

Health

Overview

- 1 The health assessment covers state and territory (state) recurrent spending on public hospitals, community and public health services, and patient transport. It has the following components:
 - admitted patients
 - emergency departments
 - non-admitted patients
 - community and public health
 - non-hospital patient transport
 - state spending on COVID-19 health services associated with the national partnership agreement.
- 2 The assessment recognises that health expense needs are influenced by the following.
 - Age structure — states with a higher proportion of older people have higher spending needs.
 - First Nations people — states with more First Nations people have higher spending needs.
 - Socio-economic status — states with more people of low socio-economic status have higher spending needs.
 - Remoteness — states face higher costs if they have greater concentrations of people in remote areas where the costs of delivering health services are higher, people are more reliant on state provided services and patient transport costs are higher.
 - Non-state health services — availability of general practitioners, specialists and other private health professionals, and Commonwealth-funded Aboriginal Community Controlled Health Services, can affect state spending needs.
 - Wage costs — states facing greater wage cost pressures have higher spending needs.
 - COVID-19 expenses — states with higher COVID-19 health expenses covered by the national partnership agreement have higher expense needs.

Actual state expenses

- 3 The first step in calculating assessed expenses is identifying actual state expenses on health services.¹ States collectively spent 30.7% of their total recurrent expenses on health services in 2022–23. Table 1 shows expenses broken down by component and Table 2 outlines actual expenses by state in 2022–23.²

Table 1 Health expenses by component, 2022–23

	2022-23	
	\$pc	\$m
Admitted patients	2,356	61,975
Emergency departments	223	5,879
Non-admitted patients	328	8,622
Community and other health	596	15,692
Non-hospital patients transport	25	653
COVID health	70	1,831
Total	3,598	94,650
Proportion of total expenses (%)		30.7

Table 2 Health expenses by state, 2022–23

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Health (\$m)	25,000	25,096	20,512	11,258	6,581	2,594	1,859	1,751	94,650
Health (\$pc)	3,031	3,736	3,808	3,971	3,584	4,529	4,030	6,969	3,598
Proportion of total expenses (%)	25.3	31.9	34.9	33.1	35.2	36.5	29.2	28.8	30.7

Structure of assessment

- 4 The health assessment has 5 ongoing components. Each of these has socio-demographic and wage cost drivers. A non-state sector services adjustment is applied in the admitted patient, emergency department, non-admitted patient and community and public health components, and a cross-border services adjustment is applied in the community and public health component. There is also an additional temporary component to assess expenses associated with state spending on the National Partnership on COVID-19 Response.³

¹ Adjusted budget calculations use ABS Government Finance Statistics data to determine actual state expenses. For further details see the adjusted budget chapter of the *Commission's Assessment Methodology*.

² Tables in this chapter, unless otherwise stated, use 2022–23 data.

³ A separate assessment of the expenses associated with the National Partnership on COVID-19 Response will be undertaken for the recommendation of GST relativities for 2025–26 and 2026–27.

5 Table 3 outlines the drivers that influence expenses in each component.

Table 3 Structure of the health assessment

Component	Driver	Influence measured by driver
Admitted patients	Socio-demographic composition	Age, Indigenous status, remoteness and socio-economic status influence the use and cost of services.
	Non-state sector	Non-state services such as private health insurance-funded hospital services affect state expenses.
	Wage costs	Differences in wage costs between states affect costs.
Emergency departments	Socio-demographic composition	Age, Indigenous status, remoteness and socio-economic status influence the use and cost of services.
	Non-state sector	Non-state services such as Commonwealth-funded general practitioner services affect state spending.
	Wage costs	Differences in wage costs between states affect costs.
Non-admitted patients	Socio-demographic composition	Age, Indigenous status, remoteness and socio-economic status influence the use and cost of services.
	Non-state sector	Non-state services such as Commonwealth-funded specialists and private health professionals affect state expenses.
	Wage costs	Differences in wage costs between states affect costs.
Community and public health	Ambulatory community mental health services	Age, Indigenous status, remoteness and socio-economic status influence the use and cost of services.
	Balance of the component – socio-demographic composition	Age, Indigenous status, remoteness and socio-economic status influence the use and cost of services.
	Non-state sector	Non-state services such as Commonwealth-funded general practitioners (GPs) affect state expenses.
	Cross-border	The ACT incurs additional costs in providing services to NSW residents.
	Wage costs	Differences in wage costs between states affect costs.
Non-hospital patient transport	Socio-demographic composition	Remoteness influences the use and cost of services.
	Wage costs	Differences in wage costs between states affect costs.
National Partnership on COVID-19	Actual per capita	State expenses reflect circumstances beyond state control.

Data

- 6 The main data source for calculating category and component expenses is state budget data sourced from ABS Government Finance Statistics (GFS). Several other data sources are used when more disaggregated expense data are required.
 - National Hospital Cost Data Collection (NHCDC) data from the Independent Health and Aged Care Pricing Authority (IHACPA) are used to split GFS outpatient expenses between the non-admitted patient and emergency department components.
 - Productivity Commission data on state spending on specialised mental health services, published annually in the *Report on Government Services*, are used to estimate the share of ambulatory mental health expenses in gross community and public health expenses.
 - State-provided data are used to determine the proportion of patient transport expenses that relate to land ambulance or inter-hospital transfers, and non-hospital patient transport (aero-medical ambulance and patient assisted travel schemes).
 - National Health Funding Body data are used for expenses associated with the National Partnership on COVID-19 Response.
- 7 Activity data for state-funded health services are sourced from the Independent Health and Aged Care Pricing Authority and the Australian Institute of Health and Welfare (AIHW). Activity data for the non-state sector adjustments are sourced from the AIHW, Services Australia and the Australian Prudential Regulation Authority (APRA).

8 The data used in the assessment are outlined in Table 4.

Table 4 Data used in the health assessment

Source	Data	Updated	Component
IHACPA	National Weighted Activity Units	Annually	Admitted patients
			Non-admitted patients
			Emergency departments
			Community and public health
IHACPA	National Efficient Cost (NEC) funding formula and data on block funded small rural hospitals	Annually	All hospital components
	NHCDC ED and NAP expenses	Annually	Emergency departments and non-admitted patients
AIHW	Admitted patient private health insurance-funded separations	Annually	Admitted patients
	Medicare bulk billed benefits paid by Indigenous status	Annually	Non-admitted patients Emergency departments Community and public health
	Community mental health service contacts	Annually	Community and public health
	State expenses on community and public health services	5-yearly	Community and public health
Services Australia	Medicare bulk billed benefits paid	Annually	Non-admitted patients
			Emergency departments
			Community and public health
APRA	Private health insurance benefits paid by state	Annually	Admitted patients
Productivity Commission	ROGS state expenditure on specialised mental health services	Annually	Community and public health
States	Non-admitted patient referrals after hospital admission	5-yearly	Non-admitted patients
	ACT-NSW cross-border community health	5-yearly	Community and public health
	Aero-medical and Patient Assisted Transport Scheme expenses	5-yearly	Non-hospital patient transport
NHFB	National Partnership on COVID-19 Response reconciled expenses	Annually	National partnership on COVID-19 Response
	Net cross-border national weighted activity units by state	Annually	Health investment assessment

Note: Data for the wage costs adjustment are also included in this assessment.

