted acute, activity levels for subacute were lower in Round 24 due to the impact of COVID-19.

Table 11: Palliative phase of care summary Round 23-24, by jurisdiction*

Jurisdiction	Round 23				Round 24			
	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	36	32,599	12,574	5,372		32,574		5,796
Vic	7,343	15,951	12,975	5,982	7,485	15,492	13,482	6,506
Qld		13,061		8,054	92	6,787	36,720	8,517
SA	752	3,367	12,414	5,402	658	3,597	12,095	5,310
WA	2,133		12,801		2,326		13,477	
Tas	527	683	13,649	6,035		730		6,261
NT	407		22,211		15	1,048	18,431	12,040
ACT	953		11,589		823		16,636	
National	12,151	65,661	13,140	6,062	11,399	60,228	13,823	6,370

*If a state or territory only submitted phase level information, the number of episodes will be blank, and vice versa

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 24, \$8.52 billion of hospital costs were associated with non-admitted care separations (Table 3), representing 15.5 per cent of all hospital costs. The average cost per service event was \$350 with salary and wages costs comprising 60.7 per cent of the average separation cost for this stream. The average cost for non-admitted care separation at the jurisdiction level varied from \$285 (New South Wales) to \$508 (Northern Territory).

Table 12 presents the change in total episodes and average cost service by jurisdiction. Victoria had the largest increase in the number of service events between Round 23 and Round 24 driven by increases in the volume of non-COVID-19 costed activity for existing hospitals.

Table 12: Non-admitted total episodes and average cost per episode Round 23-24, by jurisdiction

Jurisdiction	Round 23		Round 24			
	Number of episodes	Average cost per episode	Number of episodes	Average cost per episode	Per cent Change in No. episode since Round 23	Per cent Change in Avg cost per episode since Round 23
		(\$)		(\$)	(%)	(%)
NSW	7,066,650	264	7,717,128	285	9.2	8.2
Vic	2,829,584	341	4,872,486	346	72.2	1.2
Qld	5,456,805	355	6,074,761	384	11.3	8.2
SA	1,537,493	506	1,699,229	504	10.5	-0.3
WA	2,168,321	350	2,255,748	362	4.0	3.4
Tas	552,297	375	564,802	380	2.3	1.5
NT	301,056	506	311,963	508	3.6	0.3
ACT	818,970	276	822,421	301	0.4	8.9
National	20,731,176	332	24,318,538	350	17.3	5.4

The non-admitted Tier 2 classification can be grouped into broader clinic type categories (or 'series'). Table 13 provides a summary of non-admitted care average cost per service event for all records, 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 24 NHCDC by jurisdiction.

Table 13: Non-admitted care summary Round 24, 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	285	570	321	208
Vic	346	529	415	239
Qld	384	767	399	325
SA	504	1085	601	228
WA	362	631	469	240
Tas	380	743	402	314
NT	508	1386	598	305
ACT	301	424	421	234
National	350	675	408	254

The results in Table 12 and Table 13 include activity submitted relating to COVID-19. This activity was captured under two different Tier 2 classifications (classes 20.57 and 40.63 for 'COVID-19 Response'). This has resulted in an increase to the total number service events for Round 24, although not all jurisdictions reported all COVID-19 testing activity, and as a result the above numbers do not reflect the full impact of the pandemic response.

Further detail non-admitted COVID-19 costs is presented in Section 0.

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 24, \$6.33 billion of hospital costs were associated with emergency department separations (Table 3), representing 11.5 per cent of all hospital costs. The average cost per presentation was \$775 with all salary and wages costs comprising 64.7 per cent of the average separation cost for this stream. The average cost per presentation at the jurisdiction level varied from \$714 (Victoria) to \$1,012 (Tasmania).

In Round 24, the average cost per presentation increased across all jurisdictions for admitted and non-admitted presentation types. This increase was driven by an overall reduction of presentations while costs increased due to COVID-19.

