

1.16 Social and emotional wellbeing

The social and emotional wellbeing of Aboriginal and Torres Strait Islander peoples expressed as a percentage by age group, age-standardised rate and ratio

Data sources

Data for this measure come from the National Aboriginal and Torres Strait Islander Health Survey, the National Aboriginal and Torres Strait Islander Social Survey, the Western Australian Aboriginal Child Health Survey, the Bettering the Evaluation and Care of Health survey, the Australian Institute of Health and Welfare (AIHW) National Hospital Morbidity Database, the AIHW National Mortality Database, the AIHW National Community Mental Health Care Database, and the AIHW National Residential Mental Health Care Database.

National Aboriginal and Torres Strait Islander Health Survey

The 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) collected information from 10,439 Indigenous Australians of all ages. This sample was considerably larger than the supplementary Indigenous samples in the 1995 and 2001 National Health Surveys (NHS). The survey was conducted in remote and non-remote areas of Australia and collected a range of information from Indigenous Australians. This included issues of health-related actions, health risk factors, health status, socioeconomic circumstances and women's health. The survey provides comparisons over time in the health of Indigenous Australians. It is planned to repeat the NATSIHS at 6-yearly intervals, with the next NATSIHS to be conducted in 2010–11. Selected non-Indigenous comparisons are available through the 2004–05 NHS.

National Aboriginal and Torres Strait Islander Social Survey

The Australian Bureau of Statistics conducted the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) between August 2002 and April 2003. The 2008 NATSISS was conducted between August 2008 and April 2009. The survey provides information about the Aboriginal and Torres Strait Islander populations of Australia for a wide range of areas of social concern including health, education, culture and labour force participation. The 2008 NATSISS included for the first time children aged under 15. The NATSISS will be conducted every 6 years with the next survey planned for 2014.

The 2008 NATSISS collected information by personal interview from 13,300 Indigenous Australians across all states and territories of Australia, including those living in remote areas. The sample covered persons aged 15 years and over who are usual residents in selected private dwellings. It collected information on a wide range of subjects including family and culture, health, education, employment, income, financial stress, housing, and law and justice.

Western Australian Aboriginal Child Health Survey

The Western Australian Aboriginal Child Health Survey (WAACHS) was a large-scale investigation into the health of 5,289 Western Australian Aboriginal and Torres Strait Islander children aged 0–17 years. The Telethon Institute for Child Health Research in conjunction with the Kulunga Research Network undertook the survey in 2001 and 2002. The survey was the first to gather comprehensive health, educational and developmental information on a population-based sample of Aboriginal and Torres Strait Islander children and their families and communities.

The survey findings were published in four volumes between June 2004 and November 2006.

Bettering the Evaluation and Care of Health survey

Information about encounters in general practice is available from the Bettering the Evaluation and Care of Health (BEACH) survey, which the AIHW Australian General Practice Statistics and Classification Unit conducts. Information is collected from a random sample of approximately 1,000 general practitioners (GPs) from across Australia each year. A sample of 100 consecutive GP-patient encounters is collected from each GP. A more detailed explanation of the BEACH methods can be found in *General practice activity in Australia 2008–09*, (Britt et al. 2009).

The number of Indigenous patients identified in the BEACH survey is likely to be underestimated because some GPs might not ask the question on Indigenous status, or the patient may choose not to identify themselves (AIHW 2002). Further detailed analyses of this issue are covered in *General practice in Australia, health priorities and policies 1998 to 2008* (Britt & Miller 2009: 101).

‘The findings of a BEACH substudy confirmed this suspected under-identification. In the data period reported here, 1.4% of patients encountered identified themselves as Indigenous. In contrast, in a BEACH substudy that asked 9,245 patients a complete set of questions about their cultural background (including Indigenous status) 2.2% (95% CI: 1.6–2.9) of respondents identified themselves as Indigenous (Britt et al. 2007). This rate is similar to the ABS estimates of Indigenous Australians as a proportion of the total population (ABS 2006).

However, the BEACH substudy included Indigenous Australians seen at Community Controlled Health Services funded through Medicare claims, and the estimate of 2.2% could have been an overestimate for the proportion of encounters that are with Indigenous patients in general practice as a whole. Deeble et al. (2008) conducted further investigations on this data and estimated that the BEACH encounter identification was an underestimate of about 10%, and that a more reliable estimate of the Indigenous population would be about 1.6% of all encounters (Deeble et al. 2008).

The findings of these studies are that some GPs are not routinely asking patients at the encounter about their Indigenous status, even when this is a variable specifically collected for each patient encountered, as it is in BEACH encounter data.’

Before the late inclusion of a ‘not stated’ category of Indigenous status in 2001–02, ‘not stated’ responses were included with non-Indigenous encounters. Since then, GP encounters for which Indigenous status was not reported have been included with encounters for non-Indigenous people under the ‘other’ category.

Data are presented for the 5-year period 2004–05 to 2008–09, during which there were 6,137 GP encounters with Aboriginal and Torres Strait Islander patients recorded, representing 1.3% of total GP encounters in the survey.

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. State and territory health departments provide information annually on the characteristics, diagnoses and care of admitted patients in public and private hospitals to the AIHW.

Data are presented for the six jurisdictions that the AIHW has assessed as having adequate identification of Indigenous hospitalisations in 2006–08 – New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory. These six jurisdictions represent approximately 96% of the Indigenous population of Australia. Data are presented by state/territory of usual residence of the patient.

In the period 2007–08, there were 276,000 hospital separations (episodes of care for admitted patients) for Aboriginal and Torres Strait Islander patients, around 3.5% of all separations. The proportion of separations of Aboriginal and Torres Strait Islander persons was higher in public hospitals (5.4% or 256,425 separations) compared with private hospitals (0.6% or 20,015 separations). Of all Aboriginal and Torres Strait Islander separations, nearly 93% occurred in public hospitals (AIHW 2009).

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 2-year period from July 2006 to June 2008. An aggregate of 2 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 additional diagnosis is a condition or complaint either coexisting with the principal diagnosis or arising during the episode of care. The term 'hospitalisation' has been used to refer to a separation which is the episode of admitted patient care. This can include a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in the change in the type of care (for example, from acute to rehabilitation). 'Separation' also means the process by which an admitted patient completes an episode of care by being discharged, dying, transferring to another hospital or changing type of care.