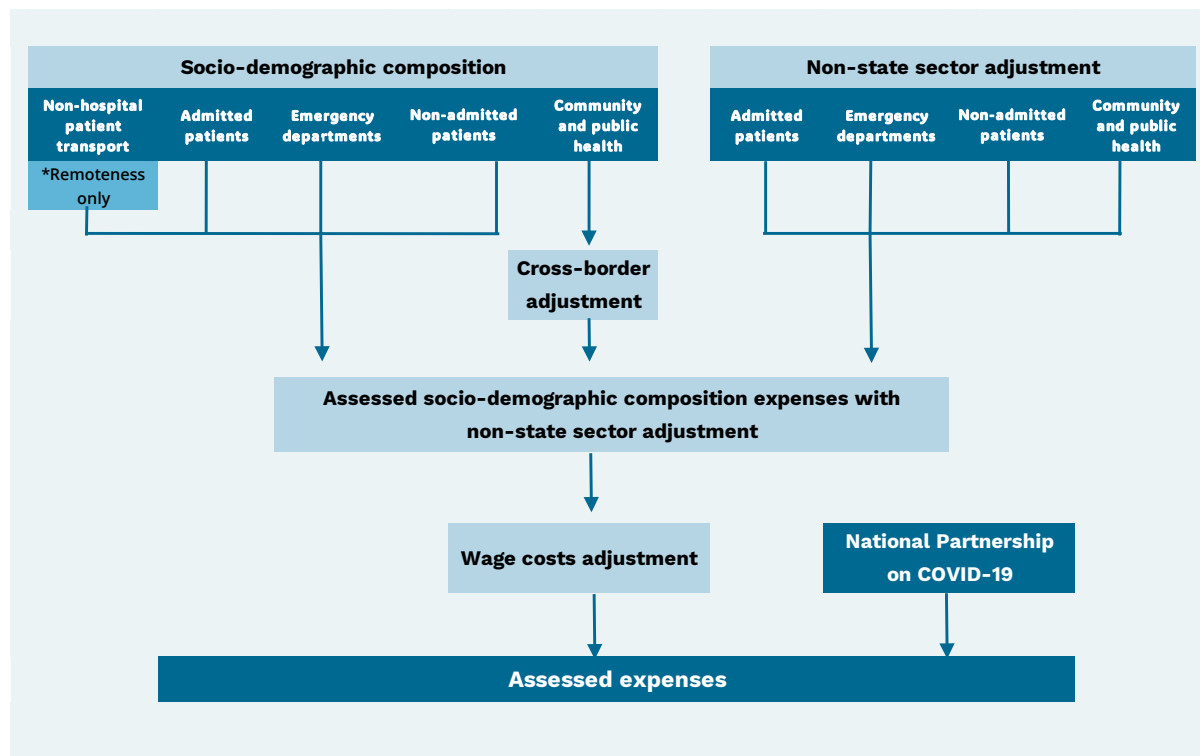
The adjusted budget data sources are outlined in the adjusted budget chapter of the *Commission's Assessment Methodology*.

Acronyms: APRA – Australian Prudential Regulation Authority, IHACPA – Independent Health and Aged Care Pricing Authority, NEC – National Efficient Cost, NHCDC – National Hospital Cost Data Collection, NHFB – National Health Funding Body, ROGS – Report on Government Services.

Assessment method

9 Figure 1 shows a generalised flow diagram of the health assessment.

Figure 1 Flow diagram of the health assessment



- 10 There are common elements in the assessment method for admitted patients, emergency departments and non-admitted patients (the public hospital components). The description of these components has been grouped together.
- 11 The components covering community and public health, non-hospital patient transport and the National Partnership on COVID-19 Response are described separately.

Public hospitals components

- 12 Spending on hospital services represent the largest proportion of the health category and includes 3 components.
- Admitted patient services — medical care for public patients admitted into public or private hospitals, and land ambulance services.
 - Emergency department — emergency care delivered to patients at public hospitals.
 - Non-admitted patient services — outpatient type services provided at public hospitals such as obstetrics, gynaecology, cardiology, pathology, radiology and imaging services.

Socio-demographic composition assessment

Drivers

- 13 The assessment recognises that the socio-demographic composition of the population with respect to Indigenous status, socio-economic status, remoteness and age affect the use and cost of health services in each state.
- 14 The population groups for these variables are outlined in Table 5.

Table 5 Socio-demographic population groups used in the health assessment

Indigenous status	Socio-economic status	Remoteness area	Age
First Nations	Bottom quintile	Major cities	0 to 14
Non-Indigenous	Middle 3 quintiles	Inner regional	15 to 44
		Outer regional	45 to 64
	Top quintile	Remote	65 to 74
		Very remote	75+

- 15 The 5 socio-economic status quintiles are grouped into 3 bands — the bottom quintile, the 3 middle quintiles and the top quintile. For First Nations and non-Indigenous people living in remote and very remote regions, there is not a strong relationship between socio-economic quintiles and hospital spending. Hence the population in remote and very remote regions are not disaggregated by socio-economic status. Age is classified into 5 groups with the highest age band set at 75+.
- 16 To measure hospital use by socio-demographic group, the assessment uses national weighted activity unit (NWAU) data from the Independent Health and Aged Care Pricing Authority. The Independent Health and Aged Care Pricing Authority costs all hospital activity in Australia and expresses these costs as NWAUs.
- A NWAU is a cost-weighted measure of hospital activity. The average hospital service across Australia is worth one NWAU; the most intensive, expensive and lengthy activities are worth multiple NWAUs; and the simplest and least expensive are worth fractions of an NWAU.
 - NWAU data reflect the medical cost of different procedures and other factors (such as patient remoteness and Indigenous status) that affect the overall cost of each hospital service.
 - NWAU data cover the activity of both activity based funded (ABF) hospitals and block-funded hospitals, with the latter tending to be small and more remote.
- 17 The public hospital assessments are based on NWAUs specific to admitted patients, emergency departments and non-admitted patients. The NWAU data are cross-classified by the socio-demographic groups in Table 5.

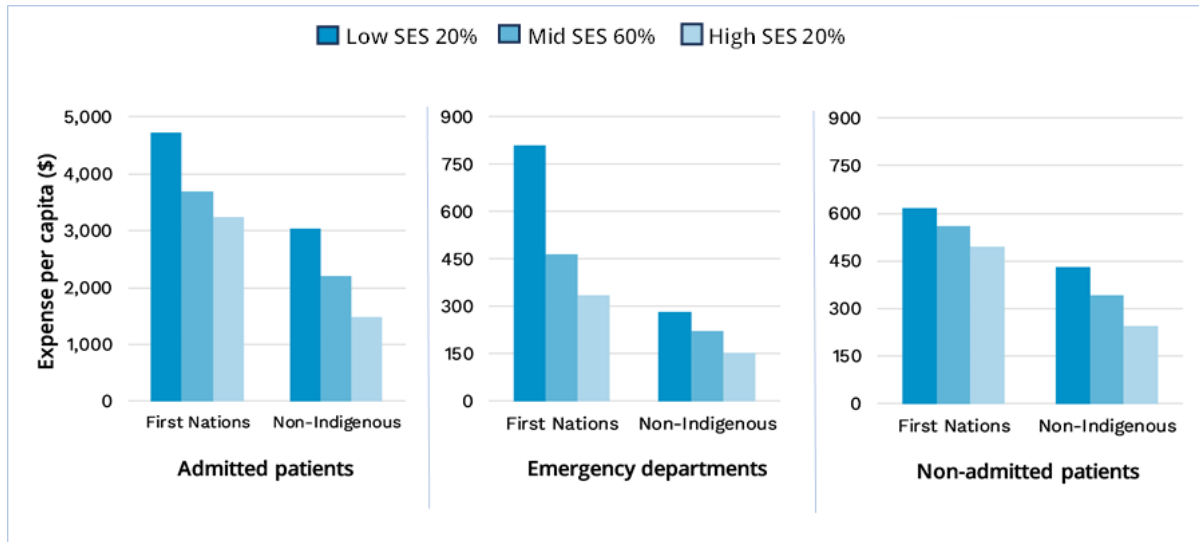
Indigenous status and socio-economic status

- 18 The health assessment recognises the differences in spending on First Nations and non-Indigenous people as well as differences in spending on people in areas with different socio-economic status. Two indicators of socio-economic status are

used — the Indigenous Relative Socioeconomic Outcomes Index (IRSEO) and the Non-Indigenous Socio-Economic Indexes for Areas (NISEIFA).⁴

19 Figure 2 shows that spending on health services varies for First Nations and non-Indigenous people by socio-economic status across the 3 components.