Table 14 breaks down the reduction in activity at a jurisdictional level with the exception of Victoria and South Australia, where there was an increase in the number of presentations for Round 24.

Table 14: Emergency department total presentations and average cost per presentation Round 23-24, by jurisdiction

Jurisdiction	Round 23		Round 24			
	Number of presentations	Average cost per presentation	Number of presentations	Average cost per presentation	Per cent Change in presentations since Round 23	Per cent Change in Avg cost per presentation since Round 23
		(\$)				
NSW	2,649,683	700	2,571,745	766	-2.9	9.4
Vic	1,798,934	698	1,916,990	714	6.6	2.3
Qld	1,976,966	729	1,947,567	740	-1.5	1.4
SA	516,205	787	530,195	827	2.7	5.0
WA	762,077	861	747,687	922	-1.9	7.0
Tas	166,514	805	154,249	1,012	-7.4	25.7
NT	165,035	753	164,784	837	-0.2	11.1
ACT	149,268	799	139,759	957	-6.4	19.8
National	8,184,682	732	8,172,976	775	-0.1	5.9

Table 15 provides a summary of emergency department average cost per presentation for Round 23 and 24 NHCDC by jurisdiction, separating between admitted and non-admitted presentations.

Table 15: Emergency department average cost per separation Round 23-24, by jurisdiction

Jurisdiction	Round 23			Round 24		
	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	700	981	594	766	1,058	659
Vic	698	1,032	502	714	1,121	511
Qld	729	1,067	570	740	1,088	573
SA	787	1,046	667	827	1,086	702
WA	861	1,464	675	922	1,499	741
Tas	805	1,608	435	1012	1,896	659
NT	753	1,009	613	837	1,141	662
ACT	799	1,414	521	957	1,643	621
National	732	1,076	579	775	1,144	616

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 24, 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 24, \$3.78 billion of hospital costs were associated with mental health separations (Table 3), representing 6.9 per cent of all hospital costs. Salary and wages costs comprise 71.9 per cent of the average separation cost for this stream

For Round 24, data was submitted for both admitted mental health and community mental health. For admitted mental health, all jurisdictions submitted episodic level data, but only four jurisdictions (NSW, Victoria, Queensland and South Australia) submitted phase level data.

For admitted mental health data:

- The average cost per episode was \$18,286, which was an increase of 18.0 per cent compared to Round 23 (\$15,500).
- The average cost per phase was \$19,859, which was an increase of 2.6 per cent compared to Round 23 (\$19,351)

For community mental health data, IHPA collected 2.7 times the mental health data compared to Round 23, increasing from 193,875 encounters (episodes plus phases) to 467,539 encounters in Round 24. Victoria submitted phase level information for the first time in Round 24, but NSW and Queensland also had significant increase in the volume of community mental health phase data (2.3 time and 4.2 times respectively). Total expenditure increased 1.8 times compared to Round 23, increasing from \$696 million to \$1.2 billion.

For community mental health data:

- The average cost per episode was \$2,444, which was a decrease of 3.0 per cent compared to Round 23 (\$2,521).
- The average cost per phase was \$2,620, which was a decrease of 40.2 per cent compared to Round 23 (\$4,381)

The average cost per phase for community mental health is impacted by the significant change in the reported volume of data for Round 24.

Table 16 and Table 17 show the split of mental health data into admitted and community mental health between Round 23 and Round 24, for linked mental health data.

