Chapter 9: Public hospitals (PH)

The public hospitals chapter

Public hospitals are important providers of government funded health care services in Australia. This chapter reports on the performance of State and Territory public hospitals, with a focus on acute care services. The chapter also reports on a significant component of the services provided by public hospitals — maternity services.

Indigenous data in the public hospitals chapter

The public hospitals chapter in the *Report on Government Services 2003* (ROGS) contains the following data items on Indigenous people:

- Indigenous separations in public and private hospitals, 2000-01;
- Indigenous and non-Indigenous separation rates, public hospitals, 2000-01;
- Indigenous Standardised Hospital Separation Ratios, 2000-01; and
- Discussion of differences in admitted patient expenditures between Indigenous and non-Indigenous people.

Supporting tables

Supporting tables for data within the public hospitals chapter of the compendium are contained in the attachment to the compendium. Supporting tables are identified in references throughout this chapter by the abbreviated chapter name (for example, PH.A5 is table 5 in the public hospitals attachment to the compendium).

As the data are directly sourced from the *Report on Government Services 2003*, the compendium also notes where the original table, figure or text in the Report can be found. For example, where the compendium refers to 'ROGS 2003, p. 6.15' this is page 15 of chapter 6 of the Report and 'ROGS 2003, 6A.2' is attachment table 2 of attachment 6 of the Report.

Public hospitals – Separations by target group

Equity of access to hospital services is a measure of accessibility and hence, of the effectiveness of the health sector. Without appropriate access to hospital services, the consequences of any injury or illness are more likely to be either permanent disability or premature death for a patient. Equity of access has been measured using data on Indigenous and non-Indigenous separations.

Data on Indigenous people are limited by the extent to which Indigenous people are identified in hospital records and completeness is likely to vary across States and Territories. The Australian Bureau of Statistics (ABS 2000c) noted that studies of a limited number of individual hospitals suggest that the proportion of Indigenous people correctly identified in hospital records ranges from less than 50 per cent to close to 100 per cent. It found that for 1998-99, the quality of data on Indigenous hospitalisations was considered acceptable only in the NT, SA and WA (ABS 2000c). National reporting on data quality in hospitals is expected in 2002. In the meantime, few jurisdictions have data of consistent quality — with the exception of the NT (ABS 2000c, Condon *et al.* 1998). In addition, difficulties in estimating the size of the Indigenous population limits the comparability of data over time.

Descriptive data on Indigenous and non-Indigenous separations in public hospitals in 2000-01 are provided in table PH.1. Indigenous separations accounted for around 3 per cent of total separations in 2000-01 (and around 4.5 per cent of separations in public hospitals), although Indigenous people represented around 2 per cent of the total population in 1998 (Australian Institute of Health and Welfare [AIHW] 2002a). Most Indigenous separations occurred in public hospitals (98 per cent). The low proportion of private hospital separations for Indigenous people may be due partly to a lower proportion of Indigenous patients being correctly identified in private hospitals and partly to a lower use of private hospitals (ABS 2000c). Data in table PH.1 need to be interpreted with care. The AIHW advise that only data from SA and the NT are considered to be of acceptable quality (AIHW 2002a).

Table PH.1 **Separations by Indigenous status, 2000-01[a]**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*[b]	*NT*[c]	*Aust*
Number of public hospital separations ('000)									
Indigenous	33.0	7.4	48.6	34.7	12.1	1.0	1.1	35.0	173.0
Non-Indigenous	1 203.2	1 021.2	621.6	327.9	335.9	66.6	58.6	23.8	3 658.8
Not reported	2.3	0.0	18.4	0.0	9.1	4.2	1.6	0.2	35.8
Total	**1 238.4**	**1 028.6**	**688.6**	**362.6**	**357.1**	**71.9**	**61.3**	**59.0**	**3 867.6**
Number of private hospital separations ('000)									
Indigenous	0.4	0.3	1.4	1.9	0.2	0.1	0.1	**na**	4.4
Non-Indigenous	638.0	580.2	417.7	248.2	177.1	25.1	24.3	**na**	2 110.6
Not reported	1.4	0.0	107.2	0.0	7.0	40.0	0.3	**na**	155.8
Total	**639.8**	**580.4**	**526.3**	**250.1**	**184.3**	**65.3**	**24.6**	**na**	**2 270.8**
Separations in public hospitals as a proportion of separations in all hospitals (%)									
Indigenous	99	97	97	95	98	79	95	**na**	98
Non-Indigenous	65	64	60	57	65	73	71	**na**	63

a Identification of Indigenous patients is not considered complete and completeness varies across jurisdictions. **b** Rates reported for the Aboriginal and Torres Strait Islander population in the ACT are subject to variability due to the small population of Aboriginal and Torres Strait Islanders in the jurisdiction. **c** Data for the private hospital in the NT not available. **na** Not available.