Figure 2 Public hospital expenses per capita by socio-economic and Indigenous status, 2022–23



Note: Excludes remote areas as the population in remote and very remote regions are not disaggregated by socio-economic status.

Source: Commission calculation using IHACPA unpublished national weighted activity unit data and ABS unpublished GFS expenses and population data.

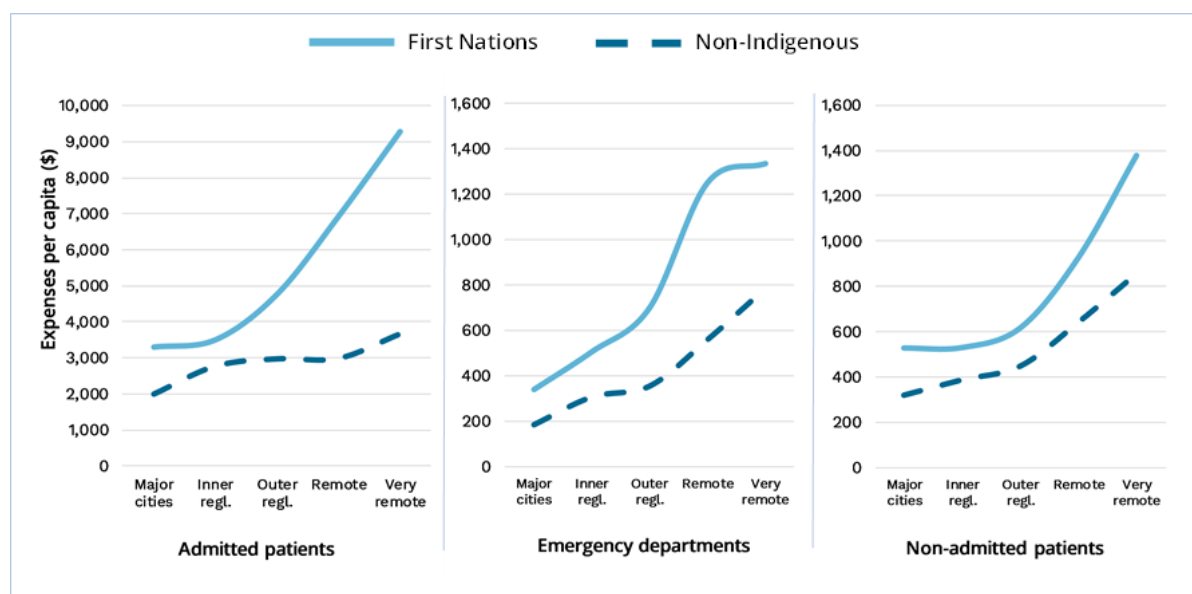
Remoteness

20 Differences in the use and cost of providing services by remoteness regions affect state expenses. The NWAU data include remoteness adjustments for patients living in outer regional and remote areas, and hospital treatment adjustments to reflect the additional cost to provide services in remote and very remote locations.

21 Figure 3 shows that spending per capita on people living in remote and very remote areas is significantly higher than spending per capita on people in major cities. This is due to a mix of factors, such as more remote patients having poorer health and thus greater use of health services, the higher costs of providing services in more remote areas, and lack of non-state funded health services in more remote areas.

⁴ These indexes are based on the same variables and methodology as the ABS Socio-Economic Indexes for Areas (SEIFA) – Index of Relative Socio-economic Disadvantage.

Figure 3 Public hospital expenses per capita by remoteness, 2022–23



Source: Commission calculation using IHACPA unpublished national weighted activity unit data and ABS unpublished GFS expenses and population data.

Service delivery scale

- 22 States face higher service delivery costs in regions where the small size and dispersed nature of communities lead to above-average staffing ratios. While NWAU data for activity based funded hospitals capture all regional costs for larger hospitals, NWAU data for block-funded hospitals are adjusted by the Commission to capture service delivery scale costs not reflected in block-funded NWAU data.⁵
- 23 Table 6 shows the estimated cost of block-funded hospitals based on activity based funding and block-funding arrangements for 2022–23. The ratio of block funded to activity based funding provides the basis for the service delivery scale adjustments.

Table 6 Block funded adjustment factors for estimating service delivery scale, 2022–23

Hospital remoteness	Activity based costing (a)	Block-funded costing (b)	Block-funded adjustment
	\$m	\$m	ratio
Inner regional	477	644	1.35
Outer regional	666	963	1.45
Remote	166	258	1.55
Very remote	202	318	1.58

(a) Calculated based on the [2022-23 National Efficient Price](#) (NEP) multiplied by NWAU for small rural block-funded hospitals.

(b) Calculated based on the [2022-23 National Efficient Cost](#) (NEC) funding formula for small rural block-funded hospitals.

Source: Commission calculation based on the NEP, NEC funding formula and IHACPA unpublished data on small rural block-funded hospitals for 2022–23.

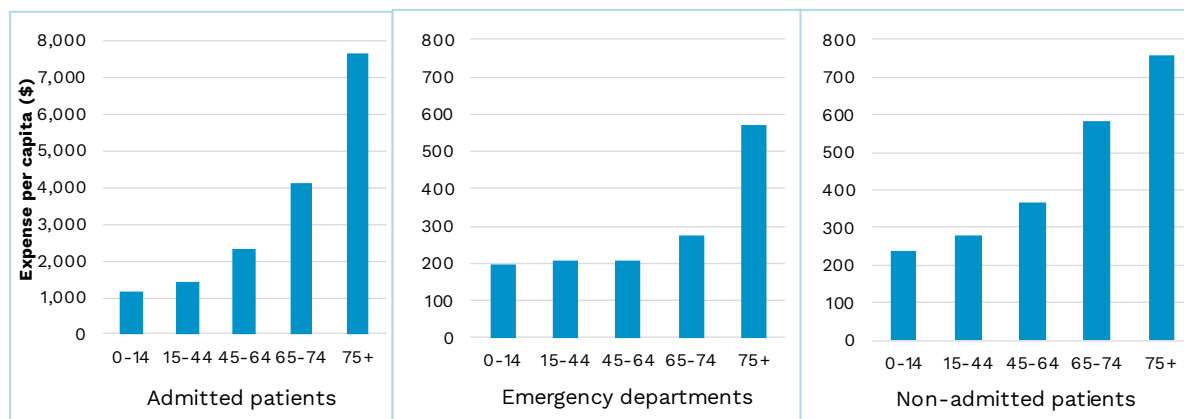
⁵ There are similar adjustments in the community and public health assessment that are applied to all activity.

24 The service delivery scale adjustments are updated each year, as the Independent Health and Aged Care Pricing Authority updates its National Efficient Price and National Efficient Cost funding formula annually.

