

## CHAPTER 4

## PRINCIPAL DIAGNOSES

### PRINCIPAL DIAGNOSIS

Reasons for hospitalisation can be analysed in several ways e.g. principal diagnoses, procedures, or external causes. In this chapter of the publication, information is presented by principal diagnosis, and a summary of external causes for separations with principal diagnoses of 'injury, poisoning and certain other consequences of external causes' is also provided.

In this publication, principal diagnoses were reported using The International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM). Each principal diagnosis is grouped into an ICD-10-AM chapter — see Appendix A for a listing of the ICD-10-AM codes and names for each chapter and subcategory used in this publication. Some titles have been abbreviated in this publication for use in tables and graphs, for example, chapter XXI in ICD-10-AM is titled 'factors influencing health status and contact with health services', and in tables and graphs in this publication it is referred to as 'factors influencing health status'. Principal diagnoses group/chapter titles represent all principal diagnosis contained within them, for example, the phrase 'the principal diagnosis was respiratory disease' equates to the principal diagnosis being in the respiratory disease group/chapter. Terms used in graph/table headings, such as 'hospital separations for respiratory diseases', are proxy for the full titles, which would be 'hospital separations reported with a principal diagnosis in the ICD-10-AM chapter respiratory diseases'. The term 'main reason for hospitalisation' has been used to mean 'principal diagnosis'. Analysis should be conducted in light of the definition of principal diagnosis provided in chapter 2.

In this chapter of the publication, data are presented in order of the most frequently recorded ICD-10-AM principal diagnosis chapters. A summary table is presented however, in standard ICD-10-AM chapter order (table 4.1).

'Factors influencing health status and contact with health services' was the most frequently recorded principal diagnosis for Indigenous patients during 1999–2000. This principal diagnosis includes 'care involving dialysis'. 'Care involving dialysis' accounted for 28% of male separations and 30% of female separations (table 4.1). The next three most commonly recorded principal diagnoses were in the chapters for: 'pregnancy, childbirth and puerperium'; 'injury, poisoning and certain other consequences of external causes'; and 'respiratory diseases'. Over half of all separations that were recorded as Indigenous had a principal diagnosis in one of these four groups, 52% of separations for males and 61% of separations for females (table 4.1, graph 4.2).

#### 4.1 HOSPITAL SEPARATIONS RECORDED AS INDIGENOUS, BY PRINCIPAL DIAGNOSIS(a)

	<i>Separations recorded for patients identified as Indigenous</i>		<i>Proportion of separations for patients recorded as Indigenous</i>		<i>Directly age-standardised rate(b)</i>		<i>Rate ratio(c)</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
	<i>no.</i>	<i>no.</i>	<i>%</i>	<i>%</i>				
Infectious/parasitic diseases	2 476	2 379	3.4	2.4	10.8	10.3	2.3	2.3
Neoplasms	1 030	1 598	1.4	1.6	12.9	13.8	0.6	0.7
Diseases of the blood, blood-forming organs & immune mechanism	269	525	0.4	0.5	2.5	3.9	0.8	1.2
Endocrine, nutritional & metabolic diseases	1 301	1 580	1.8	1.6	11.7	12.4	4.2	3.7
Mental & behavioural disorders	4 338	3 301	6.0	3.4	25.7	18.4	2.2	1.4
Nervous system diseases	1 751	1 183	2.4	1.2	12.0	7.4	1.8	1.3
Diseases of the eye & adnexa	624	751	0.9	0.8	7.8	8.5	1.0	1.0
Diseases of the ear & mastoid process	949	924	1.3	0.9	3.2	3.4	1.0	1.3
Circulatory diseases	3 390	3 168	4.7	3.2	37.5	30.8	1.5	1.9
Respiratory diseases	7 880	7 669	11.0	7.8	47.5	47.0	2.6	3.2
Digestive diseases	4 929	4 989	6.9	5.1	34	31.5	1.0	0.9
Diseases of the skin & subcutaneous tissue	2 768	2 517	3.8	2.6	16.1	13.7	2.8	2.9
Diseases of the musculoskeletal system & connective tissue diseases	1 762	1 655	2.4	1.7	13.0	12.0	0.7	0.8
Genitourinary system diseases	1 551	4 481	2.2	4.6	13.7	28.6	1.2	1.2
Pregnancy, childbirth & puerperium	—	15 534	—	15.8	—	68.2	—	1.4
Certain conditions originating in the perinatal period	1 238	991	1.7	1.0	3.1	2.6	1.0	1.0
Congenital anomalies	406	330	0.6	0.3	1.2	1.0	0.6	0.6
Symptoms, signs not elsewhere classified	3 463	4 008	4.8	4.1	25.1	25.8	1.6	1.5
Injury/poisoning	8 817	7 193	12.3	7.3	47.5	38.9	1.9	2.3
Factors influencing health status(d)								
Care involving dialysis	20 451	29 646	28.3	30.1	194.8	263.3	6.4	14.0
Other	2 852	4 040	3.9	4.1	22.4	26.6	0.7	0.8
<i>Total</i>	23 303	33 686	32.2	34.2	217.1	289.8	3.6	5.7
Not specified	86	69	0.2	0.1	1.5	0.9	5.5	2.8
<b>Total (excluding care involving dialysis)</b>	<b>51 880</b>	<b>68 885</b>	<b>71.7</b>	<b>69.9</b>	<b>349.4</b>	<b>405.8</b>	<b>1.4</b>	<b>1.4</b>
<b>Total (including care involving dialysis)</b>	<b>72 331</b>	<b>98 531</b>	<b>100.0</b>	<b>100.0</b>	<b>544.2</b>	<b>669.0</b>	<b>1.9</b>	<b>2.2</b>

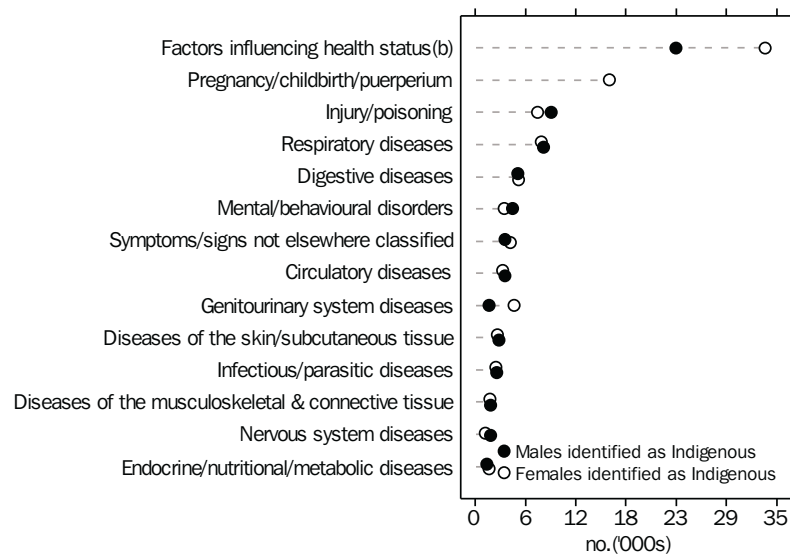
(a) Data are for the financial year 1999–2000 for public and private hospitals. No data were available for a number of small private and private free-standing day hospital facilities. External causes not included.