Table 16: Admitted mental health care summary Round 23-24, by jurisdiction

Jurisdiction	Round 23				Round 24			
	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	5,478	37,944	3,441	19,603	15	37,444	4,067	19,921
Vic	1,377	25,463	32,994	19,030	8,302	17,993	22,941	18,709
Qld	12,071	21,569	11,521	17,631	10,813	10,231	10,314	18,758
SA	6,340	7,326	9,498	24,226	6,260	7,268	9,937	23,934
WA	12,023		24,920		12,984		24,598	
Tas	3,511		11,254		3,284		15,555	
NT	1,235		26,199		1,346		27,847	
ACT**	2,303		22,670		2,423		24,134	
National	44,338	92,302	15,500	19,351	45,427	72,936	18,286	19,859

* Mental health episode costs are reported by DRG and mental health phase costs are reported by AMHCC v1.0

Table 17: Community mental health care phase summary Round 23-24, by jurisdiction

Jurisdiction	Round 23				Round 24			
	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		79,605		3,182		186,980		3,051
Vic	69,103		2,106		5,401	131,822	2,991	2,326
Qld	8,669	30,167	6,953	7,659	8,860	126,405	2,644	2,289
SA								
WA								
Tas	4,615	1,716	412	2,373	8,071		1,860	
NT								
ACT								
National	82,387	111,488	2,521	4,381	22,332	445,207	2,444	2,620

9. COVID-19 activity

9.1 Timing and impact of COVID-19

As discussed in Section 2.3, the COVID-19 global pandemic had a direct impact in the expenditure and activity of the Australian public hospital system during the last quarter of the 2019-20 financial year.

The measures taken by the Commonwealth and the state and territory governments influenced the activity levels in public hospitals. Key events included:

- In March 2020, an initial national lockdown commenced where all elective surgeries were suspended, except for category 1 and urgent category 2. In addition to reduced surgeries, there were fewer Emergency department presentations seen.
- In April 2020, a restart of some category 2 and 3 elective surgeries.
- May 2020, the Prime Minister unveiled a 3-stage plan to resume elective surgeries across the nation.

Error! Reference source not found. shows separations by month for admitted acute over the 2019-20 financial year. There was a reduction of 21.0 per cent in the total amount of separations, reducing from 506,749 in March 2020 to 400,375 in April 2020, resulting from the lockdowns and restrictions in elective surgery. Activity subsequently increased towards the end of the financial year.

