

5 State and Territory health services expenditure for Aboriginal and Torres Strait Islander people

Background information

Community and public health expenditure

There are a number of spending areas which cannot easily be categorised, so for the purposes of this report the category of community health services has been amalgamated with public health. Alcohol and drug services, for example, often include a component of treatment which is classified as 'community health' as well as activities with a preventive or harm minimisation focus, which are classified as 'public health'. It is particularly difficult to distinguish between community and public health for Aboriginal and Torres Strait Islander health programs run on a holistic basis. Under the auspices of the National Public Health Expenditure Project, work is underway to more sharply define the community and public health boundary. At this stage, however, it is appropriate to combine the community and public health categories, particularly if jurisdictional comparisons are to be made. The Northern Territory, for example, categorises a great deal of expenditure as public health for both Aboriginal and/or Torres Strait Islander people and non-Indigenous people. In other States a portion of this expenditure would be included in 'community health'.

Public health expenditure to Aboriginal and Torres Strait Islander people was often allocated according to population shares although, where possible, for activities such as breast and cervical cancer screening, it was based on utilisation data.

Home and Community Care expenditure

Expenditure on HACC was collected from the States but has not been included in this report as it is now classified as welfare services.

Health administration

Unlike in the first report, expenditure on health research is reported separately from expenditure on administration. Expenditure on administration for Aboriginal and Torres Strait Islander people was calculated according to the steps below:

1. The Aboriginal and Torres Strait Islander proportion of each jurisdiction's population was applied to that State or Territory's total administration expenditure.

2. The proportion of total expenditure attributable to Aboriginal and Torres Strait Islander people across all areas of spending (hospitals, nursing homes, etc.) was applied to total expenditure on administration.
3. These two numbers were averaged.

Note: For Victoria, administrative expenditure was included with the functional categories. Therefore, for Victoria, it was effectively calculation 2 which was applied in estimating the portion of administrative expenditure applying for Koori people.

Hospital expenditure

The hospital expenditure data contained in this chapter are those generated by the Institute's hospital morbidity cost model (see Chapter 4 and Appendix 5), with a 5% loading for extra costs incurred for Aboriginal and Torres Strait Islander patients. These numbers differ somewhat from the numbers provided by the States and Territories.

Population

The 1998–99 Aboriginal and Torres Strait Islander populations are based on an average of the ABS low series experimental projections as at 30 June 1998 and 30 June 1999 (ABS 1998). The total State and Territory populations are AIHW estimates of mean resident populations for 1998–99, derived from quarterly data sourced from ABS Catalogue 3101.0 (ABS 2000a). See Appendix 2 for details of populations used.

Methodology for estimating Aboriginal and Torres Strait Islander expenditure

A detailed explanation of the methodology for estimating Aboriginal and Torres Strait Islander expenditure for each State and Territory, together with a discussion of data quality issues, can be found in Appendix 6.

New South Wales

Demography

The 1998–99 Aboriginal and Torres Strait Islander population in New South Wales was estimated to be 115,532 which accounted for 1.8% of the State’s total population. This represented over a quarter (28.4%) of the total Australian Aboriginal and Torres Strait Islander population.

Key results

The New South Wales Government recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 is estimated at \$211.3 million. This accounts for 3.2% of the State’s total health services recurrent expenditure of \$6,531.8 million. Expenditure for Aboriginal and Torres Strait Islander people was estimated to be \$1,829 per head—1.81 times greater than the State’s non-Indigenous per person expenditure (\$1,011).

Comments on methods

Data for New South Wales were compiled at the area health service level. Three sets of estimates of recurrent expenditure for Aboriginal and Torres Strait Islander people were derived by New South Wales based on alternate assumptions of under-identification in hospitals, aged care homes and community services. The ‘high’ assumptions give an estimate 9% higher of \$230 million and the ‘low’ assumptions gave an estimate 7% lower of \$196 million. Most of the variation derives from the estimates of admitted patient expenditure where there is considerable uncertainty as to under-identification. The ‘medium’ estimate in this report was 30% under-identification with a variation from 26% to 34%.