(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

(d) Includes hospitalisation for care involving dialysis, chemotherapy, radiotherapy and other reasons for contact that are not a disease or injury classified elsewhere.

#### 4.2 MOST COMMON PRINCIPAL DIAGNOSES(a)



(a) Data are for the financial year 1999–2000.

(b) Includes hospitalisation for care involving dialysis, chemotherapy, radiotherapy and other reason for contact that are not a disease or injury classified elsewhere.

Factors influencing health status and contact with health services

Under this principal diagnosis, the codes Z00–Z99 are provided for occasions when circumstances other than a disease, injury or external cause (classifiable to codes A00–Y89), are recorded as ‘diagnoses’. These occasions can arise in two main ways:

(a) when a person who may or may not be sick has a health service encounter for a specific purpose, e.g. to receive limited care for a current condition, to donate an organ or tissue, to receive prophylactic vaccination; or to discuss a problem which is in itself not a disease or injury.

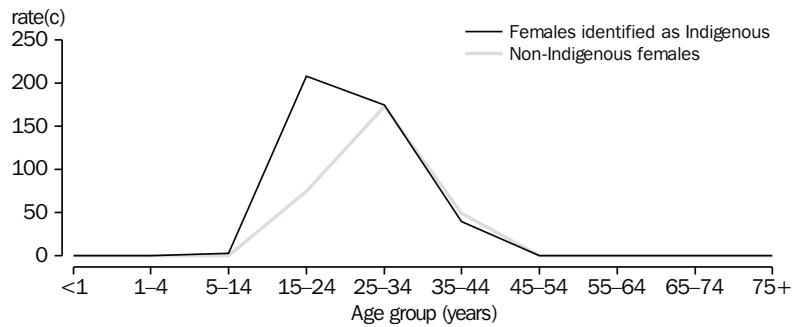
(b) when a circumstance or problem is present which influences the person’s health status but is not in itself a current illness or injury (National Centre for Classification in Health (NCCH) 1998).

In 1999–2000, ‘factors influencing health status and contact with health services’ was the reported principal diagnosis for about 30% of all separations for persons identified as Indigenous. ‘Care involving dialysis’ was the major principal diagnosis, accounting for 89% of these separations for patients identified as Indigenous (table 4.1). Indigenous patients had a higher rate of separations for ‘care involving dialysis’ when compared with non-Indigenous patients. Males identified as Indigenous had 6 times as many separations for ‘care involving dialysis’ as non-Indigenous males. Females identified as Indigenous had 14 times as many separations for ‘care involving dialysis’ as non-Indigenous females (table 4.1). Data on the associated procedure haemodialysis are described in chapter 5.

Pregnancy, childbirth and puerperium

'Pregnancy, childbirth and puerperium' includes normal labour and deliveries. Separations relating to 'pregnancy, childbirth and puerperium' accounted for 16% of all separations for females identified as Indigenous (table 4.1). The rate of hospitalisation was higher for Indigenous females than for non-Indigenous females up to the age of 24 years (graph 4.3), which reflects the higher birth rates among younger Indigenous women (Day et al. 1999).

#### 4.3 HOSPITAL SEPARATIONS FOR PREGNANCY, CHILDBIRTH AND PUERPERIUM(a)



(a) Data are for the financial year 1999–2000.

(b) Includes normal delivery.

(c) Per 1,000 population.

Females identified as Indigenous had more separations in 1999–2000, when compared with non-Indigenous females for all of the reported subcategories (table 4.4).

#### 4.4 AGE-STANDARDISED RATES FOR PREGNANCY, CHILDBIRTH AND PUERPERIUM(a)

	Indigenous females			
	Separations			rate ratio(c)
	no.	%	rate(b)	
Pregnancy with abortive outcome	2 009	2.0	8.9	1.1
Duration of pregnancy, oedema, proteinuria, hypertensive disorders	888	0.9	4.0	1.3
Other maternal disorders, related to pregnancy	1 646	1.7	7.3	2.4
Maternal care — fetus, amniotic cavity & delivery	3 840	3.9	16.9	1.5
Complications of labour and delivery	3 913	4.0	17.0	1.2
Single delivery	1 652	1.7	7.2	1.8
Complications related to puerperium	287	0.3	1.2	1.1
Other obstetric conditions	1 299	1.3	5.7	2.5
<b>Total</b>	<b>15 534</b>	<b>15.8</b>	<b>68.2</b>	<b>1.4</b>

(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

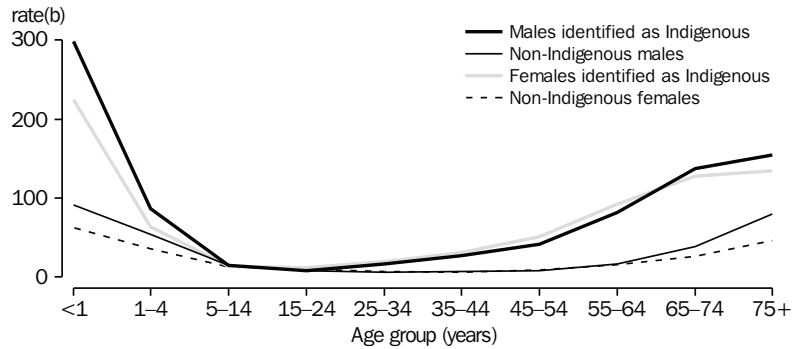
Respiratory diseases

Respiratory system diseases accounted for 11% of all separations for males identified as Indigenous, and 8% of separations for females identified as Indigenous (table 4.1).

Respiratory diseases  
continued

During infancy and early childhood, children identified as Indigenous had considerably higher hospital separation rates than the non-Indigenous rates. For age groups over 25 years, females and males identified as Indigenous had higher hospital separation rates than the non-Indigenous rates (graph 4.5). 'Respiratory diseases' were the main reason for hospitalisation for over 30% of separations recorded for Indigenous infants and children aged 1–4 years.