Age

25 Admitted patient, emergency department and non-admitted patient services all have higher expense per capita as age increases. Figure 4 shows that the 75+ and the 65–74 age groups have the highest expense per capita for all components.

Figure 4 Public hospital expenses per capita by age, 2022–23



Source: Commission calculation using IHACPA national weighted activity unit data and ABS unpublished GFS expenses and population data.

Box 1 Calculating socio-demographic composition assessed expenses

The following calculation is undertaken for the 3 hospital components as well as the community and public health component.

The socio-demographic composition (SDC) assessed expenses for each state are derived by:

- allocating total national expenses for each component to each of the socio-demographic groups in Table 5 based on the distribution of NWAU
 - i.e. SDC expenses = total expenses * (SDC NWAU / total NWAU)
- dividing the expenses attributable to each socio-demographic group by the national population in that group to obtain expenses per person for each socio-demographic group
 - i.e. SDC expenses per person = SDC expenses / SDC population
- multiplying the national average expense per person for each socio-demographic group by the number of people in that group in each state
 - i.e. assessed spending per SDC group = SDC expenses per person * state population in SDC group
- summing assessed spending for all socio-demographic groups to give total assessed expenses for each state.

See Table 7 for a sample of this calculation.

Table 7 Sample matrix illustrating the socio-demographic composition assessed expenses calculation

Indigenous status	Remoteness x SES	Age	SDC	SDC	SDC	SDC expenses	No. of persons (NSW)	Assessed spending (NSW)
			NWAU	expenses	population	per person		
			'000	\$m	no.	\$pc	no.	\$'000
Non-Indigenous	Major cities 1. Low SES 20%	0-14	100	847	581,919	1,455	226,933	330,170
Non-Indigenous	Major cities 1. Low SES 20%	15-44	245	2,083	1,358,206	1,534	532,294	816,454
Non-Indigenous	Major cities 1. Low SES 20%	45-64	247	2,101	734,800	2,859	294,106	840,894
Non-Indigenous	Major cities 1. Low SES 20%	65-74	165	1,401	293,274	4,777	114,951	549,158
Non-Indigenous	Major cities 1. Low SES 20%	75+	228	1,935	265,883	7,278	102,993	749,547
Non-Indigenous	Major cities 2. Middle SES 60%	0-14	235	1,991	1,928,787	1,032	531,601	548,848
Non-Indigenous	Major cities 2. Middle SES 60%	15-44	635	5,391	4,618,719	1,167	1,310,742	1,529,927
Non-Indigenous	Major cities 2. Middle SES 60%	45-64	580	4,922	2,472,166	1,991	694,169	1,382,199
Non-Indigenous	Major cities 2. Middle SES 60%	65-74	386	3,279	894,988	3,663	253,438	928,393
Non-Indigenous	Major cities 2. Middle SES 60%	75+	604	5,128	733,228	6,994	210,937	1,475,302
Non-Indigenous	Major cities 3. High SES 20%	0-14	71	601	801,906	749	319,311	239,201
Non-Indigenous	Major cities 3. High SES 20%	15-44	190	1,614	1,729,472	933	673,123	628,137
Non-Indigenous	Major cities 3. High SES 20%	45-64	168	1,424	1,134,181	1,256	433,776	544,785
Non-Indigenous	Major cities 3. High SES 20%	65-74	116	989	381,045	2,594	144,585	375,089
Non-Indigenous	Major cities 3. High SES 20%	75+	211	1,791	270,843	6,613	108,237	715,803

Non-state sector health services assessment

- 26 State governments are not the sole providers and funders of health services. Health services are also provided by private and community organisations and funded from private sources and/or the Commonwealth. The health assessment recognises the influence of non-state health services on state health expense needs in 2 ways.
- The socio-demographic composition assessment recognises that the level of state services at the national level for socio-demographic groups may vary due to the provision of non-state sector services. For example, the level of state services is higher in remote areas in part due to lower levels of non-state sector services in these areas.
 - The non-state sector adjustment recognises that the different levels of private health services in each state affects the need for state health spending.
- 27 The non-state sector adjustment is the difference between the value of non-state services states are assessed to need to achieve the national average level of provision, given their socio-demographic profile, and the actual provision of substitutable non-state sector services.
- 28 The calculation of the non-state sector adjustment requires estimates of:
- the proportion of state spending on health services for which 'substitutable services' exist in the non-state sector
 - For a health service to be considered 'substitutable' it needs to be 'comparable' with a service provided by the non-state sector and potentially used by patients instead of the equivalent service in the state sector.
 - an indicator of non-state sector activity.

Levels of non-state sector substitutability

Admitted patients

29 The admitted patient substitutability level is determined using the average result from 2 methods.

Method 1

30 The level of substitutability between state and non-state admitted patient services is influenced by similar activity in the state and non-state sectors (comparable services), and the proportion of the population with private hospital health insurance or prepared to pay for their own hospital expenses (self-funded patients).

- The average estimated share of comparable services (the proportion of admitted patient services that are also provided in the non-state sector) is 54%.
- The proportion of the population with private health insurance hospital coverage is around 45%, while patients who self-insure constitute about 4%. In total around 49% of people can potentially afford to use private admitted patient services.

31 This suggests an average potential substitutability level of 26% (54% * 49%). This range would be an upper bound, as patients do not always choose to utilise their private health insurance due to policy excesses and gap payments (Table 8).

Method 2

32 An alternative approach is to limit the concept of substitutability to private patients treated in public hospitals. Between 2018–19 to 2021–22, around 12% of public hospital separations were privately funded, representing around 8% of public hospital funding. This would be a lower bound for the admitted patient non-state sector substitutability level. Activity in private hospitals would relieve some pressure on public hospitals even though the extent of such relief is uncertain.

33 Considering the upper bound of 26% and the lower bound of 8%, the substitutability level is set at the midpoint, 17% (Table 8). This level will be maintained for the 2025 Review.

Table 8 Admitted patients substitutability level

	2020-21	2021-22	2022-23	Average
	%	%	%	%
Method 1				
Public hospital services with similar non-state sector services	53	53	55	54
Share of population				
With private health insurance (PHI)	44	45	45	
Self-funded	4	4	4	
Total	48	49	49	
Method 1 substitutability range	26	26	27	26
	2019-20	2020-21	2021-22	
Method 2				
Share of privately funded public hospital separations (cost)	8	8	7	
Method 2 substitutability level				8
AP substitutability level				17

Source: Commission calculation using AIHW and APRA data.

Emergency departments

- 34 Similar to admitted patients, the non-state sector can provide some emergency type services. For example, General Practitioner (GP) clinics can treat many of the less severe emergency department presentations.
- 35 The AIHW has developed a measure of the use of emergency departments for lower urgency care. The most recent data (Table 9) show that, on average, 35% of emergency department presentations may be characterised as lower urgency presentations.⁶
- 36 The AIHW data on lower urgency presentations are translated into the equivalent proportion of GP type presentations.⁷ Based on the Australasian College for Emergency Medicine (ACEM) concept, GP-type presentations were estimated at Australian Institute of Health and Welfare (AIHW), 50% of lower urgency presentations in major cities and 60% in other remoteness regions. On average about a fifth (19%) of all emergency department presentations are GP-type services (i.e comparable services) (Table 9).