Figure 2: Admitted acute activity by month for the 2019-20 financial year

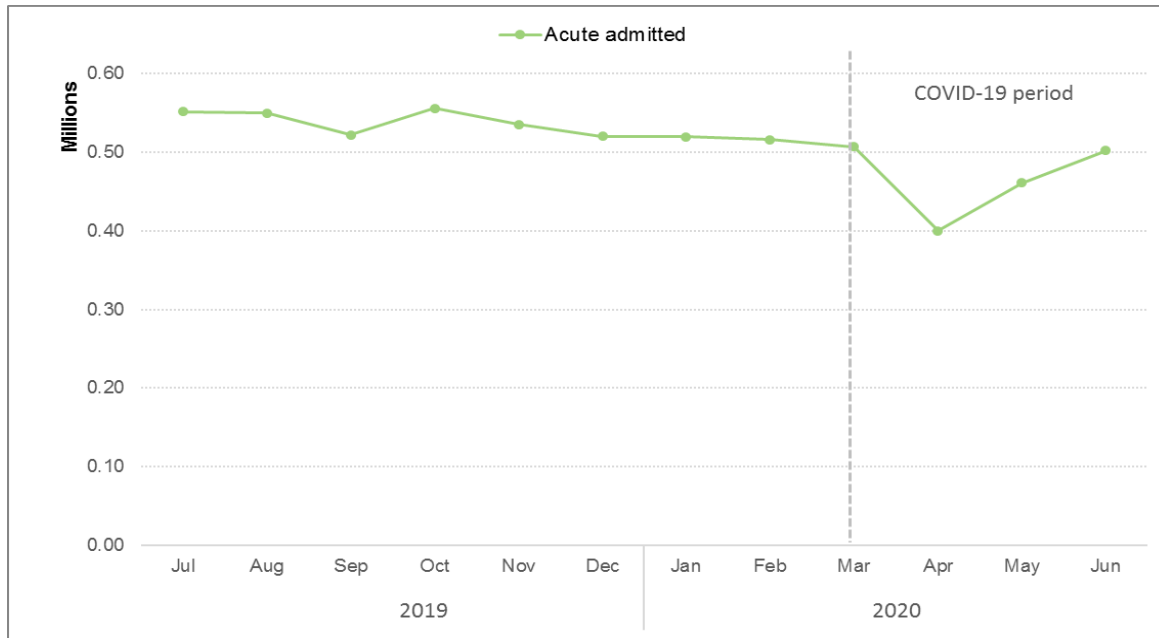
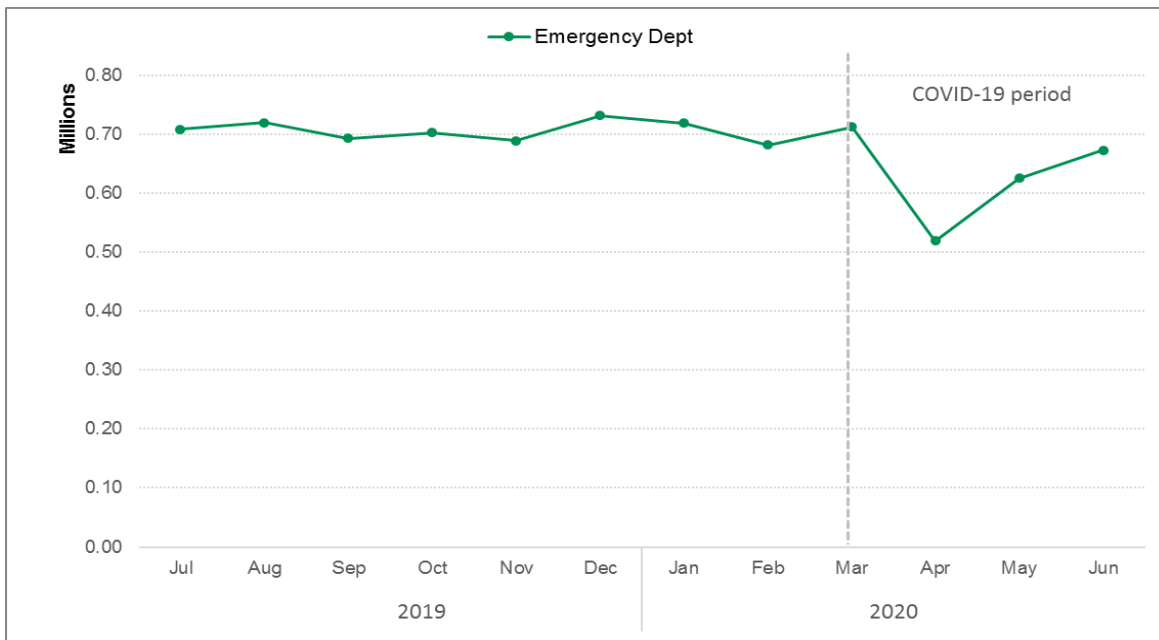