National Mortality Database

The National Mortality Database is a national collection of de-identified unit record level data. It comprises most of the information recorded on death registration forms and medical (cause of death) certificates, including Indigenous status. The AIHW maintains the database. Registrars of Births, Deaths and Marriages provide information on the characteristics and causes of death of the deceased and this is coded nationally by the Australian Bureau of Statistics (ABS). The medical practitioner certifying the death, or a coroner supplies information on the cause of death. The data are updated each calendar year and are presented by state/territory of usual residence rather than state/territory where death occurs.

It is considered likely that most deaths of Aboriginal and Torres Strait Islander people are registered. However, a proportion of these deceased are not reported as Aboriginal or Torres Strait Islander by the family, health worker or funeral director during the death registration process. That is, while data are provided to the ABS for the Indigenous status question for 99% of all deaths, there are concerns regarding the accuracy of the data. The funeral director does not always directly ask the Indigenous status question of relatives and friends of the deceased. Detailed breakdowns of Aboriginal and Torres Strait Islander deaths are therefore only provided for five jurisdictions – New South Wales, Queensland, South Australia, Western Australia and the Northern Territory (AIHW 2010a).

Deaths for which the Indigenous status of the deceased was not reported have been excluded from the analysis.

The ABS supplied additional revised 2007 and preliminary 2008 mortality data for this indicator from the ABS Cause of Death database. For further information see *Causes of death, Australia, 2008* (ABS 2010).

Data have been combined for the 5-year period 2004–2008 because of the small number of deaths from some conditions each year. Data have been analysed using the year of registration of death for all years. Note that the 2006 edition of this report used year of occurrence of death for all years of analysis except for the latest year of available data for which year of registration of death was used. Data published in this report may therefore differ slightly from those published in the previous edition for comparable years of data.

Community mental health care

Information on the use of community mental health services by Indigenous people is available from the AIHW National Community Mental Health Care Database (NCMHCD). The NCMHCD is a collation of data on specialised mental health services provided to non-admitted patients, in both government-operated community and hospital-based ambulatory care services. Examples include community mental health services, outpatient clinics and day clinics. Information collected in the database is a nationally agreed set of common data elements collected by service providers based on the National Minimum Data Set for Community Mental Health Care.

In 2006–2007, 4.9% of service contacts of community mental health care services were for Aboriginal and/or Torres Strait Islander peoples.

The quality of Indigenous identification in this database varies by jurisdiction. In 2006–07, Queensland, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory reported that the quality of their data was suitable for analysis.

As with hospitalisation data, service contacts for which the Indigenous status of the client was not reported have been included with hospitalisations for non-Indigenous people under the 'other' category.

Residential mental health care

Information on the use of residential mental health services by Indigenous people is available from the AIHW National Residential Mental Health Care Database (NRMHCD). The information collected in the database is a nationally agreed set of common data elements collected by service providers and based on the National Minimum Data Set for Residential Mental Health Care.

The quality of Indigenous identification in this database varies by jurisdiction. In 2006–07 there were no residential mental health care services in Queensland.

As with hospitalisation data, service contacts for which the Indigenous status of the client was not reported have been included with hospitalisations for non-Indigenous people under the 'other' category.

Analyses

Age-standardised rates and ratios have been used for this indicator as a measure of the Indigenous population relative to other Australians. Ratios of this type illustrate differences

between the rates among Indigenous people and those of other Australians, taking into account differences in age distributions.

Self-reported prevalence

Self-reported data on the social and emotional wellbeing of Aboriginal and Torres Strait Islander people are available from the 2008 NATSISS, 2004–05 NATSIHS and the 2002 NATSISS. Data from these three surveys are outlined below.

Psychological distress

Five questions from the Kessler Psychological Distress Scale were used to measure psychological distress in the 2008 NATSISS. The responses to these five psychological distress items were scored and summed to create a 'Kessler-5' (K5) psychological distress score.

As shown in Table 1.16.1, overall, 67% of Indigenous people reported low/moderate psychological distress levels and 32% reported feelings associated with high/very high levels of psychological distress. Indigenous females were more likely than Indigenous males to report high/very high levels of distress (35% and 28%, respectively).

Table 1.16.1: Proportion of Indigenous people aged 18 years and over who reported psychological distress, by level of psychological distress, by demographic characteristics, 2008

Demographic characteristics	Low/ moderate	High/ very high	Total ^(a)
	Per cent		
Sex			
Male	70.0	27.8	100.0
Female	63.8	35.2	100.0
Age			
18–24 years	64.9	32.9	100.0
25–34 years	68.4	30.6	100.0
35–44 years	66.4	32.4	100.0
45–54 years	65.4	33.1	100.0
55 years and over	68.7	29.0	100.0
Remoteness			
Non-remote	66.5	32.5	100.0
Remote	67.4	29.3	100.0
Total^(a)	66.7	31.7	100.0
Total no. of Indigenous people^(a)	194,112	92,225	290,937

(a) Includes missing responses.

Source: AIHW analysis of the 2008 NATSISS.

Psychological distress by age and remoteness

By using data from both the 2004–05 NATSIHS and the 2004–05 NHS, the level of psychological distress among Indigenous and non-Indigenous Australians can be compared.

- After adjusting for age differences between the Indigenous and non-Indigenous populations, Indigenous Australians were twice as likely as non-Indigenous Australians to report high or very high levels of psychological distress (Table 1.16.2).

- Across all age groups, with the exception of the age group 18–24 years, the rate of distress for Indigenous Australians was at least twice the non-Indigenous rate (Table 1.16.2).
- Differences by Indigenous status were observed for each of the three remoteness categories for which there were data, with the largest difference observed for those in *Outer regional* areas, where 2.3 Indigenous adults reported high/very high psychological distress levels for every one non-Indigenous adult who reported the same level of psychological distress (Table 1.16.3).

Table 1.16.2: Number and proportion of people aged 18 years and over who reported high or very high levels of psychological distress, by Indigenous status, by age, 2004–05

Age group	Indigenous		Non-Indigenous		Rate ratio ^(b)
	Number	Per cent ^(a)	Number	Per cent ^(a)	
18–24 years	14,727	26.0	299,556	16.1	1.6
25–34 years	18,935	27.1	338,165	12.2	2.2
35–44 years	17,231	29.2	389,503	13.4	2.2
45–54 years	11,656	29.4	369,117	13.6	2.2
55 years and over	7,620	23.0	528,206	11.7	2.0
<i>Total</i>	<i>70,168</i>	<i>26.6</i>	<i>1,924,547</i>	<i>13.1</i>	<i>2.0</i>
Total no. of people^(c)	258,297	..	14,753,256	..	..