Table 9 Proportion of GP treatable emergency department presentations, 2021–22

	No. of ED presentations		% total presentations	
	Total	Lower urgency presentations	Lower urgency presentations	GP-treatable presentations
	000	000	%	%
Major cities	5,525	1,861	34	17
Inner regional	1,940	733	38	23
Outer regional	913	276	30	18
Remote/very remote	298	177	59	36
Total	8,676	3,048	35	19

Note: GP-treatable presentations were estimated at 50% of lower urgency presentations in major cities and 60% in other remoteness regions.

Source: Commission calculation using AIHW data.

- 37 Independent Health and Aged Care Pricing Authority data for 2021–22 show that emergency department triage 4 and 5 (semi-urgent or non-urgent presentations) make up 46% of total emergency department presentations, but only account for 33% of the costs, resulting in a cost to activity ratio of $0.33/0.46=0.72$. Applying this to the activity level of 19%, the proportion of emergency department spending on GP-type presentations is 14% for 2021–22 (Table 10).

⁶ The method developed by the AIHW defines low urgency presentations to an emergency department as any self-referred, non-ambulance, police or community service presentation classified as triage 4 and 5 (less urgent). The AIHW data notes indicate that care should be taken when using the data to identify 'avoidable GP-type' or 'GP-style' presentations because it is based on urgency (triage) categories which may not reflect the various factors that influence the use of EDs such as the complexity of a presentation, the patient's choice or condition, the most appropriate model of care for such presentations, or the accessibility and availability of primary and community health services.

⁷ The method developed by the Australasian College for Emergency Medicine defined a GP-type presentation at an emergency department to be any self-referred, non-ambulance patient with a medical consultation time less than one hour.

- 38 From 2018–19 to 2021–22 the method produces an average value of 13%. The substitutability level is set at 13% and this level will be maintained for the 2025 Review.

Table 10 Emergency departments substitutability level

	2018-19	2020-21	2021-22	Average
	%	%	%	%
Proportion of GP-type presentations (activity)	19	20	19	
Ratio of cost to activity	66	67	72	
Proportion of GP-type presentations (cost)	13	13	14	
ED substitutability level				13

Note: Data on low urgency ED presentations from AIHW were not available for 2019–20.

Source: Commission calculation using AIHW data and IHACPA unpublished data on the proportion of ED triage 4 and 5 NWAU (presentations) to total NWAU (presentations).

Non-admitted patients

- 39 State provided non-admitted patient services include a wide range of pre-hospital, post-hospital and clinical treatments. The majority of these services are also provided by the non-state sector, so potential substitutability is high. However, actual substitutability is lower because the demand for many state-provided non-admitted patient services that are directly linked to a previous public hospital admission would be less likely to be affected by the availability of similar services provided by the non-state sector – that is, patients are likely to use the public non-admitted patient service if they have already received a related admitted patient service in a public hospital.
- 40 The non-admitted patient substitutability level is determined using the average result from 2 methods.

Method 1: comparable state services

- 41 The first method estimates ‘comparable’ services based on similar services undertaken in public hospitals and the non-state sector. It involves the following steps.

Step 1. Identify and assess the level of substitutability for each group of services considering the range of services provided by the state and non-state sectors. The level of substitutability varies for each group of services.

- Procedure clinics, where surgeons or other medical specialists are the main service providers. Some private surgeons and medical specialists offer bulk billed services, so there is a non-state sector alternative. The relevant Medical Benefits Scheme services are operations and assistance at operations. The bulk billing rate for these services out of hospital is 64% and the average out-of-pocket cost is about \$101 per service.
- Medical consultation clinics, where general physicians or medical specialists are the main service providers. Some private specialists offer bulk billed services, so there is a potential non-state sector alternative. The relevant Medical Benefits Scheme (MBS) services are specialist attendances. The bulk billing rate for these services out of hospital is 43% and the average out-of-pocket cost is about \$97 per service.

- Diagnostic clinics, which states advise are generally bundled with the requesting specialist. In the calculation that follows, diagnostic services are bundled with medical consultation clinics.
- Allied health clinics, where allied health professionals or clinical nurse specialists are the main service providers. Although all state-provided allied health services are also available in the private sector, most are linked to an earlier admitted patient episode. In addition, only a very limited number of patients who meet specific eligibility requirements (for example, those with a chronic medical condition or with an assessed mental disorder) are eligible for Medicare allied health items. State provided allied health services are generally not substitutable.

Step 2. Estimate the expense weight or share of expenses for each group of services. This is calculated based on each group’s share of activity weighted by average expenses.

Step 3. Combine substitutability (from step 1) and expense weights (from step 2) for each group of services and sum the expenditure-weighted substitutability to obtain an estimate of the proportion of state services affected by the availability of comparable non-state services.

Step 4. Take account of the connection between the use of state non-admitted patient services and prior treatment as an admitted patient.

- Step 4 uses state data on the share of non-admitted patient referrals from prior admitted patient episodes. Data provided by 6 states indicate that, on average, 43% of state provided non-admitted patient services were related to a prior hospital admission. This implies that 57% (100% - 43%) of state services could be substitutable. When applied to the proportion of comparable services (64%), this yields a substitutability level of 37% (see Table 11).

Table 11 Non-admitted patients substitutability based on comparable services

Group of services	Share of activity	Average expenditure per service	Share of expenditure	Substitutable service available (a)	NAP substitutability method 1
	%	\$	%		%
Procedure clinics	12	507	18	Yes	18
Consultation clinics (b)	38	435	47	Yes	47
Allied health clinics	50	254	36	No	0
Comparable services (%)					64
Proportion of NAP episodes related to prior AP episodes					43
Substitutability (c)					37

(a) Although all state-provided allied health services are also available in the private sector, most are linked to an earlier admitted patient episode. In addition, only a very limited number of patients who meet specific eligibility requirements (for example, those with a chronic medical condition or with an assessed mental disorder) are eligible for Medicare allied health items. State-provided allied health services are generally not substitutable.

(b) Diagnostic services were grouped together with consultation clinics.

(c) Substitutability level using method 1 = % comparable services * (1-% of non-admitted patient episodes related to prior admitted patient episodes).

Source: Commission calculation using AIHW and IHACPA data.

Method 2: affordable services

42 The second method takes account of the out-of-pocket costs for services provided in the non-state sector. Data on bulk billed non-state services (private operations and specialist services) that are similar to state-provided services are used to estimate the amount of non-state services that are likely to be affordable and therefore potentially substitutable. The average substitutability level using this method is 20% (Table 12).

Table 12 Non-admitted patients substitutability based on affordable services

Group of services	Share of activity	Average expenditure per service	Share of expenditure	Substitutable service available (a)	NAP substitutability method 2
	%	\$	%	%	%
Procedure clinics	12	507	18	22	4
Consultation clinics	38	435	47	34	16
Allied health clinics	50	254	36	0	0
Total					20

Note: The proportions of private operations, specialist services and allied health services that are bulk billed are used as proxy for the availability of substitutable services.

Source: Commission calculation using AIHW and IHACPA data.

43 The midpoint of the results from the first and second methods is 28%. The substitutability level is set at 28% and this will be maintained for the 2025 Review.

Indicators of non-state sector activity

44 Each component uses different indicators to measure non-state service use. The data are disaggregated by age, Indigenous status, remoteness and socio-economic status using the socio-demographic groups shown in Table 5.

45 The indicator of non-state sector admitted patient activity is *private patient separations for private health insurance-funded admitted patients in private and public hospitals*. The data are sourced from the AIHW (for the calculation of assessed service need) and the Australian Prudential Regulation Authority (for the estimation of actual service provision).

46 The indicator of non-state sector emergency department activity is *Medicare bulk billed benefits paid from non-referred attendances* (i.e. GP services).

