

3.07 Discharge against medical advice

The rate at which Aboriginal and Torres Strait Islander peoples leave hospital against medical advice or are discharged at their own risk

Data sources

Data for this measure come from the AIHW's National Hospital Morbidity Database.

The National Hospital Morbidity Database is a compilation of episode-level records from admitted patient morbidity data collection systems in Australian hospitals in each state and territory. Information on the characteristics, diagnoses and care of admitted patients in public and private hospitals is provided annually to the AIHW by state and territory health departments.

Data are presented for the four jurisdictions that have been assessed as having adequate identification of Indigenous hospitalisations in 2003–04 – Queensland, Western Australia, South Australia and the Northern Territory (AIHW 2005). These four jurisdictions represent approximately 60% of the Indigenous population of Australia. Data are presented by state/territory of usual residence of the patient.

Hospitalisations for which the Indigenous status of the patient was not reported have been included with hospitalisations data for non-Indigenous people under the 'other' category. This is to enable consistency across jurisdictions as public hospitals in some states and territories do not have a category for the reporting of 'not stated' or inadequately recorded/reported Indigenous status.

Hospitalisation data are presented for the two-year period July 2002 to June 2004. An aggregate of two years of data has been used as the number of hospitalisations for some conditions is likely to be small for a single year.

The principal diagnosis is the diagnosis established to be the problem that was chiefly responsible for the patient's episode of care in hospital. The term 'hospitalisation' has been used to refer to a separation which is the episode of admitted patient care, which can be a total hospital stay (from admission to discharge, transfer or death) or a change in a type of care (for example, from acute to rehabilitation).

Analyses

Age-standardised rates and ratios have been used for this indicator as a measure of hospitalisations in the Indigenous population relative to other Australians. Ratios of this type illustrate differences between the rates of hospital admissions among Indigenous people and those of other Australians, taking into account differences in age distributions.

Hospitalisations

- For the period July 2002 to June 2004, in Queensland, Western Australia, South Australia and the Northern Territory combined, there were 21,023 hospitalisations where the

patient left hospital against medical advice or was discharged at their own risk, 8,450 (40.2%) of which were hospitalisations of Indigenous patients.

- For approximately 3% of all hospitalisations of Indigenous Australians, the patient was discharged against medical advice.

Hospitalisations by age and sex

- A slightly higher proportion of Indigenous males were discharged from hospital against medical advice (3.2%) than Indigenous females (2.5%) (Table 3.07.1).
- Indigenous Australians aged 25–34 and 35–44 years were most likely to be discharged from hospital against medical advice. Indigenous Australians in these age groups were discharged from hospital against medical advice at 20–30 times the rate of other Australians (Table 3.07.2).

Table 3.07.1: Discharges from hospital against medical advice, by Indigenous status and sex (excluding mental and behavioural disorders), Qld, WA, SA and NT, July 2002 to June 2004^{(a)(b)(c)(d)}

	Number		Per cent ^(e)		Indigenous			Other ^(f)			Rate Ratio ^(j)
	Indigenous	Other ^(f)	Indigenous	Other ^(f)	Rate per 1000 ^(g)	95% LCL ^(h)	95% UCL ⁽ⁱ⁾	Rate per 1,000 ^(g)	95% LCL ^(h)	95% UCL ⁽ⁱ⁾	
Males	4,030	7,390	3.2	0.3	17.7	17.1	18.3	1.0	1.0	1.1	17.1*
Females	4,420	5,183	2.5	0.2	16.4	15.9	16.9	0.7	0.7	0.7	22.6*
Persons	8,450	12,573	2.8	0.3	17.0	16.6	17.4	0.9	0.9	0.9	19.4*

* Represents results with statistically significant differences in the Indigenous/other comparisons at the p<.05 level.

(a) Data are from public and most private hospitals. Data exclude private hospitals in the Northern Territory.

(b) Categories are based on the ICD-10-AM (National Centre for Classification in Health 2004).

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised and are for Queensland, Western Australia, South Australia and the Northern Territory only. These four jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Data for these four jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Hospitalisation data for four jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

(e) Percentage of hospital separations (excluding mental and behavioural disorders) in the period 2002–03 to 2003–04.

(f) Other includes hospitalisations of non-Indigenous people and those for whom Indigenous status was not stated.

(g) Directly age standardised using the Australian 2001 Standard population.

(h) LCL = lower confidence limit.

(i) UCL = upper confidence limit.

(j) Rate ratio Indigenous:other.

Source: AIHW analysis of AIHW National Hospital Morbidity Database.