(a) The rates for total persons were directly age-standardised, and the rates for each age group are crude rates.

(b) Rate ratio Indigenous: non-Indigenous.

(c) Includes missing responses.

Source: AIHW analysis of the 2004–05 NATSIHS and 2004 NHS.

Table 1.16.3: Number and proportion of people aged 18 years and over who reported high or very high levels of psychological distress, by Indigenous status, by remoteness^(a), 2004–05

Remoteness category	Indigenous		Non-Indigenous		Rate ratio ^(c)
	Number	Per cent ^(b)	Number	Per cent ^(b)	
Major Cities	19,871	25.4	1,301,362	12.9	2.0
Inner Regional	14,995	27.9	403,581	13.9	2.0
Outer Regional	16,383	29.0	198,968	12.8	2.3
<i>Total^(d)</i>	<i>70,168</i>	<i>26.6</i>	<i>1,924,547</i>	<i>13.1</i>	<i>2.0</i>
Total no. of people^{(d)(e)}	258,297	..	14,753,256	..	..

(a) Since the remote sample of the NHS did not have the same scope and coverage as that of the NATSIHS, comparisons of psychological distress can be made only between Indigenous and non-Indigenous people living in non-remote areas of Australia.

(b) Directly age-standardised using the Australian 2001 standard population.

(c) Rate ratio Indigenous: non-Indigenous.

(d) Includes those living in Remote or Very Remote areas.

(e) Includes missing responses.

Source: AIHW analysis of the 2004–05 NATSIHS and 2004 NHS.

Impact of psychological distress

Visits to health professional

- The majority (85%) of those who reported at least some level of psychological distress (a score of more than 5) did not see a doctor or other health professional about their feelings of distress in the 4-week period (Table 1.16.4).

- Those who did seek help saw a health professional, on average, 2.8 times during the 4 weeks before interview.
- Indigenous women were more likely than Indigenous men to have visited a health professional about their distress (17% compared with 12%, respectively).
- Those aged 55 years and over were more likely to have seen a health professional about their distress than those aged 18–24 years (23% and 8%, respectively).

Table 1.16.4: Proportion of Indigenous people aged 18 years and over who reported a level of psychological distress^{(a)(b)}, by whether saw a health professional because of psychological distress, by demographic characteristics, 2008

Demographic characteristics	Did not see a health professional	Saw a health professional (at least once)	Total ^(c)	Average number of visits in last 4 weeks
Males	87.7	12.3	100.0	2.8
Females	83.0	16.9	100.0	2.9
18 to 24 years	91.7	8.3	100.0	3.1
25 to 34 years	86.7	13.2	100.0	2.5
35 to 44 years	85.4	14.6	100.0	2.9
45 to 54 years	79.6	20.4	100.0	2.8
55 years and over	77.3	22.7	100.0	2.9
Major cities	84.2	15.8	100.0	2.9
Inner regional	84.1	15.9	100.0	2.7
Outer regional	87.4	12.4	100.0	2.5
Remote/Very remote	85.3	14.7	100.0	3.0
Total	85.2	14.8	100.0	2.8

(a) Based on the Kessler-5 (K5) measure of psychological distress. Overall levels of distress are based on frequency responses to the following five questions about feelings in the last 4 weeks: About how often did you feel nervous?; About how often did you feel without hope?; About how often did you feel restless or jumpy?; About how often did you feel everything was an effort?; and About how often did you feel so sad that nothing could cheer you up?

(b) Excludes persons whose only response(s) to K5 question(s) were 'none of the time'.

(c) Includes a small number of refusals to question about whether visited a health professional.

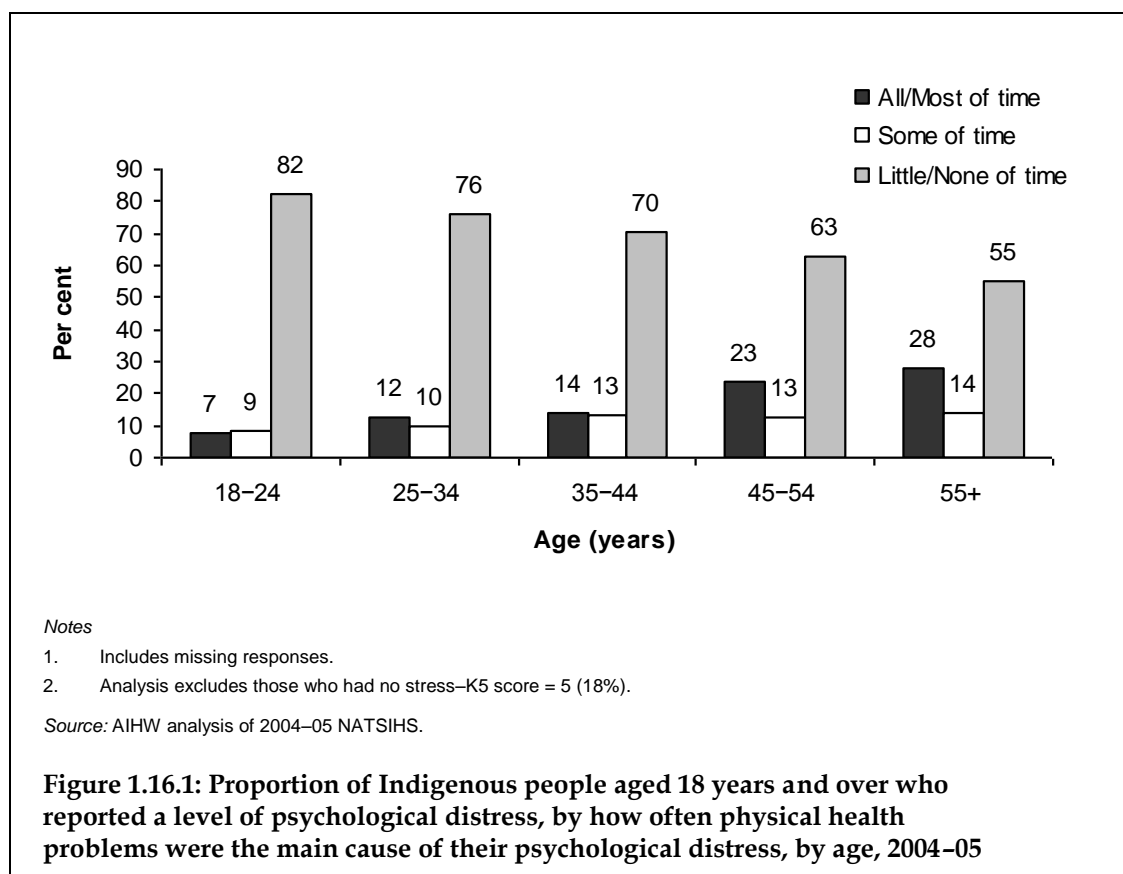
Source: ABS and AIHW analysis of 2008 NATSISS.