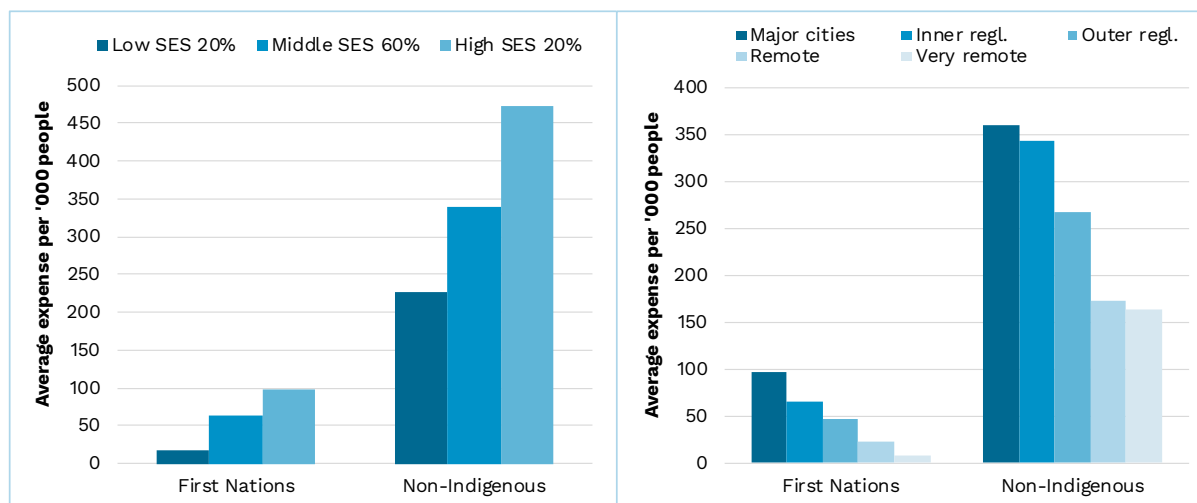
47 The indicator of non-state sector non-admitted patient activity is *Medicare bulk billed benefits paid from specialist attendances and operations*.

48 The Medicare data are mainly provided by Services Australia, with a subset of the data disaggregated by Indigenous status sourced from the AIHW. The Commission applies an iterative process to generate benefits paid cross-classified by age, Indigenous status, remoteness and socio-economic status.

49 The socio-demographic use profile for admitted patient non-state health services differs to the profile for state services. Figure 5 shows that spending per capita is higher for non-Indigenous people, increases with higher socio-economic status, is

highest for major cities and declines with increasing remoteness. The socio-demographic use profile for other non-state sector services (Medicare bulk billed non-referred services and specialists and operations) is similar to the use profile in public hospitals.

Figure 5 Admitted patient non-state sector activity: average expense per '000 people, by Indigenous status, socio-economic status and remoteness, 2021-22



Source: AIHW unpublished data on private health insurance funded admitted patient separations in public and private hospitals, and ABS unpublished GFS expenses and population data.

50 Table 13 summarises the substitutability levels and indicators to measure non-state services for each component of the health assessment. An explanation for the community and public health substitutability level is provided below (from paragraph 67).

Table 13 Substitutability levels and indicators

	Substitutability level	Indicator
Admitted patients	17%	Private patient separations
Emergency departments	13%	Bulk billed GP benefits paid
Non-admitted patients	28%	Bulk billed operations and specialist benefits paid
Community and public health	62%	Bulk billed GP benefits paid

51 A low-level discount (12.5%) is applied to the non-state sector adjustment for all components (including community and public health) due to uncertainty with the reliability of the data and the robustness of the method.

52 The non-state sector adjustment for each component is calculated following the approach outlined in Box 2.

Box 2 Calculating the non-state sector adjustments

The following calculation is undertaken for admitted patients, emergency departments and non-admitted patients, as well as community and public health.

Step 1: Calculate *national substitutable expenses* by multiplying the substitutability level by national component expenses.

Step 2: Calculate *assessed substitutable expenses* using the same process used to calculate state sector socio-demographic assessed expenses (Box 1) as explained below:

- Allocate *national substitutable activity* for each component to each of the socio-demographic groups based on the socio-demographic distribution of non-state sector activity.
- Divide national substitutable activity attributable to each socio-demographic group by the national population in that group.
- Multiply national average substitutable activity per capita for each socio-demographic group by the number of people in that socio-demographic group in each state.
- Summing *assessed substitutable activity* for all population groups gives total assessed substitutable activity for each state.
- *Assessed substitutable activity* for each state are scaled so the national total equals *national substitutable expenses* (this is *assessed substitutable expenses*).

Step 3: *Actual substitutable expenses* are calculated by taking *actual substitutable activity* for each state and scaling so the national total equals *national substitutable expenses*.

Step 4: The non-state sector adjustment is calculated by taking the difference between assessed and actual substitutable expenses.

Applying wage costs

53 Wages costs are a significant share of the total cost of providing health services. Differences in wage costs between states have a differential effect on the cost of providing hospital services. The health assessment uses the Commission's general method for measuring the influence of wage costs. Details on how this is calculated are in the wage costs chapter of the *Commission's Assessment Methodology*.

Community and public health services component

54 This component includes a broad range of community and public health services.

55 The assessment is made up of 2 sub-components.

- Ambulatory community mental health services, which represent around a fifth of component expenses.
- Other community health services (such as public dental and alcohol and other drug service) and public health services (such as cancer screening, organised immunisation, health promotion, communicable disease control and environmental health). These services represent the balance of component expenses.

Socio-demographic composition assessment

Drivers

56 As with hospital services, the community and public health assessment recognises that the use and cost of health services in each state is affected by the socio-demographic composition of the population with respect to Indigenous status, socio-economic status, remoteness and age.

Measuring activity for ambulatory community mental health services

57 Activity is measured using AIHW data on the number of service contacts in state funded and operated ambulatory (or non-residential) community mental health programs.

58 The activity data are not cost weighted so regional cost adjustments, based on the general regional cost gradient, and health-related service delivery scale adjustments are applied (Table 14).

59 The socio-demographic assessed expenses for ambulatory community mental health services are calculated using the same approach used for the public hospital components.

Table 14 Regional cost and service delivery scale adjustments applied to ambulatory mental health service contacts

	2019-20	2020-21	2021-22	2022-23
General regional cost gradient				
Major cities	1.00	1.00	1.00	1.00
Inner regional	1.01	1.01	1.01	1.01
Outer regional	1.03	1.03	1.03	1.03
Remote	1.18	1.17	1.18	1.18
Very remote	1.23	1.24	1.26	1.27
Service delivery scale ^(a)				
Major cities	1.00	1.00	1.00	1.00
Inner regional	1.04	1.04	1.04	1.04
Outer regional	1.12	1.14	1.11	1.11
Remote	1.15	1.15	1.14	1.14
Very remote	1.27	1.33	1.29	1.29

(a) Calculated using the adjustments in Table 6 applied to emergency department triage 4 and 5 and selected non-admitted patient NWAU.

Source: Commission calculation using general regional cost gradient and IHACPA unpublished data on emergency department triage 4 and 5 and selected non-admitted patient NWAU.

Measuring activity for the balance of the component

60 Direct measures of activity are not available for other community health services or for public health services. Therefore, a proxy measure is used, based on a combination of emergency department activity and non-admitted patient activity.

61 The emergency department triage categories 4 and 5 represent lower urgency emergency department services that provide treatment for less severe injuries or minor illnesses. These are closer than other emergency department services to the types of primary health services provided in community health centres.