Table 3.07.2: Discharges from hospital against medical advice, by Indigenous status and age group (excluding mental and behavioural disorders), Qld, WA, SA and NT, July 2002 to June 2004^{(a)(b)(c)(d)}

Age group (years)	Number		Per cent ^(e)		Indigenous			Other ^(f)			Rate Ratio ^(j)
	Indigenous	Other ^(f)	Indigenous	Other ^(f)	Rate per 1,000 ^(g)	95% LCL ^(h)	95% UCL ⁽ⁱ⁾	Rate per 1,000 ^(g)	95% LCL ^(h)	95% UCL ⁽ⁱ⁾	
0–4	587	344	4.3	0.2	8.0	7.5	8.8	0.4	0.3	0.4	21.1*
5–14	151	185	2.2	0.1	1.1	0.9	1.2	0.1	0.1	0.1	11.1*
15–24	1,448	2,275	9.7	0.7	13.2	12.5	13.9	1.1	1.1	1.2	11.5*
25–34	2,464	2,797	12.4	0.6	27.2	26.1	28.3	1.4	1.3	1.4	19.9*
35–44	2,200	2,428	7.9	0.5	31.0	29.7	32.3	1.1	1.1	1.1	27.9*
45–54	1,168	1,749	3.5	0.3	26.1	24.6	27.6	0.9	0.8	0.9	30.2*
55–64	313	1,237	1.3	0.2	13.7	12.2	15.3	0.8	0.8	0.8	16.7*
65+	119	1,558	0.7	0.1	7.5	6.1	8.8	0.9	0.8	0.9	8.6*
Total^(k)	8,450	12,573	2.8	0.3	17.0	16.6	17.4	0.9	0.9	0.9	19.4*

* Represents results with statistically significant differences in the Indigenous/other comparisons at the p<.05 level.

(a) Data are from public and most private hospitals. Data exclude private hospitals in the Northern Territory.

(b) Categories are based on the ICD-10-AM (National Centre for Classification in Health 2004).

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised and are for Queensland, Western Australia, South Australia and the Northern Territory only. These four jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Data for these four jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Hospitalisation data for four jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

(e) Percentage of hospital separations (excluding mental and behavioural disorders) in the period 2002–03 to 2003–04.

(f) Other includes hospitalisations of non-Indigenous people and those for whom Indigenous status was not stated.

(g) Directly age standardised using the Australian 2001 Standard population.

(h) LCL = lower confidence limit.

(i) UCL = upper confidence limit.

(j) Rate ratio Indigenous:other.

Source: AIHW analysis of AIHW National Hospital Morbidity Database.

Hospitalisations by state/territory

- Overall, Indigenous Australians in Queensland, Western Australia, South Australia and the Northern Territory combined were discharged from hospital against medical advice at 19 times the rate of other Australians.
- In Queensland, Indigenous Australians were discharged from hospital against medical advice at eight times the rate of other Australians. In Western Australia, South Australia and the Northern Territory, Indigenous Australians were discharged from hospital against medical advice at 29, 24 and 28 times the rate of other Australians in these jurisdictions respectively (Table 3.07.3; Figure 3.07.1).

Table 3.07.3: Discharges from hospital against medical advice, by Indigenous status and state/territory (excluding mental and behavioural disorders), Qld, WA, SA and NT, July 2002 to June 2004^{(a)(b)(c)(d)}

	Number		Per cent ^(e)		Indigenous			Other ^(f)			Rate Ratio ^(j)
	Indig.	Other	Indig.	Other	Rate per 1,000 ^(g)	95% LCL ^(h)	95% UCL ⁽ⁱ⁾	Rate per 1000 ^(g)	95% LCL ^(h)	95% UCL ⁽ⁱ⁾	
Qld	1,653	6,876	1.5	0.3	7.5	7.1	7.9	0.9	0.9	1.0	8.0*
WA	2,832	3,094	3.4	0.3	23.6	22.6	24.6	0.8	0.8	0.8	28.8*
SA	857	2,345	3.1	0.2	18.9	17.5	20.2	0.8	0.8	0.8	24.0*
NT	3,108	258	3.8	0.5	28.9	27.8	30.1	1.1	0.9	1.2	27.5*
Qld, WA, SA and NT	8,450	12,573	2.8	0.3	17.0	16.6	17.4	0.9	0.9	0.9	19.4*

* Represents results with statistically significant differences in the Indigenous/other comparisons at the p<.05 level.

(a) Data are from public and most private hospitals. Data exclude private hospitals in the Northern Territory.