Relationship between physical and mental health

Of those who had indicated a level of psychological distress in the previous 4 weeks, 15% said that physical health problems were the main cause of their feelings all or most of the time. Thus, most of the psychological distress that Indigenous Australians reported was not an outcome of physical illness.

Although there was no significant difference by sex, there was a clear association with age – as age increased, physical health problems were more likely to be reported as the main cause of feelings of distress all or most of the time (Figure 1.16.1).

Indigenous Australians who lived in Major Cities (18%) were more likely than those who lived in Remote or Very Remote areas (11%) to indicate that physical health problems were the main cause of their feelings of distress all or most of the time.



Population characteristics

Table 1.16.5 presents the level of psychological distress for Indigenous persons aged 18 years and over by selected population characteristics.

- In 2008, a higher proportion of Indigenous persons with fair/poor health reported high/very high levels of psychological distress than Indigenous persons with excellent or very good health (52% compared with 20%).
- In Indigenous persons levels of high/very high psychological distress increased steadily with the number of stresses reported. Those who reported between 12 and 24 stressors were more likely to have high/very high levels of psychological distress (58%) than those who reported three or fewer stressors (29%).
- A higher proportion of Indigenous persons in the lowest income quintile reported high/very high levels of psychological distress than Indigenous persons in the highest income quintile (37% compared with 21%).
- Approximately 35% of Indigenous persons who were renters reported high/very high levels of psychological distress compared with 24% of Indigenous persons who were home owners.
- Indigenous persons who completed Year 9 or below as their highest year of school completed were more likely to have high/very high levels of psychological distress (37%) than persons who completed Year 12 (26%).
- Psychological distress was similar for both Indigenous persons with a non-school qualification and without a non-school qualification (31% and 32% respectively).
- Approximately 46% of Indigenous persons who were unemployed reported high/very high levels of psychological distress compared with 25% of Indigenous persons who were employed.

Table 1.16.5: Proportion of people who reported psychological distress, by level of psychological distress^(a), by selected population characteristics, Indigenous persons aged 18 years and over, 2008 (per cent)

	Low / moderate (5-11) ^(b)	High / very high (12-25)
Self-assessed health		
Excellent/very good	78.1	20.3
Good	67.3	31.2
Fair/poor	46.7	51.7
Number of stressors		
1 to 3	70.1	28.5
4 to 7	54.8	44.2
8 to 11	53.5	44.9
12 to 24	40.8	57.7
<i>Total reporting selected stressor(s)</i>	63.1	35.6
None of the selected stressors reported	80.6	17.0
Personal income		
First quintile (lowest)	59.9	37.2
Fifth quintile (highest)	78.8	20.5
Housing		
Owner/purchaser ^(c)	75.3	24.2
Renter	63.1	34.9
Educational attainment		
Highest year of school completed ^(d)		
Year 9 or below	60.4	37.1
Year 10	69.3	29.9
Year 11	64.0	35.3
Year 12	73.3	25.5
Year 12/Certificate II or above		
Has Year 12/Certificate II or above	69.8	29.4
Without Year 12/Certificate II or above	64.5	33.4
Non-school qualification		
Has a non-school qualification	68.3	31.0
Does not have a non-school qualification	65.9	32.1
Labour force status		
Employed	74.3	24.7
Unemployed	53.7	45.9
Not in the labour force	58.9	38.3
Total persons aged 18 years and over	66.7	31.7
Total persons aged 18 years and over (number)	194,115	92,225

(continued)

Table 1.16.5 (continued): Proportion of people who reported psychological distress, by level of psychological distress^(a), by selected population characteristics, Indigenous persons aged 18 years and over, 2008 (per cent)

- (a) Based on the Kessler-5 (K5) measure of psychological distress. Overall levels of distress are based on frequency responses to the following five questions about feelings in the last 4 weeks: About how often did you feel nervous?; About how often did you feel without hope?; About how often did you feel restless or jumpy?; About how often did you feel everything was an effort?; and About how often did you feel so sad that nothing could cheer you up?.
- (b) Includes persons who said they had not had any of these feelings in the last 4 weeks (score of 5).
- (c) Comprises persons living in a dwelling that was owned without a mortgage, owned with a mortgage or being purchased under a rent/buy scheme.
- (d) Excludes persons who were attending secondary school.

Source: ABS and AIHW analysis of 2008 NATSISS.

Stressors

Respondents of the 2008 NATSISS were asked to indicate which (if any) of the listed stressors they, their family and/or friends had experienced during the last 12 months.

- In 2008, approximately 79% of Indigenous people aged 18 years and over reported that they had experienced at least one stressor in the last 12 months. The most common stressors reported were the death of a family member or close friend (40%), serious illness or disability (33%), unable to get a job (23%), and alcohol-related problems (21%) (Table 1.16.6).
- The types of stressors reported by respondents differed according to remoteness area. For example, Indigenous adults who lived in *Remote* or *Very Remote* areas were more likely than other Indigenous adults to have reported a death of a family member or close friend, have alcohol related problems and gambling problems. Overall, the average number of stressors reported was similar independent of remoteness (4 to 5).