62 The types of non-admitted patient services similar to community health services and included in the proxy indicator are listed in Table 15.⁸

Table 15 Non-admitted services similar to community health services

Tier 2	Non-admitted patient service	Community and public health service
40.09	Physiotherapy	Allied health services
40.10	Sexual health	Sexual health services
40.13	Wound management	Community/home nursing services
40.23	Nutrition/dietetics	Allied health services
40.24	Orthotics	Allied health services
40.25	Podiatry	Allied health services
40.28	Midwifery and maternity	Family and child health services
40.29	Psychology	Community mental health services
40.30	Alcohol and other drugs	Alcohol and other drug services
40.31	Burns	Community/home nursing services
40.32	Continence	Continence services
40.35	Palliative care	Community/home nursing services
40.36	Geriatric evaluation and management	Community/home nursing services
40.37	Psychogeriatric	Community/home nursing services
40.38	Infectious diseases	Communicable disease control
40.51	Breast	Cancer screening (bundled with main service)
40.55	Paediatrics	Family and child health services
40.56	Falls prevention	Community/home nursing services
40.57	Cognition and memory	Community/home nursing services
40.58	Hospital avoidance programs	Chronic disease management
40.60	Pulmonary rehabilitation	Chronic disease management
40.63	COVID-19 response	Communicable disease control
40.64	Chronic pain management	Chronic disease management

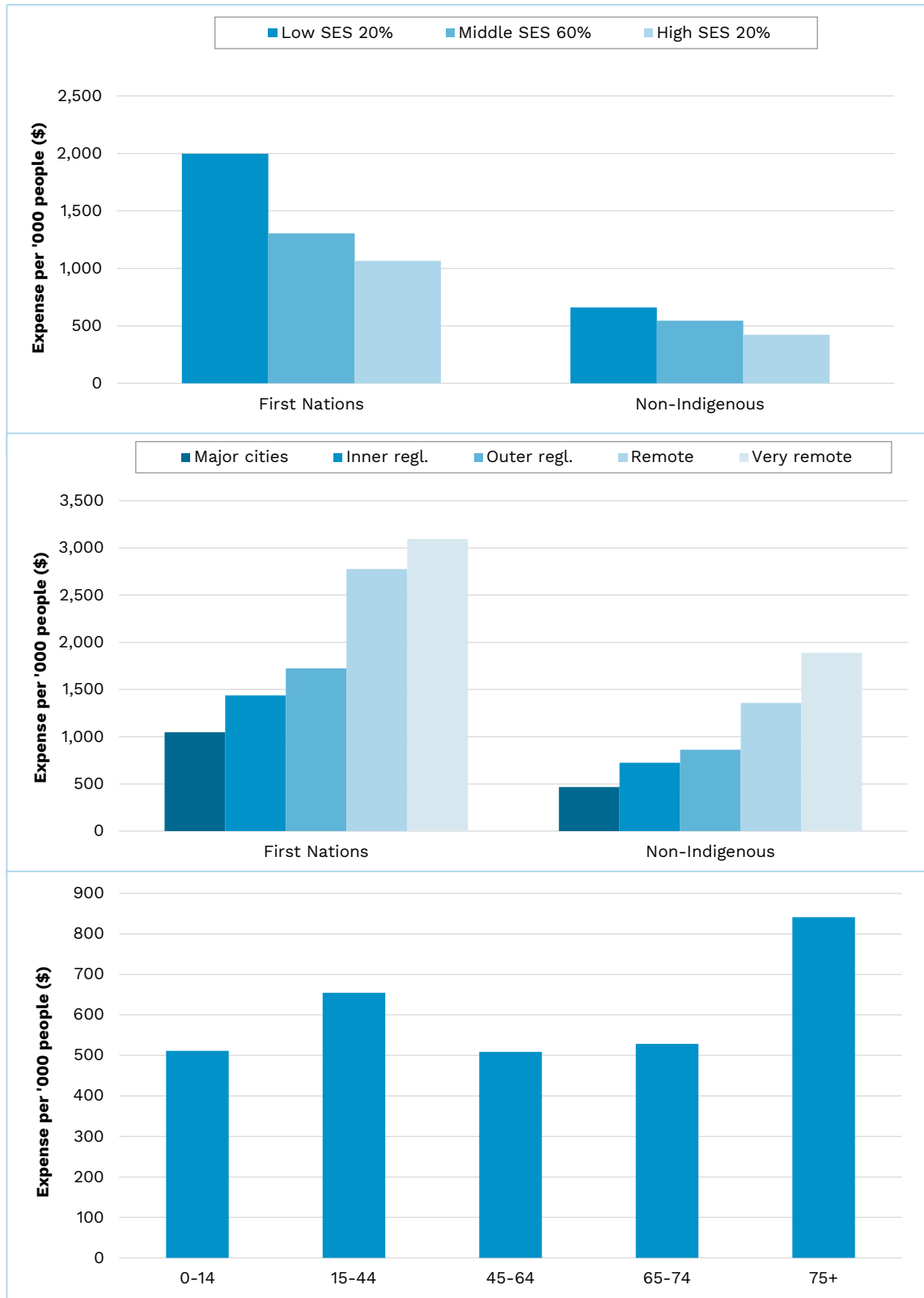
Source: Commission decision based on the IHACPA [Tier 2 Non-Admitted Services 2021-22](#), accessed 30 January 2025.

- 63 The NWAU for emergency department triage 4 and 5 and selected non-admitted patient services are summed to form the proxy indicator. Based on the share of activity in these services in 2022–23, the proxy is around 62% emergency department triage category 4 and 5 and 38% non-admitted patient services. This ratio will change each year as the proxy data are updated.
- 64 NWAU already incorporate adjustments for regional costs. Adjustments for service delivery scale (the same as those used in ambulatory community mental health) are applied to the national weighted activity units (Table 14).
- 65 The socio-demographic assessed expenses for the balance of community and public health services are calculated using the same approach as for the public hospital components. Since this calculation is based on proxy data, a low-level discount (12.5%) is applied.

⁸ Activity in COVID-19 clinics will not be included in the proxy for the assessment of GST relativities for 2025–26 and 2026–27 on the assumption that these clinics are funded by the National Partnership on COVID-19 Response. Expenses under the national partnership are being assessed separately.

66 Figure 6 shows how spending on community and public health vary across the socio-demographic groups.

Figure 6 Community and public health expenses per capita by socio-demographic variables, 2022–23



Source: Commission calculation using AIHW unpublished ambulatory community health service contacts with regional cost and SDS adjustments; IHACPA unpublished national weighted activity unit data and ABS unpublished GFS expenses and population data.

Non-state sector health services assessment

67 A non-state sector adjustment is applied to assessed expenses to recognise that the availability of a GP and other non-referred services are likely to affect the level of state spending on community and public health services.

68 The calculation of the non-state sector adjustment for community and public health services is the same as for hospital services (Box 2).

Levels of non-state sector substitutability

69 The level of substitutability varies for individual community and public health services. If the state and non-state sectors provide similar services, and accessibility and out-of-pocket costs are comparable, the potential substitutability would be high. On the other hand, if state and non-state sectors provide different services, with different accessibility and/or costs, the potential substitutability would be lower.