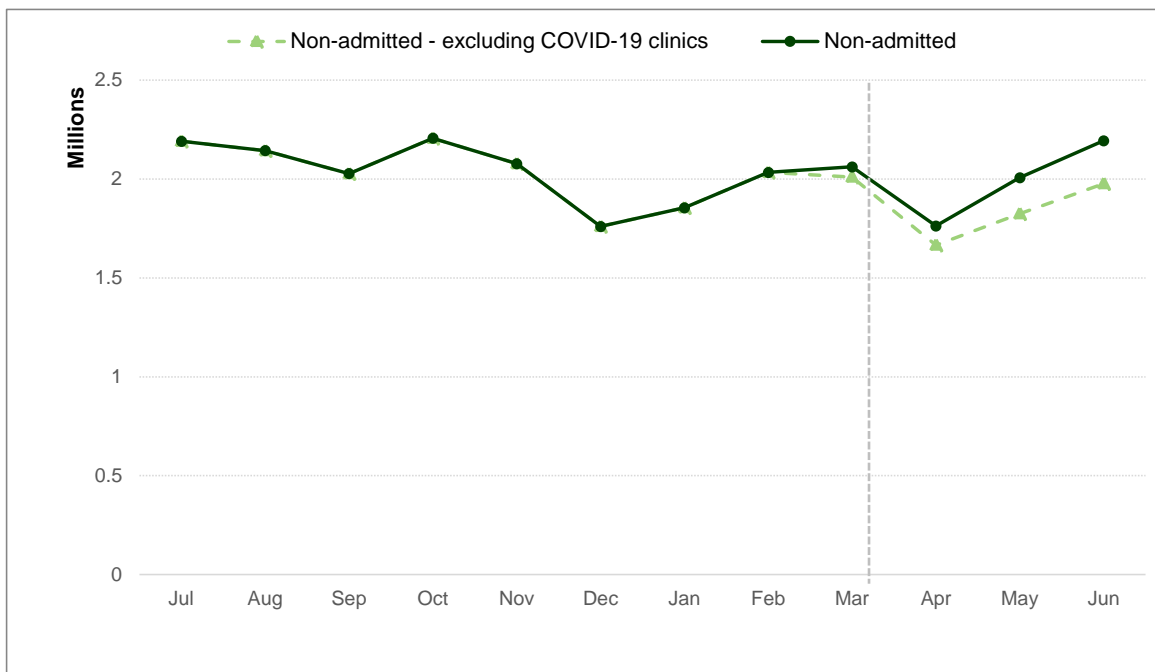
Figure 3 shows presentations by month over the 2019-20 financial year. The emergency department was the activity stream with the largest drop in activity due to the pandemic. The total number of presentations reduced from 712,192 in March 2020 to 518,890 in April 2020, representing a 27.1 per cent reduction.

Figure 3: Emergency department activity by month for the 2019-20 financial year



Non-admitted activity also experienced an initial reduction in the level of service events. However, unlike other activity streams, activity then increased, driven by the reporting of COVID-19 diagnostics during the COVID-19 period. Figure 4 shows service events by month over the 2019-20 financial year, both including and excluding COVID-19 clinics.

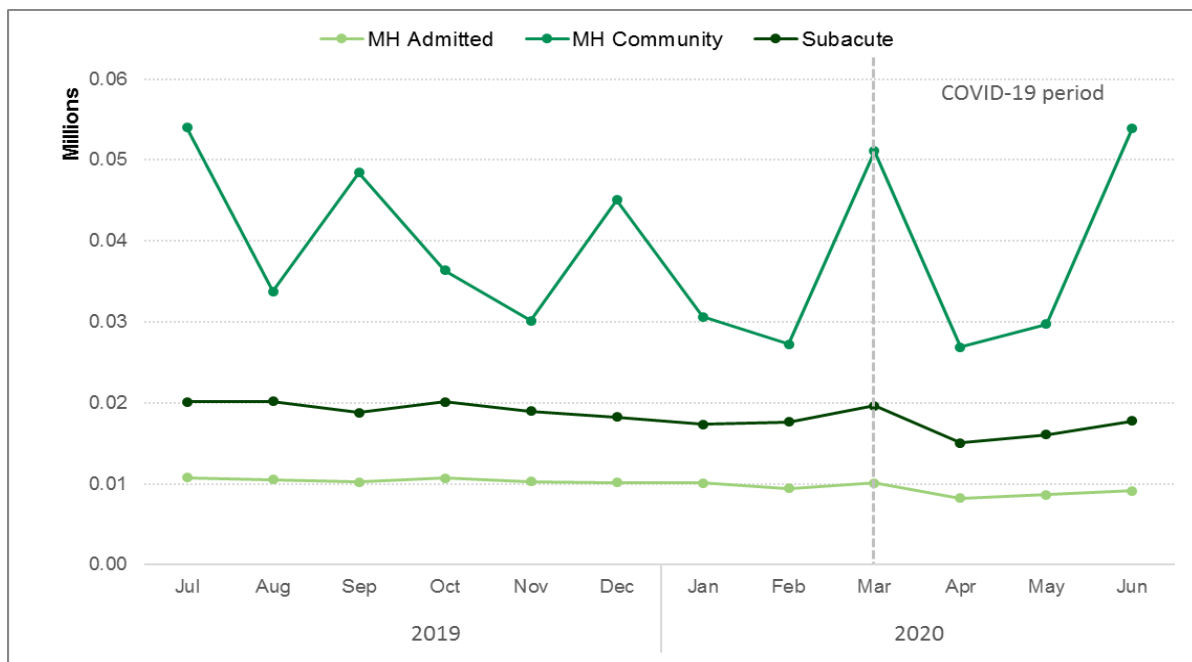
Figure 4: Non-admitted activity by month for the 2019-20 financial year