Source: AIHW (2002a); ROGS 2003, p. 9.50; table PH.A1.

A performance indicator of Indigenous access to hospitals is given by the rate of separations per 1000 people. Data on separation rates for Indigenous people and all people by State and Territory for all public hospitals are presented in table PH.2. Data regarding private hospital separation rates are contained in table PH.A2.

In 2000-01, on an age-standardised basis, 520 separations (including same day separations) for Indigenous patients were reported per 1000 Indigenous population in Australian public hospitals. This was markedly higher than the corresponding figure for the total population of 195 per 1000. Indigenous separation rates for public hospitals were highest in the NT (875 separations per 1000 Indigenous people) and lowest in Tasmania (91) (table PH.2). It should be noted that the AIHW advise that only data from SA and the NT are considered to be of acceptable quality (AIHW 2002a). Incomplete identification of Indigenous people limits the validity of comparisons over time.

Table PH.2 **Estimates of separations per 1000 people by reported Indigenous status, public hospitals[a, b]**

	NSW	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*ACT*[c]	*NT*	*Aust*
1997-98									
Indigenous people	316	339	503	715	603	152	368	827	504
Total population	195	191	192	192	213	161	204	326	195
1998-99									
Indigenous people	336	331	590	805	673	23	33	887	550
Total population	194	201	205	198	224	165	208	352	201
1999-2000									
Indigenous people	344	380	631	800	771	132	1815	963	592
Total population	187	205	201	196	227	156	215	365	199
2000-01									
Indigenous people	320	356	558	702	646	91	670	875	520
Total population	181	206	191	193	222	145	207	356	195

[a] The rates are directly age-standardised to the Australian population at 30 June 1991. The rates for the years 1997-98 to 1999-2000 are calculated using population estimates based on the 1996 Census. The rates for 2000-01 are calculated using the actual census population counts. [b] Identification of Aboriginal and Torres Strait Islander patients is not considered complete and completeness varies across jurisdictions. [c] Rates reported for the Aboriginal and Torres Strait Islander population in the ACT are subject to variability due to the small population of Aboriginal and Torres Strait Islanders in the jurisdiction.

Source: AIHW (unpublished); ROGS 2003, p.9.51; table PH.A2.

Standardised Hospital Separation Ratios

Data on Indigenous separations for selected conditions are presented for one of the refined national health performance indicators for Aboriginal and Torres Strait Islanders endorsed by Australian Health Ministers' Advisory Council (AHMAC) in 2000 — Standardised Hospital Separation Ratios. It should be noted, however, that the ratios are included in this chapter for descriptive purposes only. The data do not signal the performance of hospitals, but reflect a range of factors, such as the spectrum of public, primary care and post-hospital care available; Indigenous access to these as well as hospital services, social and physical infrastructure services for Indigenous people; and differences in the complexity, incidence and prevalence of disease between the Indigenous and non-Indigenous populations.