Expenditure estimates in the community and public health area are based on limited utilisation data, so should be treated with care.

Table 5.1: New South Wales Government health expenditure, by program, for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)		Indigenous share %	Expenditure per person (\$)		Ratio
	Indigenous	Total		Indigenous	Non-Indigenous	
<i>Acute-care institutions</i>	138.3	4,900.9	2.8	1,197	762	1.57
Admitted patient services	109.1	3,982.6	2.7	945	620	1.52
Non-admitted patient services	29.2	918.2	3.2	253	142	1.78
Mental health institutions	8.6	208.1	4.1	74	32	2.33
High-care residential aged care	1.4	75.4	1.9	12	12	1.05
Patient transport	8.1	256.7	3.2	70	40	1.77
Community and public health	52.2	973.5	5.4	452	147	3.07
Health research	1.3	66.6	1.9	11	10	1.05
Administration	1.3	50.5	2.5	11	8	1.41
Total	211.3	6,531.8	3.2	1,829	1,011	1.81

Victoria

Demography

The 1998–99 Aboriginal and Torres Strait Islander population in Victoria was estimated to be 23,602, which represented 5.8% of the total Aboriginal and Torres Strait Islander population and 0.5% of the State’s total population. This estimate is based on Census estimates with adjustments by the ABS for under-enumeration and population growth since the Census. Koori community organisations consider that the Census underestimates the true number of Aboriginal and Torres Strait Islander people in Victoria by at least 50%.

Key results

The Victorian Government recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 was estimated to be \$34.1 million. This accounted for 0.88% of the State’s total health services recurrent expenditure of \$3,892.7 million. Expenditure for Aboriginal and Torres Strait Islander people was estimated to be \$1,444 per head—1.7 times greater than the State’s non-Indigenous per person expenditure (\$828).

Comments on methods

Within the hospital sector there have been significant data developments more recently. The estimates of admitted patient services for Aboriginal and Torres Strait Islander people were informed by surveys undertaken by the Koori Health Unit which assessed the accuracy of identification in hospital records (Appendix 5). Expenditure through acute-care institutions accounts for 70% of total expenditure on Aboriginal and Torres Strait Islander people.

Expenditure estimates in the community and public health area are not based on utilisation data so should be treated with care.

Table 5.2: Victorian Government health expenditure, by program, for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)		Indigenous share %	Expenditure per person (\$)		Ratio
	Indigenous	Total		Indigenous	Non-Indigenous	
<i>Acute-care institutions^(a)</i>	23.7	3,072.8	0.8	1,003	654	1.53
Admitted patient services	18.7	2,429.5	0.8	793	517	1.53
Non-admitted patient services	5.0	643.3	0.8	210	137	1.53
High-care residential aged care	0.1	40.3	0.2	3	9	0.32
Patient transport	1.0	96.6	1.0	40	21	1.97
Community and public health	9.2	654.6	1.4	391	139	2.82
Health research	0.1	28.5	0.5	6	6	1.00
Total	34.1	3,892.7	0.9	1,444	828	1.74

(a) Victorian institutional mental health care expenditure is included in admitted patient services of acute-care institutions.

Note: Administration is allocated across the functional categories and is not reported separately.

Queensland

Demography

The 1998–99 Aboriginal and Torres Strait Islander population in Queensland was estimated to be 111,718, which accounted for 3.2% of the State’s total population and represented 27.5% of the total Australian Aboriginal and Torres Strait Islander population.

Key results

The Queensland Government recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 was estimated to be \$225 million (Table 5.3). This accounted for 7.2% of the State’s total health services recurrent expenditure of \$3,124 million. Expenditure for Aboriginal and Torres Strait Islander people was estimated to be \$2,014 per head—2.3 times the State’s non-Indigenous per person expenditure (\$861).

Comments on methods

Queensland Government expenditure reported in the 1995–96 report was greatly influenced by the under-identification factor of 15% applied for admitted patient expenditure. Estimates of identification for this report suggest that the factor applied in the 1995–96 report was too low, and so a factor of 20% has been used in this report. This should be kept in mind if the two reports are compared.