(b) Categories are based on the ICD-10-AM (National Centre for Classification in Health 2004).

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised and are for Queensland, Western Australia, South Australia, and the Northern Territory only. These four jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Data for these four jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Hospitalisation data for four jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

(e) Percentage of hospital separations (excluding mental and behavioural disorders) in the period 2002–03 to 2003–04.

(f) Other includes hospitalisations of non-Indigenous people and those for whom Indigenous status was not stated.

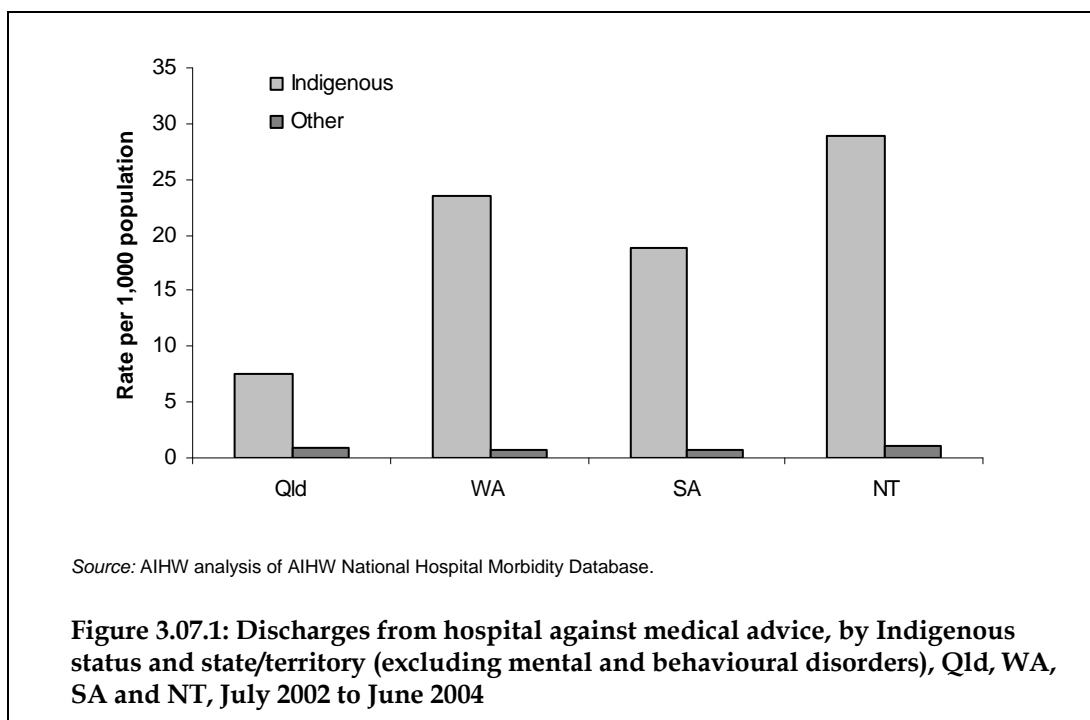
(g) Directly age standardised using the Australian 2001 Standard population.

(h) LCL = lower confidence limit.

(i) UCL = upper confidence limit.

(j) Rate ratio Indigenous:other.

Source: AIHW analysis of AIHW National Hospital Morbidity Database.



Hospitalisations by principal diagnosis

- The most common principal diagnoses of hospitalisations of Indigenous Australians who were discharged against medical advice were injury and poisoning (2,027 separations) followed by respiratory diseases (1,228 separations). These two groups of diagnoses represented 39% of all hospitalisations discharged against medical advice. As a proportion of all Indigenous separations for each specific diagnoses group, discharge against medical advice was also highest for injury and poisoning (8%), followed by diseases of the skin (7%) and symptoms, signs and abnormal clinical and laboratory findings (7%) (Table 3.07.4).
- Indigenous Australians who were hospitalised for injury and poisoning were discharged from hospital against medical advice at 19 times the rate of other Australians. Indigenous Australians who were hospitalised for respiratory diseases were discharged against medical advice at 42 times the rate of other Australians and Indigenous Australians who were hospitalised for infectious and parasitic diseases were discharged from hospital against medical advice at 41 times the rate of other Australians.

