7 Analysis of regional health expenditure

Introduction

This chapter examines the differences in health utilisation and costs for Aboriginal and Torres Strait Islander peoples living in more remote areas as compared with those living in more accessible areas. The analysis is restricted to the 51.6% of health services expenditure data that can be apportioned according to the ASGC Remoteness Areas for the population (Box 7.1).

The analysis required details of the patient's postcode or statistical local area, or information on the location of the service to allocate expenditure to ARIA+ regional categories (see AIHW 2004d). For some quite substantial areas of expenditure, such as community health expenditure by states and territories, that information was generally not available.

Box 7.1: Composition of regional health expenditure estimates

The expenditure categories within this chapter are not entirely comparable with estimates in other chapters of the report. It is important to note the following points when examining results in this chapter:

- *OATSIH expenditure is limited to expenditure on ACCHSs, including grants to state and territory governments where these are directed to service provision in Aboriginal and Torres Strait Islander communities. It excludes expenditure directed to areas such as consultancies, data, national projects, program development and capital costs as these are not available by geographic area. Consequently, the estimate is different from that presented in Chapter 4 for expenditure through OATSIH programs.*
- *The estimates of Australian Government benefits under the Medicare Benefits Schedule cover only medical services and therefore exclude Medicare benefits for optometry and dental services. The PBS benefits exclude all Section 100 other than Section 100 expenditure associated with Aboriginal Health Services. As in the Australian Government chapter, Medicare and PBS estimates are calculated using BEACH (Bettering the Evaluation and Care of Health) survey data from 2001 and 2002.*
- *The analysis of expenditure on hospital separations examines expenditures for admitted patients from public acute-care hospitals and private hospitals – both acute and non-acute public and private separations are incorporated. Private medical costs are not included in these expenditure estimates.*
- *The analysis of services for older people relates to Australian Government expenditures only on programs for older people, specifically those with higher levels of dependency. The resident contribution in residential aged care facilities is not included.*

ASGC Remoteness Areas

Comparisons in this chapter are made across the ASGC remoteness areas. Five main areas of the classification were used in this report: major cities, inner regional, outer regional, remote and very remote. Examples of statistical local areas (SLAs) within each category are:

- Major cities—South Perth and Beenleigh
- Inner regional—Ballarat, Hobart, Mount Gambier and Orange

- Outer regional—Atherton, Burnie and Darwin city SLAs
- Remote—Port Lincoln and Narembeen
- Very remote—Bourke, Halls Creek and Nhulunbuy.

The majority of the information presented in this chapter is based on the patient's usual place of residence, reported via postcode information collected with the relevant administrative or survey data. However, for some services, most notably the information on ACCHSs, the patient's usual residence is not collected, and the location of the service has been used to determine remoteness areas of expenditure. In the case of residential aged care, the location of the service, which in turn is the patient's usual residence, has also been used in this analysis.

The Aboriginal and Torres Strait Islander population are well dispersed over the ASGC remoteness areas (Table 7.1; Figure 7.1). Just under one-third of Indigenous Australians live in major cities, while over a quarter reside in remote and very remote areas of Australia.

Table 7.1: Population distribution, by ASGC remoteness area and Indigenous status, Australia, 2001