Table 5.3: Queensland Government health expenditure, by program, for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)		Indigenous share %	Expenditure per person (\$)		Ratio
	Indigenous	Total		Indigenous	Non-Indigenous	
<i>Acute-care institutions</i>	157.6	2,194.5	7.2	1,410	605	2.33
Admitted patient services	119.4	1,766.1	6.8	1,068	489	2.19
Non-admitted patient services	38.2	428.4	8.9	342	116	2.95
Mental health institutions	8.2	95.2	8.7	74	26	2.86
High-care residential aged care	1.3	101.1	1.3	12	30	0.40
Patient transport	8.4	124.7	6.7	75	35	2.18
Community and public health	47.3	561.1	8.4	424	153	2.78
Health research	0.5	14.8	3.2	4	4	1.00
Administration	1.7	32.6	5.2	15	9	1.64
Total	225.0	3,123.9	7.2	2,014	861	2.34

Western Australia

Demography

The 1998–99 Aboriginal and Torres Strait Islander population in Western Australia was estimated at 58,852, which accounted for 3.2% of the State’s total population and represented 14.5% of the total Australian Aboriginal and Torres Strait Islander population.

Key results

The Western Australian Government recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 is estimated at \$163 million (Table 5.4). This accounted for 9.0% of the State’s total health services recurrent expenditure of \$1,823 million. Expenditure for Aboriginal and Torres Strait Islander people was \$2,772 per head—3.0 times the State’s non-Indigenous per person expenditure (\$929).

Comments on methods

Western Australia used a different method from the national morbidity costing method to calculate admitted patient expenditure. This gave an estimate of \$89.2 million for admitted patient expenditure for Aboriginal and Torres Strait Islander patients compared with \$92.4 million as calculated in the AIHW hospital morbidity costing method.

Table 5.4: Western Australian Government health expenditure, by program, for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)		Indigenous share %	Expenditure per person (\$)		Ratio
	Indigenous	Total		Indigenous	Non-Indigenous	
<i>Acute-care institutions</i>	113.5	1,343.9	8.4	1,929	689	2.80
Admitted patient services	89.2	1,048.2	8.5	1,516	537	2.82
Non-admitted patient services	24.3	295.7	8.2	414	152	2.72
Mental health institutions	4.7	111.9	4.2	79	60	1.32
High-care residential aged care	4.9	78.5	6.3	84	41	2.03
Patient transport	3.6	24.1	15.1	62	11	5.40
Community and public health	33.7	215.4	15.7	573	102	5.63
Health research	0.2	7.9	2.7	4	4	0.84
Administration	2.4	41.0	6.0	42	22	1.93
Total	163.2	1,822.7	9.0	2,772	929	2.98

South Australia

Demography

The 1998–99 Aboriginal and Torres Strait Islander population in South Australia was estimated to be 23,179. This represented 1.6% of South Australia’s total population and 5.7% of the total Australian Aboriginal and Torres Strait Islander population.

Key results

The South Australian Government recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 was estimated to be \$54.5 million. This accounts for 3.8% of the State’s total health services recurrent expenditure of \$1,425 million (Table 5.5). Expenditure by the State in respect of Aboriginal and Torres Strait Islander people was estimated to be \$2,350 per head—2.5 times the State’s non-Indigenous per person expenditure (\$935).

Comments on methods

South Australian estimates of Indigenous-specific community and public health programs are good, but there is no data available on Aboriginal and Torres Strait Islander use of mainstream community and public health programs.

The estimate of admitted patient expenditure for Aboriginal and Torres Strait Islander people is much increased compared with the 1995–96 estimate. This is mostly due to the very high DRG cost weight (0.97) that is shown in the South Australian morbidity data for Aboriginal and Torres Strait Islander separations. This is caused by a number of high cost Northern Territory patients (680 in 1998–99) being treated in South Australian public hospitals. These patients have an average cost weight of 2.7. South Australian Aboriginal and Torres Strait Islander patients treated in South Australia have a cost weight of 0.83.