Table 3.07.4: Discharges from hospital against medical advice, by Indigenous status and principal diagnosis (excluding mental and behavioural disorders), Qld, WA, SA and NT, July 2002 to June 2004^{(a)(b)(c)(d)}

	Number		Per cent ^(e)		Indigenous			Other ^(f)			Rate Ratio ⁽ⁱ⁾
	Indigenous	Other ^(f)	Indigenous	Other ^(f)	Rate per 1,000 ^(g)	95% LCL ^(h)	95% UCL ⁽ⁱ⁾	Rate per 1000 ^(g)	95% LCL ^(h)	95% UCL ⁽ⁱ⁾	
Injury, poisoning and certain other consequences of external causes (S00–Y98)	2,027	2,865	8.0	0.9	3.8	3.6	4.0	0.2	0.2	0.2	19.1*
Diseases of the respiratory system (J00–J99)	1,228	908	5.4	0.4	2.6	2.5	2.8	0.1	0.1	0.1	41.7*
Diseases of the digestive system (K00–K93)	778	1,387	5.2	0.2	1.6	1.5	1.8	0.1	0.1	0.1	17.0*
Symptom, signs and abnormal clinical and laboratory findings, nec (R00–R99)	742	1,791	6.5	0.6	1.6	1.5	1.7	0.1	0.1	0.1	13.0*
Complications of pregnancy, childbirth and the puerperium (O00–O99)	644	1,070	2.7	0.3	0.9	0.9	1.0	0.1	0.1	0.1	12.4*
Diseases of the skin and subcutaneous tissue (L00–L99)	519	442	6.5	0.5	1.0	0.9	1.1	0.0	0.0	0.0	32.0*
Certain infectious and parasitic diseases (A00–B99)	438	265	5.7	0.4	0.8	0.7	0.8	0.0	0.0	0.0	40.5*
Endocrine, nutritional and metabolic diseases (E00–E90)	396	412	6.3	0.5	0.9	0.8	1.0	0.0	0.0	0.0	30.1*
Diseases of the circulatory system (I00–I99)	373	1,004	3.8	0.3	1.0	0.9	1.1	0.1	0.1	0.1	15.0*
Diseases of the genitourinary system (N00–N99)	315	490	3.9	0.2	0.6	0.6	0.7	0.0	0.0	0.0	18.9*
Diseases of the musculoskeletal system (M00–M99)	253	450	5.1	0.2	0.5	0.5	0.6	0.0	0.0	0.0	17.3*
Other ^(k)	736	1,486	0.5	0.1	1.5	1.4	1.6	0.1	0.1	0.1	14.8*
Total^(l)	8,450	12,573	2.8	0.3	17.0	16.6	17.4	0.9	0.9	0.9	19.4*

(continued)

Table 3.07.4 (continued): Discharges from hospital against medical advice, by Indigenous status and principal diagnosis (excluding mental and behavioural disorders), Qld, WA, SA and NT, July 2002 to June 2004^{(a)(b)(c)(d)}

* Represents results with statistically significant differences in the Indigenous/other comparisons at the $p < .05$ level.

- (a) Data are from public and most private hospitals. Data exclude private hospitals in the Northern Territory.
- (b) Categories are based on the ICD-10-AM (National Centre for Classification in Health 2004).
- (c) Financial year reporting.
- (d) Data are reported by state/territory of usual residence of the patient hospitalised and are for Queensland, Western Australia, South Australia, and the Northern Territory only. These four jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Data for these four jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Hospitalisation data for four jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.
- (e) Percentage of hospital separations (excluding mental and behavioural disorders) in the period 2002–03 to 2003–04.
- (f) Includes hospitalisations for which no principal diagnosis was recorded. Excludes mental and behavioural disorders (F00–F99).
- (g) Directly age standardised using the Australian 2001 Standard population.
- (h) LCL = lower confidence limit.
- (i) UCL = upper confidence limit.
- (j) Rate ratio Indigenous:other.
- (k) Other includes hospitalisations of non-Indigenous people and those for whom Indigenous status was not stated.
- (l) Includes: neoplasms, diseases of the nervous system, certain conditions originating in the perinatal period, diseases of the ear and mastoid process, diseases of the eye and adnexa, diseases of the blood and blood-forming organs and certain disorders involving the immune system, and congenital malformations, deformations and chromosomal abnormalities and factors influencing health status and contact with health services.

Source: AIHW analysis of AIHW National Hospital Morbidity Database.

Time series analyses

The number and rate of hospitalisations for which Indigenous and other Australians were discharged against medical advice over the five-year period 1998–99 to 2003–04 are presented in Table 3.07.5.

- Over the period 1998–99 to 2003–04, in Queensland, Western Australia, South Australia and the Northern Territory combined, there were significant increases in the rate at which Indigenous Australians were discharged from hospital against medical advice. The fitted trend implies an average annual increase in the rate of around 0.2 per 1,000. It should be noted that most of the increase took place between 1998–99 and 1999–00 after which rates remained relatively stable.
- Over the same period, there were no significant changes in the rates at which other Australians were discharged from hospital against medical advice.