4.5 HOSPITAL SEPARATIONS FOR RESPIRATORY DISEASES(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Separation rates were higher for most types of respiratory diseases for persons who were identified as Indigenous when compared to rates for non-Indigenous persons. Overall, the Indigenous male rate was 2.6 times as high as the rate for non-Indigenous males with a principal diagnosis of respiratory diseases, and the Indigenous female rate was 3.2 times as high (table 4.6). Separations recorded for Indigenous persons were most likely to have been classified to the subcategories 'influenza and pneumonia', 'other acute lower respiratory infections' and 'chronic lower respiratory diseases', and were the principal diagnoses where Indigenous separation rates were much higher than the non-Indigenous rates for both males and females. For 'influenza and pneumonia', the separation rates were 4.6 times as high for males, and 4.9 times as high for females.

#### 4.6 AGE-STANDARDISED RATES FOR RESPIRATORY DISEASES(a)

	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>			<i>rate ratio(c)</i>	<i>Separations</i>			<i>rate ratio(c)</i>
	<i>no.</i>	<i>%</i>	<i>rate(b)</i>		<i>no.</i>	<i>%</i>	<i>rate(b)</i>	
Acute upper respiratory infections	1 047	1.4	3.4	1.7	956	1.0	4.0	2.5
Influenza and pneumonia	2 417	3.3	15.2	4.6	2 114	2.1	12.6	4.9
Other acute lower respiratory infection	1 802	2.5	7.8	4.7	1 613	1.6	7.7	5.7
Other diseases, upper respiratory tract	338	0.5	1.5	0.4	383	0.4	1.6	0.4
Chronic lower respiratory diseases	1 879	2.6	16.6	3.0	2 322	2.4	18.8	4.1
Other respiratory diseases	397	0.5	3.0	1.9	281	0.3	2.4	2.6
<b>Total</b>	<b>7 880</b>	<b>11.0</b>	<b>47.5</b>	<b>2.6</b>	<b>7 669</b>	<b>7.8</b>	<b>47.0</b>	<b>3.2</b>

(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

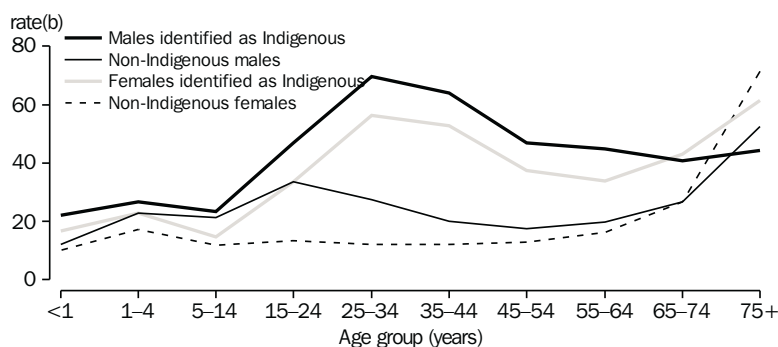
Injury, poisoning and certain other consequences of external causes

Persons who identified as Indigenous were separated from hospitals at approximately twice the rate of non-Indigenous peoples, for 'injury, poisoning and certain other consequences of external causes'. The rate ratio (Indigenous separation rate divided by the non-Indigenous rate) was higher for females in aggregate and for the majority of the subcategories for this ICD-10-AM chapter. Injury and poisoning accounted for more separations for males identified as Indigenous (12%) than for females identified as Indigenous (table 4.1).

In most age groups, hospitalisation rates for 'injury, poisoning and certain other consequences of external causes' were higher for Indigenous peoples, with large differences for all adult age groups to age 75.

The largest differences were apparent for the 25–45 age groups. Males generally had higher rates than females. However, for all adult age groups Indigenous females generally had higher rates than non-Indigenous persons, and the female rate ratio was higher than the male rate ratio for all age groups except 55–64 years of age (graph 4.7).

#### 4.7 HOSPITAL SEPARATIONS FOR INJURY/POISONING(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Injury, poisoning and certain other consequences of external causes *continued*

The ICD-10-AM codes S00–T19, referred to here as the subcategory ‘injuries’, accounted for the majority of hospital separations within the injury and poisoning chapter. After adjusting for age, Indigenous males and females were more likely to be hospitalised for every subcategory of the injury and poisoning chapter than non-Indigenous males and females (table 4.8).

4.8 AGE-STANDARDISED RATES FOR PRINCIPAL DIAGNOSIS OF INJURY/POISONING(a)

	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>			<i>rate ratio(c)</i>	<i>Separations</i>			<i>rate ratio(c)</i>
	<i>no.</i>	<i>%</i>	<i>rate(b)</i>		<i>no.</i>	<i>%</i>	<i>rate(b)</i>	
Injuries	7 072	9.8	37.0	1.9	5 222	5.3	27.2	2.5
Burns and frostbite	332	0.5	1.5	3.0	167	0.2	0.8	3.5
Poisoning	414	0.6	2.1	1.6	625	0.6	3.2	1.7
Toxic effects	166	0.2	0.8	1.6	149	0.2	0.7	2.3
External causes, trauma	214	0.3	1.2	2.8	189	0.2	0.9	2.9
Complications not elsewhere classified	617	0.9	4.8	1.4	840	0.9	6.2	2.0
Sequelae injuries, poisoning, external causes	2	—	—	4.3	1	—	—	3.7
<b>Total</b>	<b>8 817</b>	<b>12.3</b>	<b>47.5</b>	<b>1.9</b>	<b>7 193</b>	<b>7.3</b>	<b>38.9</b>	<b>2.3</b>

(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

Separations with a principal diagnosis of Injury, poisoning and certain other consequences of external causes are required by standard coding practice to also be assigned at least one code for the external cause of the injury. External causes represent the environmental events and circumstances of the cause of injury, poisoning and other adverse effects. They are intended to be used in addition to codes from other ICD-10-AM chapters to assist interpretation of the hospital episode (NCCH 1998, ICD-10-AM, 1st ed., v1, p. 423).

Table 4.9 presents information on the first reported external cause code for separations with a principal diagnosis of injury and poisoning. It should be noted that the first reported external cause code will not necessarily relate to the principal diagnosis.

Males identified as Indigenous were eight times more likely than non-Indigenous males to have ‘assault’ as the first reported cause of injury or poisoning. The hospital separation rate for Indigenous females recorded for ‘assault’ is also very much higher than that recorded for non-Indigenous females. However, comparisons are complicated for females, as injuries purposely inflicted by others may be under-reported by women. ‘Intentional self-harm’ was reported at approximately twice the rate for Indigenous persons compared to non-Indigenous persons (table 4.9).