Table 1.16.6: Proportion of Indigenous people aged 18 years and over reporting stressors experienced by self, family or friends in last 12 months, by remoteness, 2008

	Major cities	Inner regional	Outer regional	Remote/ Very remote	Australia
Experienced selected stressors					
Really bad illness	36.5	30.1	27.5	24.9	30.2
Really bad disability	8.2	6.4	8.5	5.6	7.2
<i>Total illness or disability</i>	38.9	32.1	30.7	26.9	32.6
Really bad accident	11.1	7.7	8.8	11.0	9.9
Mental illness	22.1	17.8	17.8	9.8	17.1
Getting married / marriage	8.2	4.4	5.8	3.6	5.7
Pregnancy	22.2	20.4	14.5	9.9	16.9
New family member	12.8	11.2	9.7	5.5	9.9
Overcrowding at home	12.6	9.6	10.8	16.7	12.7
Getting back together with a spouse	5.3	4.4 ^(a)	4.4	3.2	4.4
Divorce or separation	11.3	10.3	12.3	6.0	10.0
Death of family member or close friend	40.2	34.7	40.6	44.9	40.4
Not able to get a job	23.6	22.7	24.6	19.3	22.5
Lost job / made redundant / sacked / retired	14.6	8.9	9.9	6.3	10.3
Started a new job / changed jobs	13.9	9.4	8.9	7.2	10.2
Pressure to fulfil cultural responsibilities	6.2	4.4	4.9	4.1	5.0
Alcohol-related problems	21.3	17.8	19.1	22.9	20.5
Drug-related problems	17.8	13.8	13.1	15.0	15.3
Gambling problems	13.0	10.2	10.2	14.0	12.1
Witness to violence	10.3	7.7	8.1	9.0	9.0
Abuse or violent crime	9.1	6.7	7.2	6.6	7.6
You, a family member or friend spent time in jail	12.9	12.9	12.3	12.9	12.8
Trouble with the police	15.1	15.0	14.2	14.3	14.7
Treated badly / discrimination	12.6	10.1	10.5	7.1	10.2
Unwelcome at child's school	2.0 ^(a)	1.5 ^(a)	1.2 ^(a)	0.6 ^(a)	1.4
<i>Total reporting stressor(s)</i>	81.9	78.8	79.7	75.0	79.0
Did not report any of the selected stressors	18.1	21.1	20.2	24.9	20.9
Total	100.0	100.0	100.0	100.0	100.0
Average number of stressors^(b)	4.9	4.3	4.3	4.2	4.5

(a) Estimate has a relative standard error between 25% and 50% and should be used with caution.

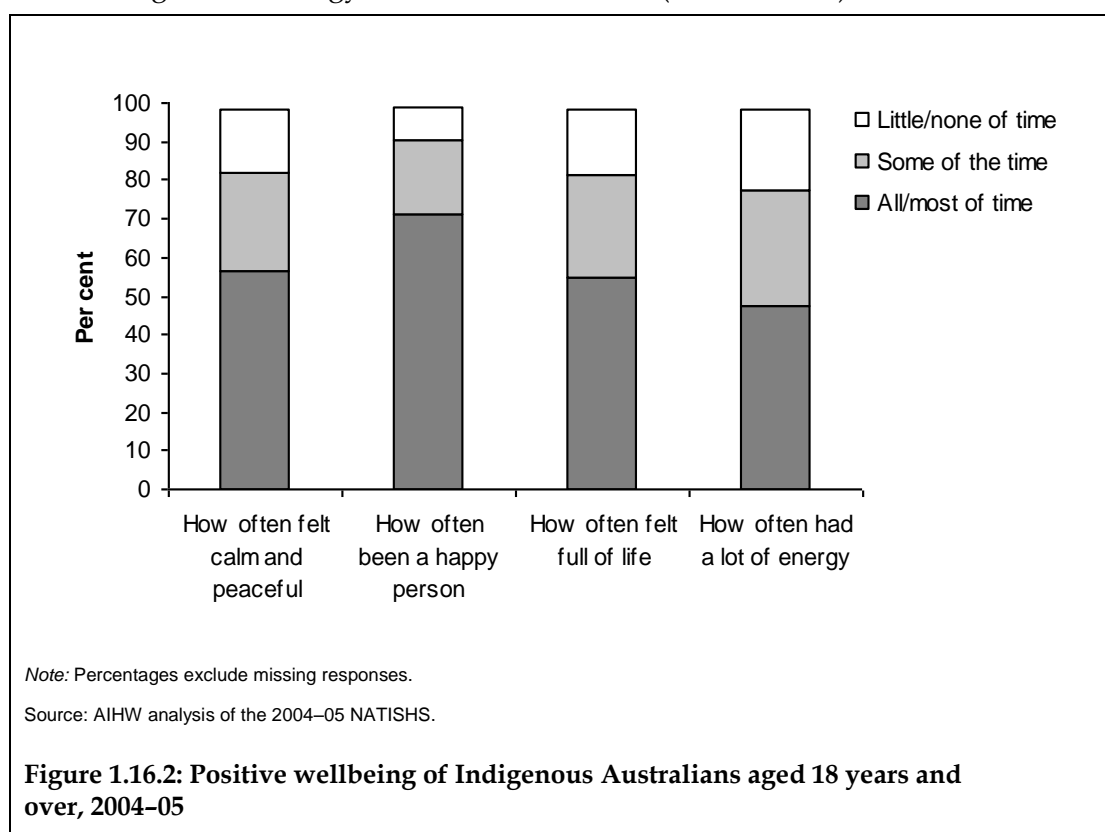
(b) Based on all persons reporting stressor(s).

Source: ABS and AIHW analysis of 2008 NATSISS.

Positive wellbeing

Four items were selected from the mental health and vitality scales of the Medical Outcome Short Form Health Survey (SF-36) to provide a measure of positive wellbeing in the 2004–05 NATSIHS. These items measured the extent to which respondents felt calm/peaceful, happy, full of life, and had lots of energy.

- More than half of the adult Indigenous population reported being happy (71%), calm and peaceful (56%) and/or full of life (55%) all or most of the time, and just under half (47%) said they had a lot of energy all or most of the time (Figure 1.16.2).
- Indigenous people aged 55 years and over were more likely than those in the younger age groups to report feeling happy and calm/peaceful all or most of the time, but the only significant difference was between this older group and those aged 25–34 years. Indigenous people aged 55 years and over were least likely to report feeling full of life or having a lot of energy all or most of the time (AIHW 2007b).



Positive life events

The 2008 NATSISS collected information about whether Indigenous children had experienced positive life events, which were defined as whether child had received an award, prize or other recognition; whether child had a positive experience with the police; or whether the child went on a holiday or trip away in the last 12 months.

- In 2008, the majority (62%) of Indigenous children aged 4 to 14 years reported experiencing a positive life event (Table 1.16.7).
- A higher proportion of Indigenous children living in non-remote areas reported experiencing a positive life event (63%) compared to Indigenous children in remote areas (58%) (Table 1.16.7).