It should be noted that changes in the level of accuracy of Indigenous identification in hospital records will result in changes in the level of reported hospital separations for Indigenous Australians. Also, changes in access, hospital policies and practices all impact on the level of hospitalisation over time. Caution should be used in interpreting changes over time as it is not possible to ascertain whether a change in reported hospitalisation is due to changes in the accuracy of Indigenous identification or real changes in the rates at which Indigenous people are hospitalised. An increase in hospitalisation rates may reflect better access to hospitals rather than a worsening of health.

Table 3.07.5: Discharges against medical advice, by Indigenous status (excluding mental and behavioural disorders), Qld, WA, SA and NT, 1998–99 to 2003–04^{(a)(b)(c)(d)}

	Number		Indigenous			Other ^(e)			Rate Ratio ⁽ⁱ⁾
	Indigenous	Other ^(e)	Rate per 1000 ^(f)	95% LCL ^(g)	95% UCL ^(h)	Rate per 1,000 ^(f)	95% LCL ^(g)	95% UCL ^(h)	
1998–99	3,917	6,089	16.6	16.0	17.2	0.9	0.9	0.9	18.5*
1999–00	4,196	6,383	17.5	16.9	18.1	0.9	0.9	1.0	18.8*
2000–01	4,206	6,520	17.4	16.8	18.0	0.9	0.9	1.0	18.5*
2001–02	4,387	6,531	17.5	16.9	18.1	0.9	0.9	1.0	18.8*
2002–03	4,343	6,222	17.3	16.8	17.9	0.9	0.9	0.9	19.9*
2003–04	4,514	6,534	17.8	17.2	18.3	0.9	0.9	0.9	19.7*

* Represents results with statistically significant differences in the Indigenous/other comparisons at the $p < .05$ level.

(a) Data are from public and most private hospitals. Data exclude private hospitals in the Northern Territory.

(b) Categories are based on the ICD-10-AM (National Centre for Classification in Health 2004).

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised and are for Queensland, Western Australia, South Australia, and the Northern Territory only. These four jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Data for these four jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Hospitalisation data for four jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

(e) Other includes hospitalisations of non-Indigenous people and those for whom Indigenous status was not stated.

(f) Directly age standardised using the Australian 2001 Standard population.

(g) LCL = lower confidence limit.

(h) UCL = upper confidence limit.

(i) Rate ratio - Indigenous: Other.

Source: AIHW analysis of AIHW National Hospital Morbidity Database.

Data quality issues

Hospital separations data

Separations

The number and pattern of hospitalisations can be affected by differing admission practices among the jurisdictions and from year to year, and differing levels and patterns of service delivery.

Indigenous status question

Some jurisdictions have slightly different approaches to the collection and storage of the standard Indigenous status question and categories in their hospital collections. The not stated category is missing from several collections. It is recommended that the standard wording and categories be used in all jurisdictions (AIHW 2005).

Under-identification

The incompleteness of Indigenous identification means the number of hospital separations recorded as Indigenous is an underestimate of hospitalisations of Aboriginal and Torres Strait Islander people. While the identification of Indigenous people in hospitalisations is incomplete in all states and territories, four jurisdictions (Queensland, Western Australia, South Australia and the Northern Territory) have been assessed as having adequate identification in 2003–04 (AIHW 2005). It has therefore been recommended that reporting of Indigenous hospital separations be limited to aggregated information from Queensland, Western Australia, South Australia and the Northern Territory. The proportion of the Indigenous population covered by these four jurisdictions is 60%. The following caveats have also been recommended:

- *Interpretation of results should take into account the relative quality of the data from the jurisdictions included (currently a degree of Indigenous under-identification in Western Australia and relatively marked Indigenous under-identification in Queensland data).*
- *Data for these four jurisdictions over-represent Indigenous populations in less urbanised and more remote locations.*
- *Hospitalisation data for four jurisdictions should not be assumed to represent the hospitalisation experience in other jurisdictions (ABS & AIHW 2005).*

Numerator and denominator

Rate and ratio calculations rely on good numerator and denominator data. The changes in the completeness of identification of Indigenous people in hospital records may take place at different rates than changes in the identification of Indigenous people in other administrative collections and population censuses. Denominators used here are sourced from the ABS's Experimental estimates and projections: Aboriginal and Torres Strait Islander Australians 1991 to 2009 (ABS 2004).

References

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