#### 4.9 AGE-STANDARDISED RATES FOR EXTERNAL CAUSES OF INJURY/POISONING(a)

	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>			<i>rate ratio(c)</i>	<i>Separations</i>			<i>rate ratio(c)</i>
	<i>no.</i>	<i>%</i>	<i>rate(b)</i>		<i>no.</i>	<i>%</i>	<i>rate(b)</i>	
Transport accidents	858	1.2	4.0	1.1	394	0.4	1.8	1.0
Accidental falls	1 453	2.0	7.9	1.4	1 018	1.0	6.4	1.1
Exposure to inanimate mechanical forces	1 187	1.6	5.6	1.3	614	0.6	2.7	2.0
Exposure to animate mechanical forces	359	0.5	1.8	1.9	151	0.2	0.7	2.1
Exposure to electric current/ smoke/animals/nature(d)	345	0.5	1.7	2.2	184	0.2	0.8	2.1
Accidental poisoning	239	0.3	1.1	1.5	280	0.3	1.3	2.0
Other accidental exposures(e)	577	0.8	3.1	1.2	374	0.4	2.1	1.7
Intentional self-harm	394	0.5	2.1	2.3	466	0.5	2.3	1.8
Assault(f)	1 949	2.7	10.7	7.9	2 103	2.1	10.5	36.5
Complications of medical and surgical care	635	0.9	5.0	1.4	844	0.9	6.2	2.0
Other external causes	153	0.2	0.8	2.9	141	0.1	0.7	3.4
<b>Total(g)</b>	<b>8 817</b>	<b>12.2</b>	<b>47.5</b>	<b>1.9</b>	<b>7 193</b>	<b>7.3</b>	<b>38.9</b>	<b>2.3</b>

(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

(d) Includes exposure to electric current, radiation, extreme ambient air temperature and pressure, smoke, fire, flames, forces of nature; and contact with heat and hot substances, and with venomous animals and plants.

(e) Includes overexertion, travel and privation; and accidental exposure to other and unspecified factors.

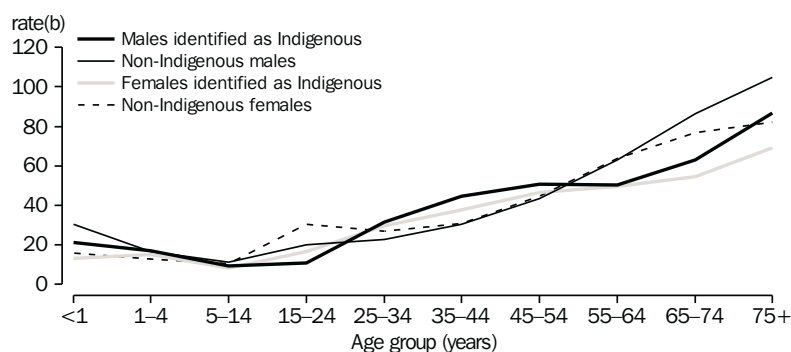
(f) These figures should be interpreted with caution, as injuries purposely inflicted by others may be under-reported by women.

(g) Includes injuries where no external cause was reported.

#### Digestive diseases

In 1999–2000, diseases of the digestive system were the main reason for hospitalisation in 7% of all male separations identified as Indigenous and 5% of all female separations identified as Indigenous (table 4.1). The Indigenous male and female rates showed similar patterns across various life stages as did the non-Indigenous male and female rates (graph 4.10).

#### 4.10 HOSPITAL SEPARATIONS FOR DIGESTIVE DISEASES(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Digestive diseases *continued*

Across all 'digestive diseases' in aggregate and for several of the subcategories relating to digestive diseases there were lower rates of hospital separations in the Indigenous population than in the non-Indigenous population (table 4.11). Persons who identified as Indigenous had higher rates of hospitalisation for 'diseases of the liver' (three times as high for males and four times as high for females), 'disorders of the gallbladder, biliary tract and pancreas' and for 'diseases of the peritoneum'.

4.11 AGE-STANDARDISED RATES FOR DIGESTIVE DISEASES(a)

	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>		<i>rate</i>		<i>Separations</i>		<i>rate</i>	
	no.	%	rate(b)	ratio(c)	no.	%	rate(b)	ratio(c)
Diseases of oral cavity, salivary glands, jaw	822	1.1	3.1	0.7	927	0.9	3.6	0.6
Diseases of oesophagus, stomach, duodenum	1 153	1.6	9.5	1.0	1 015	1.0	7.4	0.8
Diseases of appendix	271	0.4	1.2	0.9	308	0.3	1.4	1.2
Hernia	403	0.6	2.9	0.5	200	0.2	1.3	0.7
Noninfective enteritis, colitis	187	0.3	1.5	0.8	313	0.3	2.5	1.0
Other diseases of intestines	459	0.6	4.2	0.6	498	0.5	4.3	0.6
Diseases of peritoneum	37	0.1	0.3	2.3	75	0.1	0.5	2.0
Diseases of the liver	263	0.4	1.9	3.2	193	0.2	1.3	4.0
Disorders of gallbladder, biliary tract & pancreas	1 051	1.5	7.4	2.8	1 247	1.3	7.8	1.6
Other diseases of the digestive system	283	0.4	2.4	1.3	213	0.2	1.5	0.9
<b>Total</b>	<b>4 929</b>	<b>6.9</b>	<b>34.3</b>	<b>1.0</b>	<b>4 989</b>	<b>5.1</b>	<b>31.5</b>	<b>0.9</b>

(a) Data are for the financial year 1999–2000.

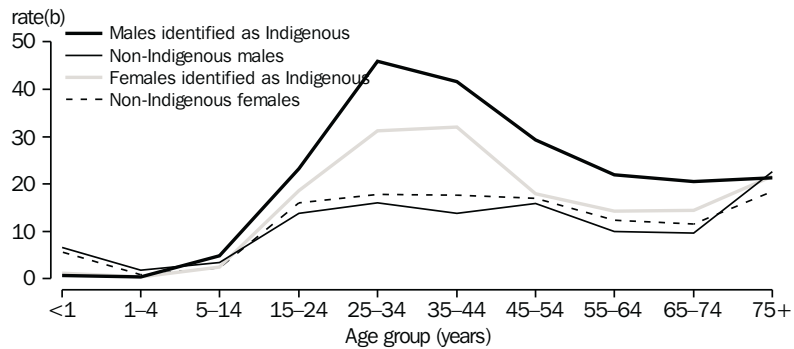
(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

Mental and behavioural disorders

'Mental and behavioural disorders' were the principal diagnosis for 6% of separations for male patients identified as Indigenous, compared to 3% of separations for Indigenous females. Males identified as Indigenous were twice as likely to be hospitalised for 'mental and behavioural disorders' as non-Indigenous males, and Indigenous females were 1.4 times more likely to be hospitalised than non-Indigenous females (table 4.1). Between the ages of 15–74, Indigenous males and females had higher rates of hospitalisation for 'mental and behavioural disorders' than the non-Indigenous population (graph 4.12).

#### 4.12 HOSPITAL SEPARATIONS FOR MENTAL AND BEHAVIOURAL DISORDERS(a)



(a) Data are for the financial year 1999–2000.  
 (b) Per 1,000 population.