Table 5.5: South Australian Government health expenditure, by program, for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)		Indigenous share %	Expenditure per person (\$)		Ratio
	Indigenous	Total		Indigenous	Non-Indigenous	
<i>Acute-care institutions</i>	40.0	1,053.1	3.8	1,725	691	2.50
Admitted patient services	33.2	842.5	3.9	1,434	552	2.60
Non-admitted patient services	6.7	210.6	3.2	291	139	2.09
Mental health institutions	4.5	75.5	5.9	193	48	3.98
High-care residential aged care	0.1	36.3	0.4	6	25	0.23
Patient transport	1.3	32.3	3.9	55	21	2.60
Community and public health	5.7	91.5	6.2	246	59	4.20
Health research	1.1	69.7	1.6	47	47	1.00
Administration	1.8	66.7	2.7	79	44	1.78
Total	54.5	1,425.2	3.8	2,350	935	2.51

Tasmania

Demography

The 1998–99 Aboriginal and Torres Strait Islander population in Tasmania was estimated to be 15,974, which accounted for 3.4% of the State’s population and represented 3.9% of the total Australian Aboriginal and Torres Strait Islander population.

Key results

Tasmanian Government recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 was estimated at \$26 million (Table 5.6). This accounted for 6.3% of the State’s total health services recurrent expenditure (excluding HACC) of \$418 million. Recurrent expenditure in respect of health services provided to Aboriginal and Torres Strait Islander people was estimated to be \$1,644 per Aboriginal and Torres Strait Islander person—1.9 times the average expenditure per person for the State’s non-Indigenous population (\$861).

Comments on methods

Information regarding the methodology for producing these estimates is provided in Appendix 6. The appendix provides details of the serious data deficiencies that cause problems estimating expenditures for Aboriginal and Torres Strait Islander people in Tasmania. Accordingly this data should be used with great care.

Table 5.6: Tasmanian Government health expenditure, by program, for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)			Expenditure per person (\$)		
	Indigenous	Total	Indigenous share %	Indigenous	Non-Indigenous	Ratio
<i>Acute-care institutions</i>	18.0	254.0	7.1	1,129	518	2.18
Admitted patient services	13.3	188.0	7.1	836	383	2.18
Non-admitted patient services	4.7	66.0	7.1	294	135	2.18
High-care residential aged care	0	0	0	0	0	
Patient transport	1.1	15.7	7.1	70	32	2.18
Community and public health	6.7	139.8	4.8	417	292	1.43
Health research	0.3	6.0	5.3	20	12	1.58
Administration	0.1	2.8	4.8	8	6	1.44
Total	26.3	418.4	6.3	1,644	861	1.91

Australian Capital Territory

Demography

The 1998–99 Aboriginal and Torres Strait Islander population in the Australian Capital Territory was estimated to be 3,319, which accounted for 1.1% of the Territory’s total population and represented 0.8% of the total Aboriginal and Torres Strait Islander population.

Key results

Australian Capital Territory Government recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 was estimated at \$8 million (Table 5.7). This accounted for 2.7% of the Australian Capital Territory’s total health services recurrent expenditure of \$298 million. Expenditure for Aboriginal and Torres Strait Islander people was estimated to be \$2,431 per head—2.6 times the Territory’s non-Indigenous per person expenditure (\$950).

Comments on methods

The estimates in 1998–99 are much improved compared with the estimates of Aboriginal and Torres Strait Islander expenditure made in 1995–96. Therefore there is little point in comparing the estimates in the two years. The large change in the estimates is not real growth but due to improved methods.

Table 5.7: Australian Capital Territory Government health expenditure, by program, for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)		Indigenous share %	Expenditure per person (\$)		Ratio
	Indigenous	Total		Indigenous	Other	
<i>Acute-care institutions</i>	6.9	239.7	2.9	2,090	763	2.74
Admitted patient services	4.0	149.3	2.7	1,206	476	2.53
Non-admitted patient services	2.9	90.3	3.2	885	286	3.09
Patient transport	0.1	7.5	1.1	25	24	1.01
Community and public health	0.8	38.8	2.1	247	124	1.99
Administration	0.2	12.2	1.9	69	39	1.78
Total	8.1	298.1	2.7	2,431	950	2.56

Northern Territory

Demography

The 1998–99 Aboriginal and Torres Strait Islander population in the Northern Territory was estimated to be 54,137, which accounted for 28.3% of the Territory's total population and represented 13.3% of the total Aboriginal and Torres Strait Islander population.