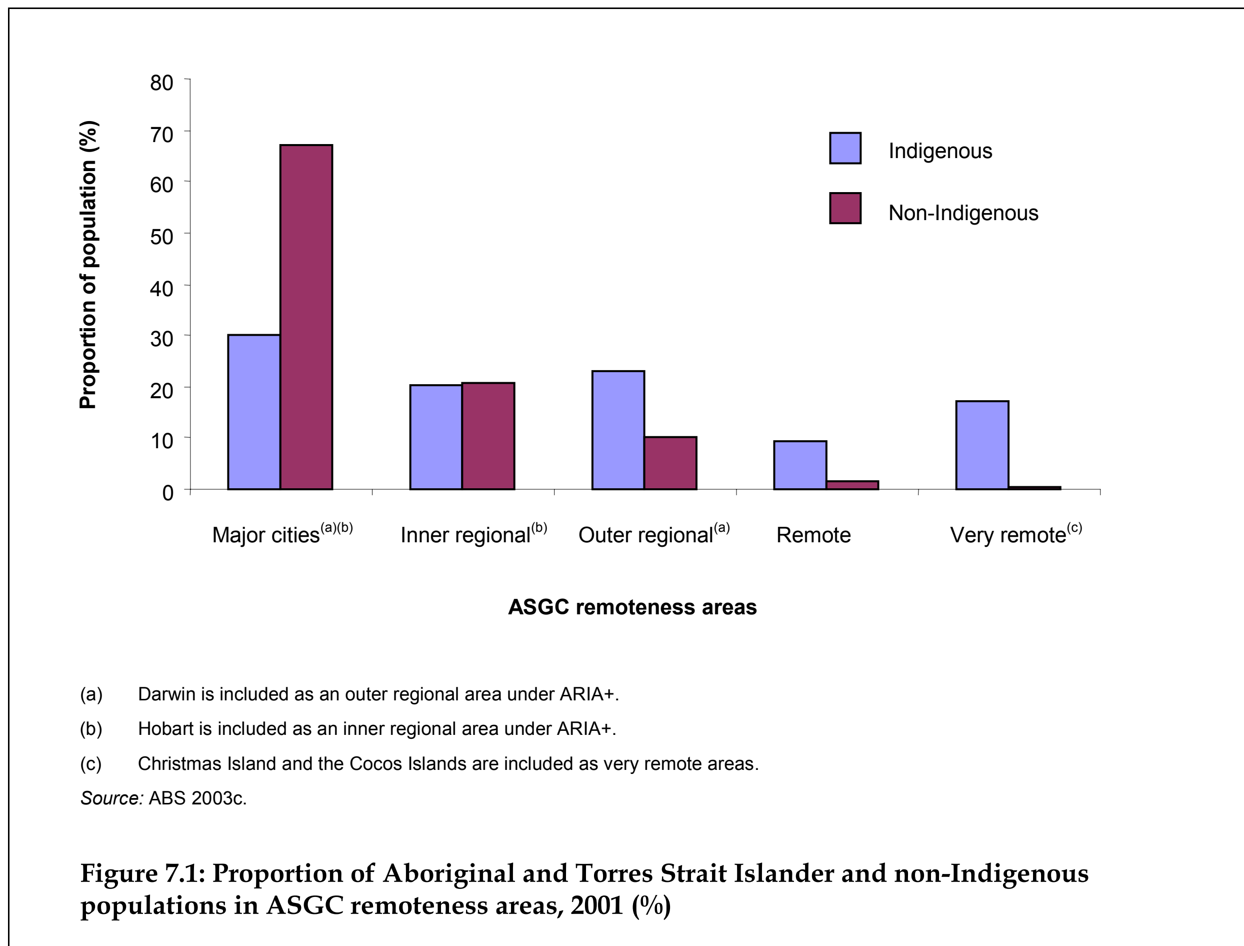
ASGC remoteness area	Indigenous Australian population		Non-Indigenous population	
	Number	Per cent	Number	Per cent
Major Cities[(a)(b)]	138,494	30.2	12,732,492	67.2
Inner Regional[(b)]	92,988	20.3	3,932,907	20.7
Outer Regional[(a)]	105,875	23.1	1,907,688	10.1
Remote	40,161	8.8	284,160	1.5
Very Remote	81,002	17.7	97,473	0.5
Total	**458,520**	**100.0**	**18,954,720**	**100.0**

(a) Darwin is included as an outer regional area under ARIA+.

(b) Hobart is included as an inner regional area under ARIA+.

(c) Christmas Island and the Cocos Islands are included as very remote areas.

Source: ABS 2003c.



(a) Darwin is included as an outer regional area under ARIA+.

(b) Hobart is included as an inner regional area under ARIA+.

(c) Christmas Island and the Cocos Islands are included as very remote areas.

Source: ABS 2003c.

Figure 7.1: Proportion of Aboriginal and Torres Strait Islander and non-Indigenous populations in ASGC remoteness areas, 2001 (%)

Limitations

Some of the limitations associated with this analysis are outlined in Chapter 1. These include variations in data quality within regions and in service delivery costs both within and across regions. They also include issues around the calculation of expenditure per person estimates. A further limitation to the regional analysis is that it covers only around half of the total expenditures on health services.

Readers are urged to read these limitations and exercise caution in the interpretation of information in this chapter.

Summary of findings

For the services analysed, average expenditures on Indigenous Australians were lower than for non-Indigenous people in the major cities and inner regions, but substantially higher in the outer regional, remote and very remote areas, compared with expenditure per person on non-Indigenous people (Table 7.2). The findings support those in the state and territory chapter—that the higher the proportion of a jurisdiction's Indigenous population who live in rural and remote areas, the higher the proportion of its total expenditures go to Indigenous health.

Expenditure on admitted patient services in public acute-care hospitals for Aboriginal and Torres Strait Islander peoples was greatest in the more remote areas, as were expenditures by the OATSIH through the ACCHSs.

Medicare expenditures for Aboriginal and Torres Strait Islander peoples were greatest in major cities, and inner and outer regional areas, presumably because of better access to private GPs in these areas. PBS expenditures, on the other hand, were greater in more remote areas where the Section 100 arrangements apply, although overall the benefits per person were still below the non-Indigenous average.

In the case of services for older people, average expenditures per person on Indigenous Australians were higher than for non-Indigenous people in remote and very remote areas.