For persons hospitalised for 'mental and behavioural disorders due to psychoactive substance use', Indigenous hospitalisation rates were higher than the rates recorded for the non-Indigenous population (4.8 times as high for Indigenous males and 3.7 times as high for Indigenous females) (table 4.13). 'Mental disorders due to alcohol use' accounted for 35% of separations for males identified as Indigenous, and 19% of separations for females identified as Indigenous, compared to 13% for non-Indigenous males, and 6% for non-Indigenous females.

#### 4.13 AGE-STANDARDISED RATES FOR MENTAL AND BEHAVIOURAL DISORDERS(a)

	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>		<i>rate ratio(c)</i>		<i>Separations</i>		<i>rate ratio(c)</i>	
	no.	% rate(b)	rate ratio(c)	no.	% rate(b)	rate ratio(c)		
Organic mental disorders	106	0.1	1.4	2.3	61	0.1	0.8	1.6
Disorders, psychoactive substance use	1 980	2.8	12.2	4.8	943	1.0	5.1	3.7
Schizophrenia	1 076	1.5	5.7	2.2	595	0.6	3.2	1.7
Mood and neurotic disorders	830	1.2	5.0	1.0	1 459	1.5	8.3	1.1
Other mental disorders	346	0.5	1.4	1.3	243	0.2	1.0	0.6
<b>Total</b>	<b>4 338</b>	<b>6.0</b>	<b>25.7</b>	<b>2.2</b>	<b>3 301</b>	<b>3.4</b>	<b>18.4</b>	<b>1.4</b>

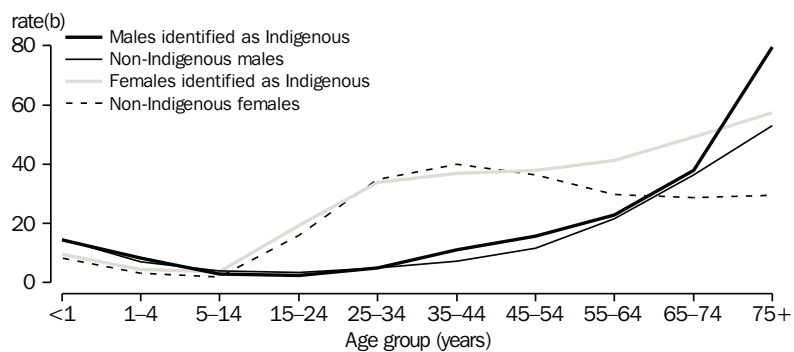
(a) Data are for the financial year 1999–2000.  
 (b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.  
 (c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

Genitourinary system diseases

In 1999–2000, ‘genitourinary system diseases’ were the main reason for hospitalisation in 2% of separations for males identified as Indigenous and almost 5% of separations for females identified as Indigenous (table 4.1). ‘Care involving dialysis’ is not included in this ICD-10-AM chapter.

Separation rates across age groups were similar for Indigenous males to those for non-Indigenous males hospitalised, except for those aged 75 years and over where the Indigenous rate rose more markedly. Rates of hospitalisation due to ‘genitourinary system diseases’ were generally similar for females in age groups under 54 years. In later year age groups, the Indigenous rate increased, while the rate for non-Indigenous females decreased (graph 4.14).

4.14 HOSPITAL SEPARATIONS FOR GENITOURINARY SYSTEM DISEASES(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Males and females identified as Indigenous were hospitalised more frequently than non-Indigenous patients for ‘genitourinary system diseases’, reflecting the higher rates of hospitalisation for these diseases of older Indigenous patients when compared with non-Indigenous patients. The rate for Indigenous male separations for ‘renal failure’ was 4.9 times as high as for non-Indigenous male separations. The rate for Indigenous female separations was 6.5 times as high as non-Indigenous female separations (table 4.15).

#### 4.15 AGE-STANDARDISED RATES FOR GENITOURINARY SYSTEM DISEASES(a)

	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>			<i>rate ratio(c)</i>	<i>Separations</i>			<i>rate ratio(c)</i>
	<i>no.</i>	<i>%</i>	<i>rate(b)</i>		<i>no.</i>	<i>%</i>	<i>rate(b)</i>	
Glomerular diseases	104	0.1	0.4	2.5	88	0.1	0.4	3.1
Renal failure	301	0.4	3.3	4.9	328	0.3	3.0	6.5
Other disorders of the genitourinary system	681	0.9	6.2	1.0	1 627	1.7	11.7	2.2
Disorders of the male genital organs	453	0.6	3.7	0.8	..	..	..	..
Disorders of the breast	12	—	0.1	0.4	238	0.2	1.3	1.0
Disorders of the female genital organs	..	..	..	..	2 200	2.2	12.2	0.7
<b>Total</b>	<b>1 551</b>	<b>2.2</b>	<b>13.7</b>	<b>1.2</b>	<b>4 481</b>	<b>4.6</b>	<b>28.6</b>	<b>1.2</b>

(a) Data are for the financial year 1999–2000.

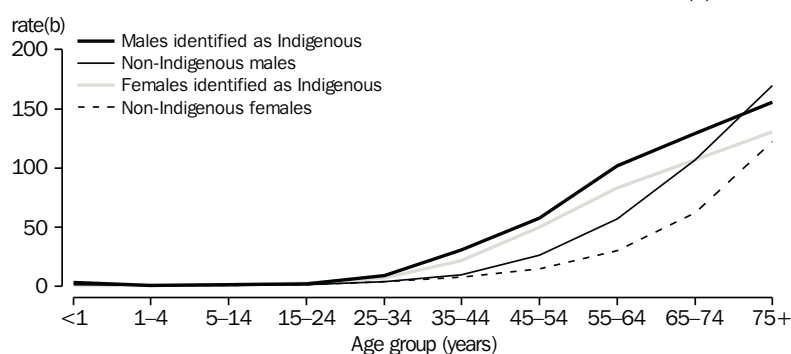
(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

#### Circulatory system diseases

Diseases of the circulatory system were the main reason for hospitalisation in nearly 5% of separations for males identified as Indigenous and 3% of separations for females identified as Indigenous (table 4.1). Indigenous males up until 74 years of age had higher separation rates than the non-Indigenous population. Indigenous females from one year of age had higher separation rates than the non-Indigenous population, with the difference for both males and females most marked from age 25 years (graph 4.16).

#### 4.16 HOSPITAL SEPARATIONS FOR CIRCULATORY SYSTEM DISEASES(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Persons who identified as Indigenous experienced higher separation rates for most types of ‘circulatory system diseases’ than the non-Indigenous population. The rate for Indigenous males for ‘rheumatic disease’ was 6.9 times as high as separations for non-Indigenous males. The separation rate for Indigenous females was 8.2 times as high as for non-Indigenous females. For the most prevalent type of circulatory system disease (ischaemic heart disease) the Indigenous separation rates were 1.5 times as high for males and 2.5 as high for females (table 4.17).