Including all Tier 2 clinics, in March 2020 there were 2,061,642 service events, reducing to 1,762,778 service events in April 2020 (a 14.5 per cent reduction). This then increased to 2,193,611 service events in June 2020, which was higher than pre-COVID levels. Excluding the COVID-19 clinics, there were 1,977,129 service events in June 2020.

In the case of the smaller activity streams (Mental Health and subacute care), Figure 5 shows COVID-19 also resulted in reductions in activity in the last quarter of the financial year, with an increase again towards the end of the year.

Figure 5: Subacute and Mental health activity streams through FY2019-20



The pattern of community mental health care is volatile and therefore is difficult to measure the impact of the pandemic.

9.2 Approach to costing for COVID-19

The COVID-19 pandemic brought a reduction in hospital activity in some areas but also resulted in additional expenditure, including:

- An increase in the required cleaning;
- Procurement of additional personal protective equipment (PPE);
- Changes in processes which required additional staffing e.g. segregation of areas for COVID-19 suspected and/or infected patients, additional workforce to cover extra shifts, new areas or new responsibilities (e.g. temperature checks);
- Additional expenditure related to COVID-19 diagnostics, which was largely captured in the outpatient data.

The Commonwealth and all state and territory governments entered into the National Partnership on COVID-19 Response (NPCR). This program was aimed to provide financial assistance, setting out the funding arrangements to cover many of the additional costs incurred in response to the COVID-19 outbreak.

In June 2020, IHPA released a set of guidelines¹¹ for the costing and pricing of activity for the duration of the NPCR.

Although provided with the guidelines by IHPA, due to the timing and uncertainty of the pandemic response experienced by jurisdictions, states and territories undertook different approaches to costing for Round 24.

Table 18 shows the approach taken by the states and territories for costing Round 24. NSW, South Australia, Western Australia, Tasmania and the Northern Territory split the year into two costing periods (pre-COVID-19 and COVID-19), while Victoria, Queensland and the ACT costed as an annual period. These differences in costing approach resulted in variations in how costs were spread across time periods and episodes. The impact of this is that the average cost per separation appears higher in the “COVID-period” for those state and territories that took a two costing period approach. On an annualised basis, there is less variation between the two approaches.

Table 18: Costing approach split by jurisdiction

Jurisdiction	Single annual costing period	Split into 2 periods (pre-COVI-19 & COVID-19)
NSW		✓
Vic	✓	
Qld	Mixed*	
SA		✓
WA		✓
Tas		✓
NT		✓
ACT	✓	

*Some LHNs costed annually while others split into two periods

In the case of Queensland, the majority of the health services costed as an annual period, with the exception of three health services which took a two costing period approach.

Some of the additional expenditure incurred in the 2019-20 financial year was eligible for funding under the NPCR as part of the State Public Health Payment (SPHP). These costs were generally not included in the submission. Details on the treatment of SPHP funded costs by jurisdiction can be found in the Data Quality Statements.