Table 1.16.7: Indigenous children^(a) experiencing positive life events^(b), by state, remoteness and sex, 2008

	Number	Per cent
State		
New South Wales	24,886	59.0
Victoria	6,426	71.4
Queensland	26,483	66.6
South Australia	4,478	59.1
Western Australia	11,900	63.3
Tasmania/ACT	3,778	64.0
Northern Territory	8,565	53.2
Remoteness		
Remote	19,267	57.9
Non-remote	67,249	63.4
Sex		
Males	43,084	60.6
Females	43,432	63.7
Total	86,516	62.1

(a) Children aged 4 to 14 years

(b) A positive life event was defined as whether child received an award, prize or other recognition; whether child had a positive experience with the police; or whether child went on a holiday or trip away in the last 12 months.

Source: AIHW analysis of the 2008 NATSISS.

Cultural, family and community attachments

The 2008 NATSISS collected information on a range of social issues relevant to the social and emotional wellbeing of Indigenous Australians including cultural, family and community attachments.

- In 2008, approximately 47% of Indigenous people aged 18 years and over reported that they or a relative had been removed from their natural family. In addition those Indigenous people reported Moderate, High and Very high levels of psychological distress between 51% and 58% (Table 1.16.8).
- In 2008 Indigenous people aged 18 years and over who reported that they or a relative had been removed from their natural family experienced a (Table 1.16.8).
- In 2008, 72% of Indigenous Australians 35-44 years old, reported they identified with a clan or tribal group, compared to 51% of Indigenous 15-24 year olds. Of those Indigenous Australians who recognised their homelands or traditional country, 26% of Indigenous Australians lived in traditional lands (see *Indicator 2.17 Indigenous people with access to their traditional lands* for more information).

Table 1.16.8: Removal from natural family by psychological distress^(a), Indigenous persons aged 18 years and over, 2008

	Low (5 to 8) ^(b)	Moderate (9 to 11)	High (12 to 15)	Very high (16 to 25)	Total
	Per cent				
Individual removed from family (with or without relative(s))	7.1	9.6	7.5	15.1	8.8
Relative(s) only removed from family	34.0	41.0	44.8	43.1	38.6
Neither individual nor relative(s) removed from family	58.9	49.4	47.7	41.8	52.6
<i>Total fully responding persons^(c)</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Total no. of Indigenous people aged 18 years and over	130,768	63,348	56,217	36,008	290,937

(a) Based on the Kessler-5 (K5) measure of psychological distress. Overall levels of distress are based on frequency responses to the following five questions about feelings in the last 4 weeks: About how often did you feel nervous?; About how often did you feel without hope?; About how often did you feel restless or jumpy?; About how often did you feel everything was an effort?; and About how often did you feel so sad that nothing could cheer you up?.

(b) Includes persons who said they had not had any of these feelings in the last 4 weeks (score of 5).

(c) Excludes persons who did not respond to questions about removal from natural family.

Source: ABS and AIHW analysis of 2008 NATSISS.

Alcohol and other substance use

The 2004-05 NATSIHS and the 2008 NATSISS collected information on the alcohol consumption and substance use of Aboriginal and Torres Strait Islander peoples. These data are summarised below.

- In 2004-05, after adjusting for differences in age structure, Indigenous Australians were twice as likely as non-Indigenous Australians to drink at short-term risky/high-risk levels at least once a week in the last 12 months, but equally as likely to drink at long-term risky/high-risk levels in the week before the survey (15% and 14% respectively). Indigenous adults were twice as likely as non-Indigenous Australians to have abstained from alcohol consumption in the last 12 months (see *Indicator 2.20 Risky and high-risk alcohol consumption* for more information).
- In 2008, approximately 23% of Indigenous Australians aged 15 years and over reported illicit substance use in the 12 months before the survey. In addition, around 43% of Indigenous Australians aged 15 years and over reported illicit substance use at least once

in their lifetime. The substances most commonly used in the last 12 months were marijuana (17%), pain killers or analgesics (for non-medicinal use) (5%) and amphetamines or speed (4%) (see *Indicator 2.21: Drug and other substance use* for more information).

- The 2008 NATSISS reported that in non-remote areas of Australia approximately 3% of Indigenous Australians aged 15 years and over reported they had ever used heroin, 5% had ever used cocaine, 7% had ever used LSD or other synthetic hallucinogens, 9% had ever used ecstasy or designer drugs, 3% had sniffed petrol and 3% had used other inhalants (see *Indicator 2.21: Drug and other substance use* for more information).

Financial stress

The 2008 NATSISS also collected data on financial stress.

- In 2008, about half (50%) of all Indigenous persons aged 18 years and over reported they were living in households in which they could not raise \$2,000 within a week in a time of crisis (see *Indicator 2.08 Income* for more information).

Law and justice

- Approximately 19% of Indigenous people aged 18 years and over reported they had used legal services in the last 12 months, 16% had been arrested by the police in the last five years, 3.5% had been incarcerated in the last 5 years, and 24% had been a victim of physical or threatened violence in the last 12 months. After adjusting for age differences between the Indigenous and non-Indigenous populations, Indigenous Australians aged 18 years and over experienced double the victimisation rate of non-Indigenous persons (see *Indicator 2.13 Community safety* for more information).
- The National Inquiry into the Human Rights of People with Mental Illness (HREOC 1993) found that anti-social and self-destructive behaviour – often the result of lack of acceptance, choice and opportunity, the history of dispossession, assimilation, cultural and community genocide and/or undiagnosed mental and social distress – brought Indigenous people into frequent contact with the criminal justice system. Not only may mental illness and/or emotional distress cause Indigenous and other Australians to come into contact with the criminal justice system, but also incarceration may be a risk factor for mental illness (HREOC 1993). Incarceration separates Indigenous people and other nationalities from their communities and culture. However, removal from extended family or community tends to have a significant impact on Indigenous detainees. Indigenous prisoners frequently experience depressive symptoms associated with unresolved anger which can result in suicide attempts (HREOC 1993). The number of Indigenous deaths in custody is also relatively high. Of the 74 deaths in custody in Australia in 2007, 9 (12%) were Indigenous people. Indigenous Australians are imprisoned at much higher rates than non-Indigenous Australians. In 2009, the age standardised imprisonment rate for Indigenous people aged 18 years and over was 1,891 per 100,000 compared with 136 per 100,000 for non-Indigenous people (see *Indicator 2.14 Contact with criminal justice system* for more details).

Hospitalisations

Mental health related conditions include mental and behavioural disorders (such as schizophrenia and psychoactive substance use) and other mental health conditions (such as Alzheimer's disease and postnatal depression).