#### 4.17 AGE-STANDARDISED RATES FOR CIRCULATORY SYSTEM DISEASES(a)

	Indigenous males				Indigenous females			
	Separations			rate ratio(c)	Separations			rate ratio(c)
	no.	%	rate(b)		no.	%	rate(b)	
Rheumatic disease	113	0.2	0.5	6.9	182	0.2	0.9	8.2
Hypertensive disease	165	0.2	1.7	5.8	266	0.3	2.4	5.9
Ischaemic heart disease	1 478	2.1	16.2	1.5	1 177	1.2	11.5	2.5
Other heart disease	960	1.3	11.4	1.8	890	0.9	9.2	2.0
Cerebrovascular disease	288	0.4	3.7	1.6	231	0.2	2.7	1.7
Other diseases of the circulatory system	386	0.5	4.0	0.7	422	0.4	4.1	0.8
<b>Total</b>	<b>3 390</b>	<b>4.7</b>	<b>37.5</b>	<b>1.5</b>	<b>3 168</b>	<b>3.2</b>	<b>30.8</b>	<b>1.9</b>

(a) Data are for the financial year 1999–2000.

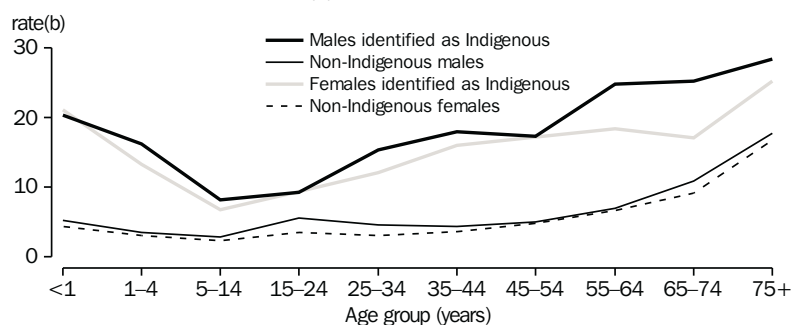
(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

#### Diseases of the skin and subcutaneous tissue

'Diseases of the skin and subcutaneous tissue' were the main reason for hospitalisation in almost 4% of separations for males identified as Indigenous and in 3% of separations for females identified as Indigenous. Patients identified as Indigenous had rates of hospitalisation for 'diseases of the skin and subcutaneous tissue' which were about three times the rate of separation recorded for non-Indigenous patients (table 4.1). Male and female rates were similar within each of the Indigenous and non-Indigenous population groups, but with Indigenous male and Indigenous female rates higher than the comparative male or female non-Indigenous rates across all age groups (graph 4.18).

#### 4.18 HOSPITAL SEPARATIONS FOR DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Infections were the most significant component of 'diseases of skin and subcutaneous tissue' for males and females identified as Indigenous, accounting for over 80% of this disease grouping. Separation rates for 'infections of the skin and subcutaneous tissue' were 4.9 times as high for males identified as Indigenous and 6.3 times as high for females identified as Indigenous (table 4.19).

#### 4.19 AGE-STANDARDISED RATES FOR DISEASES OF SKIN AND SUBCUTANEOUS TISSUE(a)

	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>				<i>Separations</i>			
	no.	%	rate(b)	rate ratio(c)	no.	%	rate(b)	rate ratio(c)
Infections of skin and subcutaneous tissue	2 313	3.2	12.9	4.9	2 049	2.1	10.7	6.3
Dermatitis and eczema	40	0.1	0.1	0.6	55	0.1	0.3	1.2
Urticaria and erythema	28	—	0.1	1.2	32	—	0.1	1.2
Other disorders of the skin	387	0.5	3.0	1.1	381	0.4	2.6	1.0
<b>Total</b>	<b>2 768</b>	<b>3.8</b>	<b>16.1</b>	<b>2.8</b>	<b>2 517</b>	<b>2.6</b>	<b>13.7</b>	<b>2.9</b>

(a) Data are for the financial year 1999–2000.

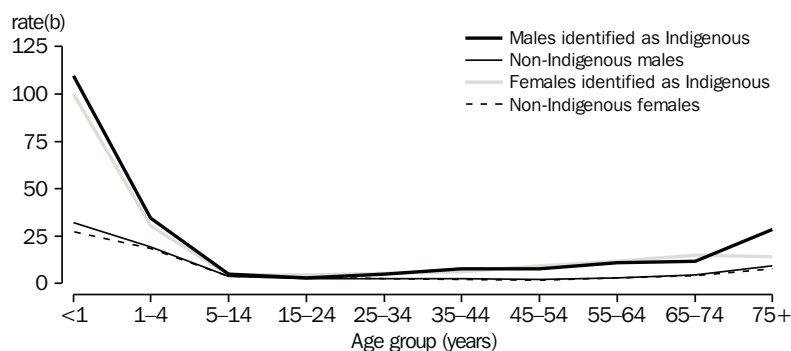
(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

#### Infectious and parasitic diseases

In 1999–2000, ‘infectious and parasitic diseases’ were the main reason for hospitalisation in 3% of all separations for males identified as Indigenous and 2% of all separations for females identified as Indigenous (table 4.1). Hospital separation rates for both male and female Indigenous patients were higher than the respective non-Indigenous rates for all age groups. The largest differences in rates were observed in children aged less than 1 year (graph 4.20). Among patients identified as Indigenous, ‘infectious and parasitic diseases’ were the main reason for hospitalisation in 13% of male infant and 14% of female infant separations. Among Indigenous children aged between 1–4 years, ‘infectious and parasitic diseases’ were the main reason for hospitalisation in 14% of male separations and 15% of female separations.

#### 4.20 HOSPITAL SEPARATIONS FOR INFECTIOUS AND PARASITIC DISEASES(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Infectious and parasitic diseases *continued*

The separation rate for Indigenous persons was more than twice that of the non-Indigenous population for infectious and parasitic diseases, with males and females identified as Indigenous being hospitalised at higher rates for most of the infectious and parasitic diseases identified in table 4.21. Intestinal infectious diseases were a large contributor to Indigenous separations for infectious and parasitic diseases, accounting for 51% of Indigenous male and female separations.