Table 7.2: Estimated average health expenditures per person on selected health services, Aboriginal and Torres Strait Islander peoples and non-Indigenous people, by ASGC remoteness area, 2001–02 ($)

Area of expenditure		Major cities[(a)(b)]	Inner regional[(b)]	Outer regional[(a)]	Remote & very remote	Total
Admitted patient services						
Public hospitals	Indigenous	973.18	844.17	1,557.72	2,416.18	1,463.30
	Non-Indigenous	645.01	713.07	808.74	813.29	679.00
Private hospitals	Indigenous	47.34	29.54	15.53	4.57	25.08
	Non-Indigenous	277.18	280.44	194.35	142.11	266.80
OATSIH[(c)]	Indigenous	173.26	211.84	288.78	546.80	306.47
Medicare (medical only)[(d)]	Indigenous	170.96	173.34	175.16	111.41	156.68
	Non-Indigenous	427.04	363.26	322.22	255.22	399.80
PBS[(e)]	Indigenous	57.52	60.65	62.08	110.58	73.23
	Non-Indigenous	217.71	236.75	216.59	155.14	220.29
Services for older people (Australian Government expenditure only)	Indigenous	53.33	23.10	78.58	114.49	69.20
	Non-Indigenous	176.72	215.17	138.17	46.65	178.20
Total for selected health services	**Indigenous**	**1,475.60**	**1,342.64**	**2,177.85**	**3,304.03**	**2,093.95**
	Non-Indigenous	**1,743.66**	**1,808.69**	**1,680.08**	**1,412.42**	**1,744.09**
Ratio—Indigenous/non-Indigenous		**0.85**	**0.74**	**1.30**	**2.34**	**1.20**

(a) Darwin is included as an outer regional area under ARIA+.

(b) Hobart is included as an inner regional area under ARIA+.

(c) OATSIH expenditure on ACCHSs.

(d) Excludes Medicare benefits for optometry and dental services.

(e) Excludes benefits paid through special supply arrangements of the PBS (other than payments to remote area AHS under Section 100 of the *National Health Act 1953*).

Source: Analysis of AIHW Health expenditure database.

Of those services examined, admitted patient services in acute-care hospitals accounted for over two-thirds of the total expenditure per person. But Indigenous Australians in the remote and very remote regions had rates of separation from hospitals more than twice that of Aboriginal and Torres Strait Islanders in major cities (Table 7.3). Age structure of the populations did not account for any significant part of the difference. In contrast, separation rates and average expenditures per person were similar for non-Indigenous people across the ASGC categories.

Table 7.3: Separation rates per 1,000 population, public and private sectors, by ASGC remoteness area and Indigenous status, 2001–02

ASGC remoteness area	Indigenous			Non-Indigenous			Total		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Major cities[(a)(b)]	293	34	327	195	140	336	197	139	336
Inner regional[(b)]	295	16	311	220	127	347	222	125	346
Outer regional[(a)]	619	7	626	244	89	334	264	85	349
Remote	822	3	825	244	67	311	315	60	375
Very remote	625	1	626	260	62	322	426	34	460
Total	**473**	**16**	**489**	**207**	**131**	**337**	**213**	**128**	**341**

(a) Darwin is included as an outer regional area under ARIA+.

(b) Hobart is included as an inner regional area under ARIA+.

Note: Data have been adjusted for under-identification of Aboriginal and Torres Strait Islander peoples.

Source: AIHW National Hospital Morbidity Database.

The average cost of Indigenous separations from public hospitals was highest in the very remote areas (Table 7.4). Also, the average cost of separations from public hospitals in major cities was substantially higher than the national average for Aboriginal and Torres Strait Islander peoples. This is likely to be a reflection of the nature of services delivered by the larger metropolitan hospitals.

Table 7.4: Average cost per separation, by hospital sector, ASGC remoteness area and Indigenous status, 2001–02 ($)[(a)(b)]

ASGC remoteness area	Public hospitals		Private hospitals		All hospitals	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Major cities[(c)(d)]	3,326	3,300	1,394	1,977	3,125	2,748
Inner regional[(d)]	2,865	3,242	1,807	2,207	2,809	2,863
Outer regional[(c)]	2,517	3,313	2,172	2,173	2,513	3,008
Remote	3,371	3,276	3,015	2,194	3,370	3,041
Very remote	3,583	3,294	2,445	2,017	3,582	3,049
Total	**3,090**	**3,288**	**1,602**	**2,039**	**3,043**	**2,804**

(a) Costs for private acute and psychiatric hospitals and private free standing day hospitals were estimated from information collected by the ABS (ABS 2003d). Total revenue has also been obtained from the ABS (ABS 2003d).

(b) Estimates adjusted for under-identification.

(c) Darwin is included as an outer regional area under ARIA+.

(d) Hobart is included as an inner regional area under ARIA+.

Source: Calculated from AIHW Hospital morbidity data and unpublished cost data provided by state and territory governments.