Key results

Northern Territory Government recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 was estimated at \$174 million (Table 5.8). This accounted for 52.6% of the Territory's total health services recurrent expenditure of \$330 million. Expenditure for Aboriginal and Torres Strait Islander people was estimated to be \$3,208 per head—2.8 times the Territory's non-Indigenous per person expenditure (\$1,139).

Comments on methods

Any comparison of Northern Territory Government expenditures in this report with those reported in the 1995–96 report should be made with care. A quite different method has been used for estimating admitted patient costs for Aboriginal and Torres Strait Islander people. The method used in 1995–96 gave a 50% cost loading for Aboriginal and Torres Strait Islander separations. The current method adds a loading for Aboriginal and Torres Strait Islander separations but not as much as 50%. The change in method means that the share of admitted patient expenditure for Aboriginal and Torres Strait Islander people is much reduced, and the growth in total Aboriginal and Torres Strait Islander health expenditure is very low. However, many more services were in fact delivered to Aboriginal people in the three years; for example, hospital separations increased by 29%.

Table 5.8: Northern Territory Government health expenditure, by program, for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)		Indigenous share %	Expenditure per person (\$)		Ratio
	Indigenous	Total		Indigenous	Non-Indigenous	
<i>Acute-care institutions</i>	79.8	177.9	44.9	1,475	714	2.06
Admitted patient services	66.0	143.0	46.1	1,219	561	2.17
Non-admitted patient services	13.8	34.8	39.7	256	153	1.67
High-care residential aged care	0.0	0.1	41.0	1	0	1.76
Patient transport	11.7	18.6	63.0	216	50	4.32
Community and public health	72.1	111.9	64.4	1,332	290	4.59
Health research	2.3	2.7	85.0	42	3	14.36
Administration	7.7	18.8	40.8	142	81	1.75
Total	173.7	329.9	52.6	3,208	1,139	2.82

Australia

Key results

For all States and Territories combined, the recurrent expenditure on health services for Aboriginal and Torres Strait Islander people for 1998–99 was estimated at \$896 million (Table 5.9). This accounts for 5% of health services recurrent expenditure through State and Territory programs of \$17,8431 million. Expenditure for Aboriginal and Torres Strait Islander people was estimated to be \$2,205 per head—2.4 times the non-Indigenous per person expenditure (\$920).

Public hospital expenditure accounted for most of the expenditure through State programs—65% for Aboriginal and Torres Strait Islander people and 74% for the non-Indigenous population.

Admitted patient services for Aboriginal and Torres Strait Islander people are 4.8% of separations and 4.4% of expenditure. The expenditure per person ratio is 2.04, which is significantly greater than 1, and reflects the much poorer health status of Aboriginal and Torres Strait Islander people.

It is estimated \$8 million was spent for and by Aboriginal and Torres Strait Islander people who are receiving high-intensity care in State Government residential aged care homes. This is 2.4% of the expenditure on high-intensity care in these facilities. In contrast 1.1% of expenditure in non-State Government residential aged care homes was for Aboriginal and Torres Strait Islander people (Table 3.8). The difference reflects a higher proportion of Aboriginal and Torres Strait Islander residents in State Government facilities.

Community and public health expenditure for Aboriginal and Torres Strait Islander people through State programs is \$228 million. This is 8.2% of total expenditure in this area and the Aboriginal Torres Strait Islander people/other people ratio is 4.0. This high ratio to some extent compensates for the lower delivery of services to Aboriginal and Torres Strait Islander people through private medical practitioners, private dentists and other private health professionals.