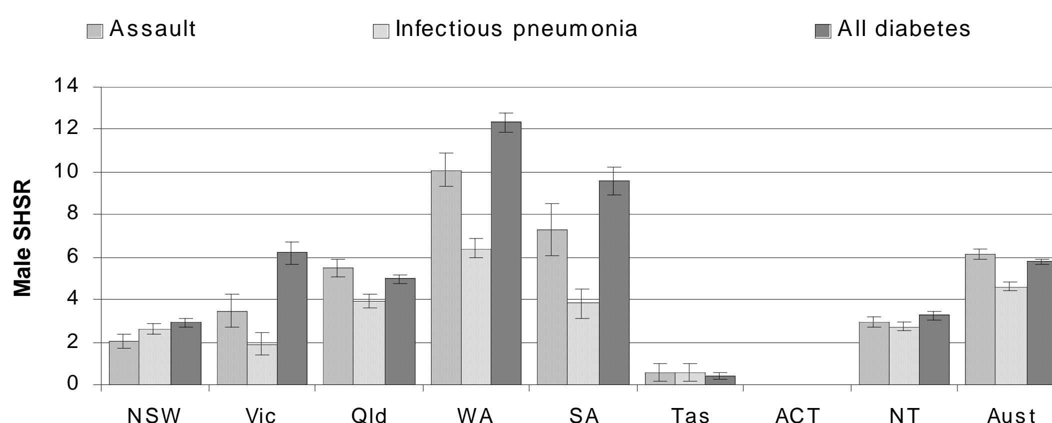
The Standardised Hospital Separation Ratios (SHSR) are calculated by dividing Indigenous separations by 'expected' separations. Expected separations are calculated as the product of the all Australian separation rates and the Indigenous population. The SHSR therefore illustrate differences between the rates of Indigenous hospital admissions and those of the total Australian population, taking into account differences in age distributions. Ratios are presented for six major conditions — circulatory diseases, injury and poisoning, respiratory diseases and

lung cancer, diabetes, tympanoplasty associated with otitis media, and mental health conditions and selected associated International Classification of Diseases (ICD) - ICD-9 and ICD-10 codes (tables PH.A3 and PH.A4).

There was variation across jurisdictions in the proportion of Indigenous people who were identified as such in the hospital morbidity data collections and/or in the total population. The data should therefore be used with care as only the NT and SA data were considered of acceptable quality by the AIHW.

In 2000-01, for all causes and across all hospitals, Indigenous people were close to twice as likely to be hospitalised as all Australians. For males, there was a marked difference between Indigenous separation rates and those of the total population for assault (Indigenous separation rates were 6.2 times higher than for all Australians), all diabetes[1] (Indigenous separation rates were 5.8 times higher than for all Australians), and infectious pneumonia (Indigenous separation rates were 4.6 times higher than for all Australians) (figure PH.1). (While the standardised rates for Indigenous males for rheumatic heart disease and tympanoplasty associated with otitis media also appear markedly higher than for the Australian population, the number of separations for these conditions was very small [table PH.A3].)

Figure PH.1 **Indigenous males: standardised hospital separation ratios for selected conditions, 2000-01[a, b, c]**



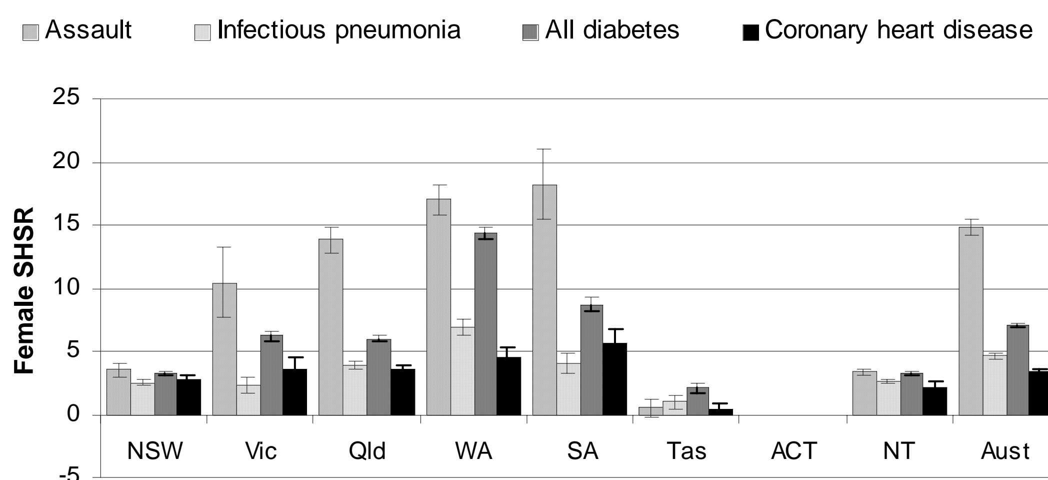
a The ratios are indirectly age-standardised to the Australian population aged 0–74 years at 30 June 1999. **b** The ACT data are not considered reliable due to the small size of the Indigenous population in that jurisdiction. **c** It should be noted that these data do not signal the performance of hospitals, but reflect a range of factors such as the spectrum of public, primary care and post hospital care available; Indigenous access to these as well as hospital services, social and physical infrastructure services for Indigenous people; and differences in the complexity, incidence and prevalence of disease between the Indigenous and non-Indigenous populations. Information on the Indigenous population in each jurisdiction is contained in the statistical appendix.