9.3 Expenditure related to COVID-19

The following sections analyse the impact of COVID-19 on admitted acute, emergency department and non-admitted activity streams, comparing volume and average cost per unit (separation or service event) of COVID-19 records against non-COVID-19 records. COVID-19 records have been identified by flagging confirmed and suspected cases based on the diagnosis codes from the guidelines published by IHPA.

¹¹ <https://www.ihpa.gov.au/publications/covid-19-response-costing-and-pricing-guidelines>

9.3.1 Admitted acute care COVID-19 expenditure

In Round 24, there were 81,512 confirmed or suspected COVID-19 cases reported nationally, with 88.4 per cent reported in NSW, Victoria and Queensland. This represented 1.3 per cent of admitted acute records in the year.

Table 19 presents the number separations and average cost per separation for COVID-19 and non-COVID-19 episodes by jurisdiction. The average cost per separation of confirmed or suspected COVID-19 records was \$14,011, which was 2.7 times higher than the average cost per separation for non-COVID-19 records.

The higher additional cost for COVID-19 records was mostly driven by the additional care required and longer lengths of stay. Models of care for COVID-19 (or suspected COVID-19) patients varied by jurisdiction, with some admitting the patient for the entire suspected infectious period. This would also have influenced the average cost compared to non-COVID-19 patients.

Table 19: Admitted acute average cost for COVID-19 separations Round 24, by jurisdiction

Jurisdiction	Non-COVID-19		COVID-19	
	Number of separations	Average cost per separation	Number of separations	Average cost per separation
		(\$)		(\$)
NSW	1,569,428	5,671	28,765	14,211
Vic	1,643,570	4,789	28,110	12,524
Qld	1,494,012	4,778	15,204	14,854
SA	385,695	6,246	1,811	15,114
WA	560,454	5,717	4,446	15,319
Tas	122,623	6,540	921	22,291
NT	177,001	3,670	1,874	18,145
ACT	107,553	6,047	381	14,159
National	6,060,336	5,218	81,512	14,011

9.3.2 Emergency department COVID-19 expenditure

For emergency department, there were 99,579 confirmed/suspected COVID-19 records nationally. NSW and Victoria had the majority of these records, making up 93.5 percent.

Table 20 presents the number and average cost per presentation for COVID-19 and non-COVID-19 records by jurisdiction. Nationally, the average cost per presentation was \$804, but this varied by jurisdiction between \$522 (ACT) to \$1,706 (Western Australia). The average cost per presentation for COVID-19 records was only 3.8 per cent higher than the non-COVID-19 records (\$775).

Table 20: Emergency department average cost for COVID-19 service events Round 24, by jurisdiction

Jurisdiction	Non-COVID-19		COVID-19	
	Number of presentations	Average cost per presentation	Number of presentations	Average cost per presentation
		(\$)		(\$)
NSW	2,514,166	769	57,579	628
Vic	1,881,497	708	35,493	1,017
Qld	1,946,379	739	1,188	1,498
SA	529,233	827	962	981
WA	746,786	921	901	1,706
Tas	154,216	1,012	33	1,317
NT	162,346	831	2,438	1,230
ACT	138,774	960	985	522
National	8,073,397	775	99,579	804

9.3.3 Non-admitted COVID-19 expenditure

In the case of non-admitted activity, there were three main Tier 2 clinics under which COVID-19 cases were reported:

- 20.57: COVID-19 Response
- 30.09: COVID-19 Diagnostics
- 40.63: COVID-19 Response

COVID-19 activity reporting varied significantly across the states and territories, both in terms of volume but also the Tier 2 clinics which were utilised. NSW reported the most activity, with 319,758 service events reported to clinic 30.09, while Victoria only reported 49 service events in clinic 20.57.