4.21 AGE-STANDARDISED RATES FOR INFECTIOUS AND PARASITIC DISEASES(a)

	Indigenous males				Indigenous females			
	Separations			rate ratio(c)	Separations			rate ratio(c)
	no.	%	rate(b)		no.	%	rate(b)	
Intestinal infectious disease	1 240	1.7	3.9	2.2	1 184	1.2	4.1	2.2
Other bacterial diseases	290	0.4	2.4	3.3	305	0.3	2.3	4.2
Infections, sexual transmission	40	0.1	0.2	2.8	108	0.1	0.5	3.9
Viral infections	197	0.3	0.9	1.2	163	0.2	0.6	1.0
Other viral infections	282	0.4	1.0	1.1	262	0.3	1.1	1.2
Other infectious diseases	318	0.4	1.5	5.7	301	0.3	1.4	6.1
Remainder infectious & parasitic diseases	109	0.2	0.9	6.8	56	0.1	0.3	4.8
<b>Total</b>	<b>2 476</b>	<b>3.4</b>	<b>10.8</b>	<b>2.3</b>	<b>2 379</b>	<b>2.4</b>	<b>10.3</b>	<b>2.3</b>

(a) Data are for the financial year 1999–2000.

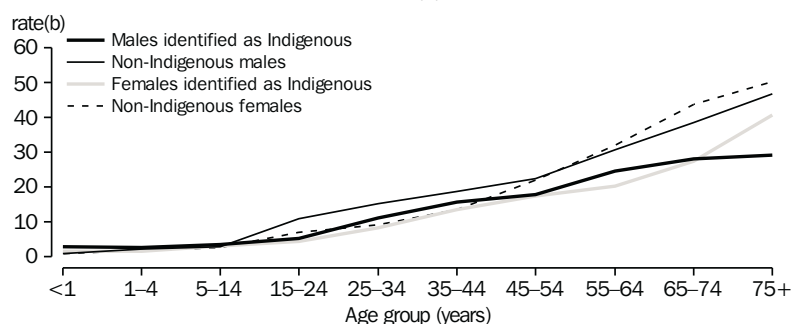
(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

Diseases of the musculoskeletal system and connective tissues

‘Diseases of the musculoskeletal system and connective tissues’ were the main reason for hospitalisation in 2% of separations for males and females identified as Indigenous (table 4.1). Indigenous males and females experienced lower hospital separation rates than the non-Indigenous population in most age groups (graph 4.22).

4.22 HOSPITAL SEPARATIONS FOR DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUES(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Diseases of the musculoskeletal system and connective tissues *continued*

Males and females identified as Indigenous were less likely than non-Indigenous persons to be hospitalised for each of the subcategories comprising conditions of the musculoskeletal system and connective tissues except 'osteopathies and chondropathies' (diseases of the bone and cartilage) (table 4.23).

4.23 AGE-STANDARDISED RATES FOR MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUES(a)

	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>		<i>rate ratio(c)</i>		<i>Separations</i>		<i>rate ratio(c)</i>	
	no.	% rate(b)	rate ratio(c)	no.	% rate(b)	rate ratio(c)		
Arthropathies/connective tissue disorders	960	1.3 6.9	0.8	746	0.8 5.8	0.8		
Dorsopathies/soft tissue disorders	551	0.8 4.5	0.7	678	0.7 4.8	0.8		
Osteopathies and chondropathies	241	0.3 1.5	1.1	223	0.2 1.3	1.0		
<b>Total(d)</b>	<b>1 762</b>	<b>2.4 13.0</b>	<b>0.7</b>	<b>1 655</b>	<b>1.7 12.0</b>	<b>0.8</b>		

(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

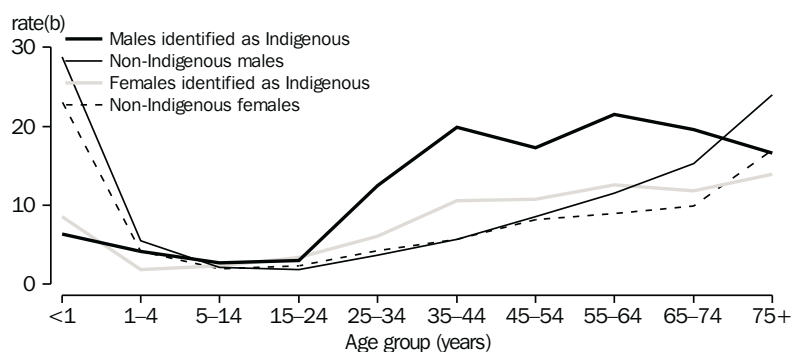
(c) Rate ratio is equal to rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

(d) Includes 'other musculoskeletal system/tissue disorders'.

Nervous system diseases

In 1999–2000, males and females identified as Indigenous had higher hospitalisation rates for 'nervous system diseases' (table 4.25). Diseases of the nervous system were the main reason for hospitalisation in over 2% of separations for males identified as Indigenous and over 1% of separations for females identified as Indigenous (table 4.1). Indigenous children to age 4 years had lower separation rates for 'nervous system diseases' than non-Indigenous children. Between 5–74 years Indigenous patients had higher separation rates when compared with equivalent non-Indigenous rates (graph 4.24).

4.24 HOSPITAL SEPARATIONS FOR NERVOUS SYSTEM DISEASES(a)



(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population.

Males and females identified as Indigenous had higher hospitalisation rates for 'nervous system diseases' (table 4.25).

#### 4.25 AGE-STANDARDISED RATES FOR NERVOUS SYSTEM DISEASES(a)

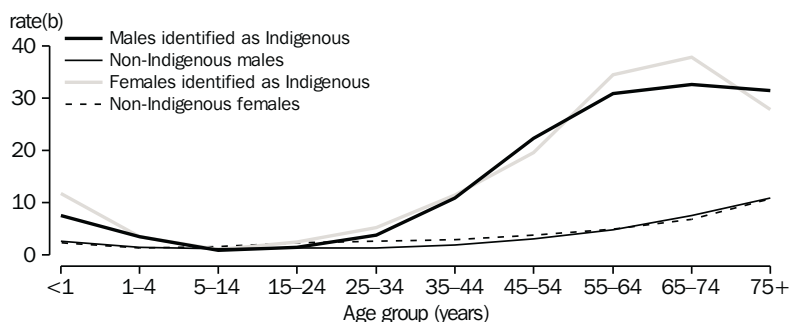
	<i>Indigenous males</i>				<i>Indigenous females</i>			
	<i>Separations</i>			<i>rate ratio(c)</i>	<i>Separations</i>			<i>rate ratio(c)</i>
	<i>no.</i>	<i>%</i>	<i>rate(b)</i>		<i>no.</i>	<i>%</i>	<i>rate(b)</i>	
Meningitis/encephalitis	42	0.1	0.2	2.1	40	—	0.1	2.1
Other nervous system diseases	1 709	2.4	11.9	1.8	1 143	1.2	7.3	1.3
<b>Total</b>	<b>1 751</b>	<b>2.4</b>	<b>12.0</b>	<b>1.8</b>	<b>1 183</b>	<b>1.2</b>	<b>7.4</b>	<b>1.3</b>

(a) Data are for the financial year 1999–2000.  
(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.  
(c) Rate ratio is equal to rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

Endocrine, nutritional and metabolic disorders

‘Endocrine, nutritional and metabolic disorders’ were the main reason for hospitalisation in 2% of separations for males and females identified as Indigenous (table 4.1). Separation rates of Indigenous males and females for ‘endocrine, nutritional and metabolic disorders’ were higher than for the non-Indigenous population in all age groups except 5–14 year olds (graph 4.26).