70 The following substitutability ranges were established in the 2015 Review:

- Very high level of substitutability (81–100%)
 - Community health services provided in a community setting — baby clinics, home nursing services, community health centre programs, family planning, etc.
- High level of substitutability (61–80%)
 - Organised immunisation — states are responsible for coordinating and implementing the National Immunisation Program Schedule with vaccines mainly administered by the non-state sector.
- Medium level of substitutability (41–60%)
 - Cancer screening — these include population-based screening programs for breast, cervical and bowel cancer.
 - Alcohol and other drug services — these include assessment, counselling, withdrawal management and support and information and education.
- Low level of substitutability (21–40%)
 - Mental health — mental health services provided in a community setting
 - Public dental services.
- Very low level of substitutability (0–20%)
 - Other public health services — these include health promotion, communicable disease control, prevention of hazardous and harmful drug use, and health research and administration.

71 The overall substitutability level is estimated by taking the midpoint of the substitutability ranges and multiplying it by the share of expenses for each sub-component.

72 This produces an estimate of 62% for the overall proportion of state expenses considered substitutable (Table 16). The substitutability level is set at 62% and this level will be maintained for the 2025 Review.

Table 16 Community and public health substitutability level

Group of services	Substitutability range	Share of expenses 2019-20	Expense weighted substitutability
	%	%	%
Community health services			
Public dental services	Low (21–40)	3	1
Alcohol and other drugs services	Medium (41–60)	3	2
Community mental health services	Low (21–40)	18	5
Other community health services	Very high (81–100)	55	50
Public health services			
Cancer screening	Medium (41–60)	3	1
Organised immunisation	High (61–80)	3	2
Selected health promotion	Very low (0–20)	4	0
Communicable disease control	Nil	6	0
Environmental health	Nil	1	0
Other public health services	Very low (0–20)	4	0
CH substitutability level			62

Note: The substitutability level was estimated using 2019–20 expenses as expenses for later years were heavily COVID affected.
Source: Commission calculation using AIHW unpublished expense data.

Indicator of non-state sector activity

73 The non-state sector indicator for community and public health is *Medicare bulk billed benefits paid from non-referred attendances* (i.e. GP services).

Cross-border adjustment

74 A cross-border adjustment is applied to community and public health services between the ACT and New South Wales. The net value of cross-border services provided by the ACT to New South Wales residents is estimated at 4% of the ACT's gross expenses on community and public health services, excluding expenses on community mental health.⁹ This amount is added to the ACT's assessed expenses and removed from New South Wales'.

Applying wage costs

75 Wages costs are a significant share of the total cost of providing health services. Differences in wage costs between states have a differential effect on the cost of providing community and public health services. The health assessment uses the Commission's general method for measuring the influence of wage costs. Details on

⁹ The Commission does not need to make a similar adjustment for cross-border hospital services. The National Health Funding Body monitors cross-border flows of hospital activity funded under the National Health Reform Agreement to ensure that states are compensated for the Commonwealth contribution when providing hospital services to residents of other states. Bilateral agreements between states facilitate reimbursement of the state contribution to cross border service use.

how this is calculated are in the wage costs chapter of the *Commission's Assessment Methodology*.

Non-hospital patient transport component

- 76 Patient transport expenses comprise:
- land ambulance
 - aero-medical ambulance, including the Royal Flying Doctor Service
 - Patient Assisted Travel/Transport Scheme (PATS).
- 77 Land ambulance expenses are included in the admitted patient component because the drivers that influence land ambulance expenses are similar to the drivers that influence hospital-based services.
- 78 Aero-medical services and subsidies for patient travel are provided disproportionately to people in remote and very remote regions, so these are assessed separately.
- 79 Government Finance Statistics data on patient transport do not distinguish between land ambulance, aero-medical ambulance and other patient transport expenses. Data provided by states for the 2025 Review showed that aero-medical and Patient Assisted Travel Scheme expenses represent 19% of state spending on patient transport. This proportion is used to apportion total patient transport expenses between the admitted patient component and the non-hospital patient transport component for the duration of the 2025 Review period.

Socio-demographic composition assessment

Drivers

Remoteness

- 80 Data provided by states for the 2025 Review shows that expenses on aero-medical and Patient Assisted Travel Scheme services are disproportionately incurred in assisting people in remote and very remote regions. The state data on expenses by remoteness area and ABS Census data on state population by remoteness area are used to produce a regional cost gradient. The gradient for the 2025 Review is shown in Table 17.

Table 17 Remoteness cost weights for the non-hospital patient transport component

	Cost weight
Non-remote	1
Remote	13
Very remote	37

Source: Commission calculation using state provided aero-medical and PATS expenses and ABS unpublished population data.

81 The regional cost gradient is applied to state populations in each remoteness area. The cost-weighted populations are used to apportion national expenses on non-hospital patient transport to produce state assessed expenses.

Applying wage costs

82 Wages costs are a significant share of the total cost of providing non-hospital patient transport services. Differences in wage costs between states have a differential effect on the cost of providing hospital services. The health assessment uses the Commission's general method for measuring the influence of wage costs. Details on how this is calculated are in the wage costs chapter of the *Commission's Assessment Methodology*.

COVID-19 component

83 State spending on COVID-19-related public hospital and public health services are assessed separately.

Expenses

84 The value of expenses in the COVID-19 component is determined by the amount of funding contributed by the Commonwealth and the states under the National Partnership on COVID-19 Response for public hospital and public health services.¹⁰

85 The reconciled value of the payments (rather than the estimates published in the Commonwealth of Australia's *Final Budget Outcome*) are used as these provide a more accurate reflection of state spending that align with activity data. This represents half of total expenses as states matched the Commonwealth contribution.

86 The National Partnership on COVID-19 Response ceased in 2022–23. The separate assessment of state spending under the national partnership will continue until the 2027 Update when the 2022–23 financial year drops out of the Commission's 3-year assessment period.

- The 2025 Review includes the 3 assessment years 2021–22 to 2023–24, and there will be a separate assessment of state spending on COVID-19 spending for 2021–22 and 2022–23.
- In the 2026 Update, there will be a separate assessment on COVID-19 spending only for 2022–23 because 2021–22 will drop out of the assessment period.
- For the 2027 Update, 2022–23, the last year for the National Partnership on COVID-19 Response, will drop out of the assessment period.

¹⁰ The Commonwealth payment to maintain private hospital viability is treated as no impact and is not included in component expenses because these expenses are not related to a usual state responsibility for which needs are assessed.

Drivers

- 87 The usual drivers in the health assessment do not adequately reflect state expense needs for COVID-19–related hospital and public health services during the period in which the National Partnership on COVID-19 Response was in place.
- 88 COVID-19 component expenses (both Commonwealth and state funded) are assessed on an actual per capita basis. State responses to the COVID-19 pandemic are considered to largely reflect state circumstances rather than state-specific policy choices. The National Partnership on COVID-19 Response ensured state spending was broadly policy neutral.

GST distribution in the 2025 Review

- 89 Table 18 shows the GST impact of the assessment in the 2025 Review.

Table 18 GST impact of the health assessment, 2025–26

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total effect
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Admitted patients	-170	-920	208	30	294	337	-204	425	1,294
Emergency departments	-112	-200	99	48	22	67	-28	103	340
Non-admitted patients	-219	-183	73	158	62	53	-15	71	417
Community and public health	-406	-520	218	234	89	158	18	210	927
Non-hospital patient transport	-56	-56	12	52	5	-1	-3	46	116
COVID health	308	412	-574	-31	-134	14	-14	20	753
Total (\$m)	-655	-1,467	35	491	338	628	-246	876	2,369
Total (\$pc)	-76	-205	6	161	178	1,087	-510	3,406	85

Note: Magnitude and direction of GST impact can change from year to year.