- For the 2-year period July 2006 to June 2008, there were 608,690 hospitalisations from mental health related conditions in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, 22,594 (3.7%) of which were hospitalisations of Aboriginal and Torres Strait Islander peoples (Table 1.16.10).
- Mental health related conditions were responsible for around 4% of all hospitalisations of Aboriginal and Torres Strait Islander Australians.
- Mental and behavioural disorders were the seventh most common group of principal diagnosis for Aboriginal and Torres Strait Islander Australians admitted to hospital, behind care involving dialysis; injury and poisoning; complications of pregnancy and childbirth; diseases of the respiratory system; diseases of the digestive system; symptoms, signs and abnormal clinical and laboratory findings.

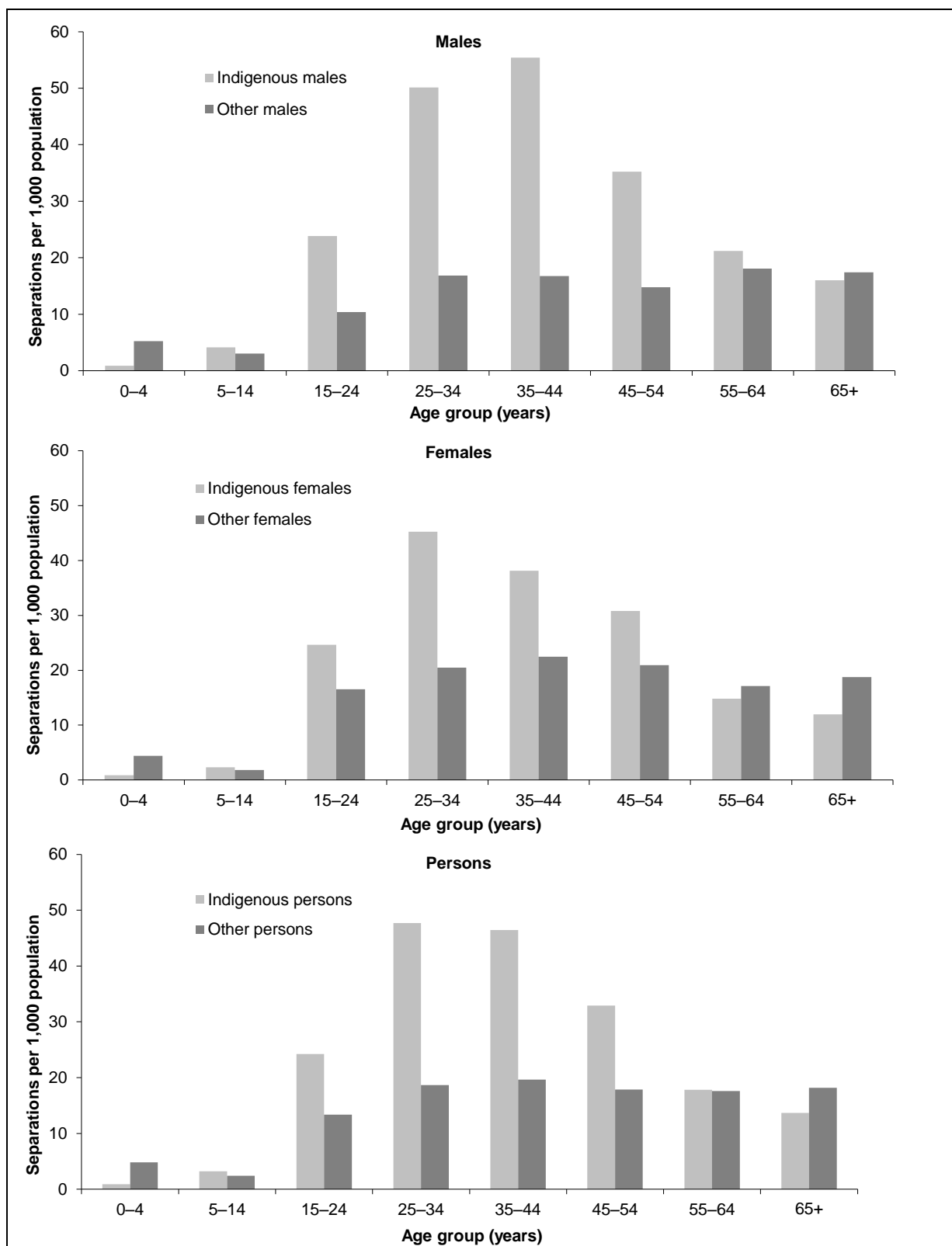
Hospitalisations by age and sex

- For the 2-year period July 2006 to June 2008, in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous males had higher hospitalisation rates for mental health related conditions than other males across all age groups from 5–14 years to 55–64 years. Indigenous females had higher hospitalisation rates for mental health related conditions than other females across all age groups from 5–14 years to 45–54 years (Table 1.16.9; Figure 1.16.3).
- The greatest difference in rates occurred in the 35–44 year age group for males, where Indigenous males were hospitalised for mental health related conditions at around three times the rate of other males. For females, the greatest difference in rates occurred in the 25–34 year age group, where Indigenous females were hospitalised at over twice the rate of other females.
- For Indigenous males, hospitalisation rates for mental health related conditions were highest among those aged 35–44 years, and for Indigenous females, rates were highest among those aged 25–34 years. Among other males, hospitalisation rates were highest for those aged 55–64 years, and 35–44 years for other females.
- Approximately 54% of Indigenous Australians hospitalised for mental health related conditions were males (12,090) and 46% were females (10,504) (Table 1.16.10).

Table 1.16.9: Age-specific hospitalisation rates (per 1,000 population) for a principal diagnosis of mental health related conditions, by Indigenous status and sex, NSW, Vic, Qld, WA, SA and NT, July 2006 to June 2008

	0-4	5-14	15-24	25-34	35-44	45-54	55-64	65+
Males								
Indigenous	0.9	4.1	23.8	50.1	55.4	35.2	21.2	16.0
Other	5.2	3.0	10.4	16.8	16.8	14.8	18.1	17.4
Females								
Indigenous	0.9	2.3	24.7	45.3	38.2	30.8	14.8	11.9
Other	4.4	1.8	16.5	20.5	22.5	20.9	17.1	18.8
Persons								
Indigenous	0.9	3.2	24.2	47.7	46.4	32.9	17.8	13.7
Other	4.8	2.4	13.4	18.7	19.6	17.9	17.6	18.2

Source: AIHW analysis of National Hospital Morbidity Database.