#### 4.26 HOSPITAL SEPARATIONS FOR ENDOCRINE, NUTRITIONAL AND METABOLIC DISORDERS(a)



(a) Data are for the financial year 1999–2000.  
(b) Per 1,000 population.

Patients identified as Indigenous had hospitalisation rates for ‘endocrine, nutritional and metabolic disorders’ four times as high as non-Indigenous people (table 4.1). ‘Diabetes mellitus’ accounted for 63% of separations within this chapter, for patients identified as Indigenous. There were seven and eight times as many separations for ‘diabetes mellitus’ for males and females identified as Indigenous, respectively, than for non-Indigenous males and females (table 4.27). The principal diagnosis ‘care involving dialysis’ and ‘renal failure’ are associated with diabetes, and data for these are presented elsewhere — see table 4.1 and 4.15 respectively. Separations with a principal diagnosis of ‘gestational diabetes’ are contained within the subcategory ‘other maternal disorders related to pregnancy’ in table 4.4.

4.27 AGE-STANDARDISED RATES FOR ENDOCRINE, NUTRITIONAL AND METABOLIC DISORDERS(a)

	Indigenous males				Indigenous females			
	Separations		rate(b)	rate ratio(c)	Separations		rate(b)	rate ratio(c)
	no.	%			no.	%		
Disorders of thyroid gland	8	—	0.1	1.1	60	0.1	0.5	1.1
Diabetes mellitus								
Diabetes type 1	202	0.3	1.5	2.5	267	0.3	1.9	3.4
Diabetes type 2	652	0.9	6.7	10.2	658	0.7	5.9	12.4
Total (includes 'other diabetes')	863	1.2	8.3	6.6	944	1.0	7.9	7.6
Other metabolic or nutritional disorders	430	0.6	3.2	2.2	576	0.6	4.1	2.1
<b>Total</b>	<b>1 301</b>	<b>1.8</b>	<b>11.7</b>	<b>4.2</b>	<b>1 580</b>	<b>1.6</b>	<b>12.4</b>	<b>3.7</b>

(a) Data are for the financial year 1999–2000.

(b) Per 1,000 population. Directly age-standardised using the total Australian population as at 30 June 1991.

(c) Rate ratio is equal to the rate of separations identified as Indigenous divided by the rate of non-Indigenous separations.

PRINCIPAL DIAGNOSIS BY STATE AND TERRITORY OF USUAL RESIDENCE

Under-identification of Indigenous hospital-admitted patients generally, and variability in data quality across jurisdictions, means that comparisons should be undertaken with caution. Such comparisons are useful in indicating patterns of similarity or difference between jurisdictions, but are indicative only (see *Australian Hospital Statistics 1999–00* for more information).

In 1999–2000, the most common ICD-10-AM chapter for principal diagnosis in each jurisdiction, for both males and females identified as Indigenous, was 'factors influencing health status and contact with health services'. In the Northern Territory, over half of the separations for patients recorded as Indigenous were coded to this chapter (table 4.28 and table 4.29). 'Factors influencing health status and contact with health services' includes 'care involving dialysis', which accounted for 28% of Indigenous male separations and 30% of Indigenous female separations (table 4.1).

For males identified as Indigenous, the proportion of separations reported in each ICD-10-AM chapter was similar for each jurisdiction. The ICD-10-AM chapter 'Injury, poisoning and certain other consequences of external causes' was the second most common principal diagnosis and 'respiratory diseases' the third (table 4.28). For females identified as Indigenous, 'pregnancy, childbirth and the puerperium' were the second most common principal diagnosis, and 'respiratory diseases' the third, except in Queensland and Victoria, where injury/poisoning and 'digestive diseases', respectively, were slightly more common (table 4.29).

#### 4.28 MOST COMMON PRINCIPAL DIAGNOSES, MALES IDENTIFIED AS INDIGENOUS(a)(b)(c)

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Northern Territory(d)	Australia(e)
	%	%	%	%	%	%	%
Factors influencing health status(f)	24	19	26	36	30	52	32
Injury/poisoning	12	12	15	12	13	9	12
Respiratory diseases	11	10	12	10	13	9	11
Digestive diseases	9	10	8	7	7	3	7
Mental/behavioural disorders	9	10	6	7	6	2	6
Symptoms/signs not elsewhere classified	6	6	5	4	5	3	5
Other principal diagnoses(g)	29	33	29	24	27	22	27
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

(a) Data are for the financial year 1999–2000, based on place of usual residence. Data for Tasmania and the Australian Capital Territory are not presented due to relatively small numbers. 'Most common principal diagnoses' are based on ICD-10-AM chapters. See Appendix A for a full listing.

(b) It is likely that the quality of identification of Indigenous patients varies by State and Territory, although the level of under-identification is unknown for most hospitals.

(c) No data were available for a number of small private and private free-standing day hospital facilities.

(d) Public hospitals only.

(e) Includes Tasmania and the Australian Capital Territory.

(f) Includes hospitalisation for care involving dialysis, chemotherapy, radiotherapy and other reasons for contact that are not a disease or injury classified elsewhere.

(g) Includes all other ICD-10-AM chapters combined.

#### 4.29 MOST COMMON PRINCIPAL DIAGNOSES, FEMALES IDENTIFIED AS INDIGENOUS(a)(b)(c)

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Northern Territory(d)	Australia(e)
	%	%	%	%	%	%	%
Factors influencing health status(f)	24	31	31	33	33	51	34
Pregnancy/childbirth/puerperium	19	17	17	15	15	13	16
Respiratory diseases	9	7	7	7	10	6	8
Injury/poisoning	6	6	8	7	9	6	7
Digestive diseases	7	8	6	5	5	3	5
Genitourinary system diseases	5	5	5	5	4	3	5
Other principal diagnoses(g)	30	26	26	28	25	18	25
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

(a) Data are for the financial year 1999–2000, based on place of usual residence. Data for Tasmania and the Australian Capital Territory are not presented due to relatively small numbers. 'Most common principal diagnoses' are based on ICD-10-AM chapters. See Appendix A for a full listing.

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(c) No data were available for a number of small private and private free-standing day hospital facilities.

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(f) Includes hospitalisation for care involving dialysis, chemotherapy, radiotherapy and other reasons for contact that are not a disease or injury classified elsewhere.

(g) Includes all other ICD-10-AM chapters combined.