Table 21: Non-admitted average cost for COVID-19 Tier 2 clinics for Round 24, by jurisdiction

Jurisdiction	20.57 Clinic		30.09 Clinic		40.63 Clinic		Total	
	Number of service events	Average cost per service event	Number of service events	Average cost per service event	Number of service events	Average cost per service event	Number of service events	Average cost per service event
		(\$)		(\$)		(\$)		(\$)
NSW	0	0	319,758	110	0	0	319,758	110
Vic	49	954	0	0	0	0	49	954
Qld	28,903	437	297	524	41,937	327	71,137	373
SA	522	265	0	0	60,533	172	61,055	173
WA	13,889	641	46	3,641	39,950	239	53,885	345
Tas	0	0	36,891	65	0	0	36,891	65
NT	2,159	431	0	0	4,128	260	6,287	319
ACT	0	0	0	0	0	0	0	0
National	45,522	498	356,992	106	146,548	237	549,062	173

Nationally, the average cost per service event across all Tier 2 clinic types was \$173, though this varied between \$65 for Tasmania to \$954 for Victoria. The average cost per service event also varied by Tier 2 clinic, with 20.57 having the largest average cost at \$498 compared to \$10 for 30.09

Data quality statements

In Round 24 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.

For Round 24, each jurisdiction provided details on the changes/adjustments to their costing approach due to COVID-19. Their actions taken and the level of detail varies per jurisdiction.

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 website.

Appendix A: NHCDC Report Appendix Tables

The Excel document containing the NHCDC Report Appendix tables are available on the IHPA site. The tables included in the appendix are listed below.

No	Table title
1	NHCDC Round 22 to 24 summary, actual, by jurisdiction and stream
2	NHCDC Round 22 to 24 Direct and Overhead Expenditure, by stream
3	Cost Weights FOR AR-DRG VERSION 10.0, Round 24 (2019-20)
4	NHCDC Round 22 to 24 admitted acute summary, by jurisdiction
5	NHCDC Round 22 to 24 admitted acute cost bucket average cost per separation, by jurisdiction
6	NHCDC Round 22 to 24 admitted acute line item average cost per separation, by jurisdiction
7	NHCDC Round 22 to 24 admitted acute overnight and sameday, by jurisdiction
8	NHCDC Round 22 to 24 Emergency Department by jurisdiction
9	Emergency care summary table, AECC Version 1.0 Round 24 (2019-20)
10	NHCDC Round 22 to 24 emergency department cost bucket average cost per separation, actual, by jurisdiction
11	NHCDC Round 22 to 24 Emergency Department line item average cost per separation, actual, by jurisdiction
12	Non-admitted care summary table, Tier 2 Version 6.0, Round 24 (2019-20)
13	NHCDC Round 22 to 24 Non-admitted summary by Tier 2 class
14	NHCDC Round 22 to 24 Non-admitted summary by jurisdiction
15	NHCDC Round 22 to 24 Non-admitted cost bucket per service event by jurisdiction
16	NHCDC Round 22 to 24 Non-admitted line item average cost per service event, actual, by jurisdiction
17	NHCDC Round 22 to 24 subacute summary care type, by jurisdiction
18	NHCDC Round 24 subacute ANSNAP V4 summary
19	NHCDC Round 22 to 24 admitted subacute cost bucket average cost per separation, actual, by jurisdiction
20	NHCDC Round 22 to 24 subacute line item average cost per separation, actual, by jurisdiction
21	NHCDC Round 22 to 24 Other stream summary, by jurisdiction
22	NHCDC Round 22 to 24 Organ Procurement cost bucket average per separation by jurisdiction
23	NHCDC Round 22 to 24 Mental Health by jurisdiction
24	Admitted mental health summary table by AR-DRG VERSION 10.0, Round 24 (2019-20), Episodes only
25	Admitted mental health summary table by AMHCC VERSION 1.0, Round 24 (2019-20), Phases only
26	Community mental health summary table by AMHCC VERSION 1.0, Round 24 (2019-20)
27	NHCDC Round 22 to 24 mental health admitted, community and unlinked cost bucket average cost per episode, actual, by jurisdiction
28	NHCDC Round 22 to 24 mental health admitted, community and unlinked line item average cost per episode, actual, by jurisdiction

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