The Aboriginal Torres Strait Islander people/other people ratio of 3.32 for administration expenditure is a statistical quirk due to the high administrative costs in the Northern Territory. Of the \$15.3 million estimated administration expenditure for Aboriginal and Torres Strait Islander people, \$7.7 million was in the Northern Territory. If Northern Territory is excluded, the ratio falls from 3.32 to 2.02.

Table 5.9: Total State and Territory government health expenditure by program for Indigenous and non-Indigenous people, 1998–99

Area of expenditure	Expenditure (\$m)		Indigenous share %	Expenditure per person (\$)		Ratio
	Indigenous	Total		Indigenous	Non-Indigenous	
<i>Acute-care institutions</i>	577.9	13,236.7	4.4	1,422	687	2.07
Admitted patient services	453.0	10,549.3	4.3	1,115	548	2.04
Non-admitted patient services	124.9	2,687.4	4.6	307	139	2.21
Mental health institutions	26.0	490.7	5.3	64	25	2.53
High-care residential aged care	7.9	331.6	2.4	19	18	1.11
Patient transport	35.3	576.3	6.1	87	29	2.96
Community and public health	227.9	2,786.7	8.2	561	139	4.04
Health research	5.7	196.1	2.9	14	10	1.37
Administration	15.3	224.5	6.8	38	11	3.32
Total	896.0	17,842.7	5.0	2,205	920	2.40

Summary

The bulk of health expenditure for Aboriginal and Torres Strait Islander people (72%) is through the State and Territory health authorities. And the majority of State and Territory expenditure is through hospitals, especially through admitted patient services.

There is still a high level of uncertainty as to the correctness of Aboriginal and Torres Strait Islander identification in hospitals in certain States. New South Wales and Queensland figures contribute significantly to uncertainty as to the actual level of admitted patient expenditure, because 56% of the Aboriginal and Torres Strait Islander population lives in these two States.

While the best estimate of health expenditure through State and Territory programs for Aboriginal and Torres Strait Islander people is \$8967 million, statistical modelling to allow for different under-identification rates gives a 95% confidence that the expenditure is between \$871 and \$921 million.

Comparison of 1998–99 with 1995–96

Comparisons between 1995–96 and 1998–99 are difficult because of uncertainties in both years with regard to the estimates, and because there have been changes in the methodologies used between 1995–96 and 1998–99.

Expenditure through State Government programs increased \$253 million from \$645 million in 1995–96 to \$896 million in 1998–99.

Of the 22% per person expenditure increase from 1995–96 to 1998–99, the documented real change in expenditures through State and Territory programs is

12%. The remaining difference is explained by different methods, statistical error and possible other real growth (Table 2.2). By comparison, inflation-adjusted expenditure through State Government programs per non-Indigenous person increased about 10% in this period.

There were methodological changes between the first and second report, such as the extra 5% loading given for admitted patients for the higher cost intensity per day in treating Aboriginal and Torres Strait Islander patients, which added \$18 million.

Also in a number of instances the States and Territories were able to give more comprehensive estimates of the costs of providing health services to Aboriginal and Torres Strait Islander people; for example, the Australian Capital Territory 1995–96 estimates were clearly an underestimate, but this has been corrected in the 1998–99 estimates.

Most (51%) of expenditure through State programs is for admitted patient services. There is clear evidence that hospital admission rates for Aboriginal and Torres Strait Islander people increased substantially more than the rate for non-Indigenous people in the 3 years to 1998–99, even allowing for the uncertainties with regard to identification of Aboriginal and Torres Strait Islander people in hospital records. Reported hospital separation rates per 1,000 population of Aboriginal and Torres Strait Islander people increased 16%, as compared with an increase in separations per 1,000 population for the general population of 4% (Table 4.2). Most of the higher increase was in same day admissions, which results in somewhat lower increases in costs, but the overall impact was still substantial.

Thus the States substantially increased the volume of, and expenditure on, admitted patient services for Aboriginal and Torres Strait Islander people in the period 1995–96 to 1998–99. They may have increased the volume of community and public health and other health services; however, the numbers for these other State health services are less certain, so the extent of the increase in this area is unknown.