Source: AIHW (unpublished); ROGS 2003, p. 9.52; table PH.A3.

[1] ‘All diabetes’ refers to separations with either a principal or additional diagnosis of diabetes.

Indigenous females' separation rates were markedly higher than those for all females for assault (the rate for Indigenous females was 14.9 times the rate for all females), all diabetes (the rate for Indigenous females was 7.1 times the rate for all females), infectious pneumonia (the rate for Indigenous females was 4.6 times the rate for all females) and coronary heart disease (the rate for Indigenous females was 3.4 times the rate for all females) (figure PH.2). (While the standardised rates for Indigenous females for rheumatic heart disease and tympanoplasty associated with otitis media also appear markedly higher than for the Australian population, the number of separations for these conditions was very small [table PH.A4].)

Figure PH.2 **Indigenous females: standardised hospital separation ratios for selected conditions, 2000-01**[a, b, c]



a The ratios are indirectly age-standardised to the Australian population aged 0–74 years at 30 June 1999. **b** The ACT data are not considered reliable due to the small size of the Indigenous population in that jurisdiction. **c** It should be noted that these data do not signal the performance of hospitals, but reflect a range of factors such as the spectrum of public, primary care and post hospital care available; Indigenous access to these as well as hospital services, social and physical infrastructure services for Indigenous people; and differences in the complexity, incidence and prevalence of disease between the Indigenous and non-Indigenous populations. Information on the Indigenous population in each jurisdiction is contained in the statistical appendix.

Source: AIHW (unpublished); ROGS 2003, p. 9.53; table PH.A4.

Recurrent costs per casemix-adjusted separation

The ROGS reports recurrent cost per casemix adjusted separation as an indicator of efficiency. The AIHW (2001a) has shown that hospital recurrent expenditures on Indigenous and non-Indigenous people may differ (box PH.1). This may influence unit cost outcomes.

Box PH.1 **Admitted patient costs for Indigenous people, 1998-99**

The AIHW (2001a) notes that there are a number of factors driving differences in admitted patient expenditures between Indigenous people and non-Indigenous people.

- The average Australian revised diagnosis related group (AR-DRG) cost weight for Indigenous patients is lower than for non-Indigenous patients due to their higher numbers of low cost AR-DRGs, such as dialysis, and lower numbers of high cost surgical AR-DRGs.
- The average length of hospital stay for Indigenous people tends to be longer than for non-Indigenous people within the same AR-DRG. This leads to higher costs per episode and can be attributed to case complexity, hospital and regional cost variations, differences in clinical practice and post-discharge support.
- A high proportion of Indigenous people live in areas where the hospitals are relatively high cost, such as those in remote parts of Australia. On the other hand, in some cases, a high proportion of Indigenous people live in the vicinity of lower cost hospitals, such as small non-remote rural hospitals and remote Queensland hospitals.[2]
- In addition, there is evidence that cost per separation for Indigenous people is higher due to the higher costs of caring for patients with greater comorbidities. These costs are in addition to those associated with longer lengths of stay. The AIHW (2001a) added a 5 per cent cost loading for Indigenous admitted patients to account for this effect.

Overall, after adjusting for length of stay and differences in hospital costs due to locational factors, costs per separation within AR-DRGs for Indigenous patients were 6 per cent higher than for non-Indigenous patients. This varied across jurisdictions. Costs per separation for Indigenous patients in NSW were 4 per cent lower and Queensland costs 6 per cent lower, whereas, WA, SA and NT costs per separation for Indigenous patients were respectively 5 per cent, 13 per cent and 6 per cent higher. Higher costs in SA were the result of treatment of Indigenous patients that are many hundreds of kilometres from home. Many of the high cost NT patients are treated in SA hospitals.

Source: AIHW (2001a); ROGS 2003, p.9.57.

[2] In 1998-99, over a quarter of the Indigenous population (27.5 per cent) lived in remote areas, compared with only 2.6 per cent of the total Australian population (AIHW 2001b).