Source: AIHW analysis of National Hospital Morbidity Database.

Figure 1.16.3: Age-specific hospitalisation rates for a principal diagnosis of mental health related conditions, by Indigenous status and sex, NSW, Vic, Qld, WA, SA and NT, July 2006 to June 2008

Hospitalisations by state/territory

Table 1.16.10 presents hospitalisations for a principal diagnosis of mental health related conditions for the 2-year period July 2006 to June 2008 by state/territory.

- Over the period July 2006 to June 2008, in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, Indigenous males were hospitalised for mental health related conditions at 2.2 times the rate of other males and Indigenous females were hospitalised for mental health related conditions at 1.5 times the rate of other females.
- South Australia had the greatest difference in hospitalisation rates for mental health related conditions between Indigenous and other Australians, where Indigenous males and females were hospitalised at almost four times the rate of other Australians.

Table 1.16.10: Hospitalisations for principal diagnosis of mental health related conditions, by Indigenous status and sex, NSW, Vic, Qld, WA, SA and NT, Tas and ACT, July 2006 to June 2008^{(a)(b)(c)(d)(e)}

	Indigenous				Other ^(f)				Ratio ^(j)
	Number	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Number	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	
NSW									
Males	4,925	38.8	37.6	40.0	98,861	14.7	14.6	14.8	2.6*
Females	3,771	27.4	26.5	28.3	99,591	14.4	14.3	14.4	1.9*
Persons	8,696	32.8	32.0	33.5	198,458	14.5	14.4	14.6	2.3*
Vic									
Males	645	21.6	19.8	23.4	65,903	12.8	12.7	12.9	1.7*
Females	947	33.4	31.2	35.7	115,079	21.4	21.2	21.5	1.6*
Persons	1,592	27.7	26.3	29.1	180,982	17.1	17.0	17.2	1.6*
Qld									
Males	2,561	21.3	20.4	22.3	53,276	12.8	12.7	13.0	1.7*
Females	2,072	16.3	15.5	17.1	59,061	14.4	14.2	14.5	1.1*
Persons	4,633	18.7	18.1	19.4	112,337	13.6	13.5	13.7	1.4*
WA									
Males	2,002	31.7	30.1	33.3	23,947	11.6	11.5	11.8	2.7*
Females	1,907	29.3	27.9	30.7	32,028	15.7	15.5	15.8	1.9*
Persons	3,909	30.4	29.3	31.5	55,975	13.6	13.5	13.7	2.2*
SA									
Males	1,069	44.1	41.3	47.0	17,299	11.2	11.0	11.3	3.9*
Females	1,126	43.0	40.4	45.6	19,430	11.7	11.5	11.9	3.7*
Persons	2,195	43.6	41.7	45.5	36,729	11.5	11.4	11.6	3.8*
NT									
Males	888	15.8	14.6	17.1	1,001	6.4	6.0	6.9	2.5*
Females	681	10.7	9.8	11.6	614	4.5	4.1	4.9	2.4*
Persons	1,569	13.1	12.4	13.9	1,615	5.5	5.2	5.8	2.4*
NSW, Vic, Qld, WA, SA & NT^(k)									
Males	12,090	28.7	28.1	29.3	260,287	13.2	13.1	13.2	2.2*
Females	10,504	23.5	23.0	23.9	325,803	16.1	16.0	16.1	1.5*
Persons	22,594	26.0	25.6	26.3	586,096	14.6	14.6	14.6	1.8*

(continued)

Table 1.16.10(continued): Hospitalisations for principal diagnosis of mental health related conditions, by Indigenous status and sex, NSW, Vic, Qld, WA, SA and NT, Tas and ACT, July 2006 to June 2008^{(a)(b)(c)}

	Indigenous				Other ^(f)				Ratio ^(j)
	Number	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Number	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	
Tas									
Males	108	6.8	5.5	8.2	4,395	9.8	9.5	10.1	0.7*
Females	146	8.6	7.1	10.1	4,871	10.0	9.7	10.3	0.9
Persons	254	7.7	6.7	8.7	9,266	9.9	9.7	10.1	0.8*
ACT									
Males	42	12.3	7.1	17.6	1,744	5.2	4.9	5.4	2.4*
Females	53	13.3	8.7	17.9	1,891	5.5	5.3	5.8	2.4*
Persons	95	12.6	9.2	16.0	3,635	5.4	5.2	5.5	2.4*

* Represents results with statistically significant differences in the Indigenous/other comparisons at the $p < 0.05$ level.

(a) Data are from public and most private hospitals. Jurisdictional data exclude private hospitals in the Northern Territory, Tasmania and the Australian Capital Territory.

(b) Categories are based on the ICD-10-AM fifth edition (National Centre for Classification in Health 2006); ICD-10-AM codes F00–F99, G30, G47.0, G47.1, G47.2, G47.8, G47.9, 099.3, R44, R45.0, R45.1, R45.4, R48, Z00.4, Z03.2, Z04.6, Z09.3, Z13.3, Z50.2, Z50.3, Z54.3, Z61.9, Z63.1, Z63.8, Z63.9, Z65.8, Z65.9, Z71.4, Z71.5, Z76.0.

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised.

(e) Age-standardised rates for New South Wales, Victoria, Queensland, Western Australia, South Australia, the Northern Territory and Australia have been calculated using the direct method, age-standardised by 5 year age group to 75+. Age-standardised rates for Tasmania and the Australian Capital Territory have been calculated using the direct method, age-standardised by 5 year age group to 65+.

(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.

(k) New South Wales, Victoria, Western Australia, South Australia, the Northern Territory and Queensland are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Hospitalisation data for these six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

Notes

1. Rates for Indigenous are calculated using population estimates based on the 2006 Census (Series B).

2. Care types 7.3, 9 & 10 (newborn – unqualified days only; organ procurement; hospital boarder) excluded from analysis.

Source: AIHW analysis of National Hospital Morbidity Database.

Hospitalisations by remoteness

Hospitalisation rates for hospitalisations with a primary diagnosis of mental and behavioural disorders in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined are presented by Australian Standard Geographical Classification (ASGC) in Table 1.16.11, covering the period July 2007 to June 2009.

- Indigenous Australians in all remoteness areas were 2 to 3 times more likely to be hospitalised for mental and behavioural disorders conditions than other Australians.
- Rates of hospitalisations were highest for Indigenous people living in *Remote* areas (33 per 1,000) and lowest in *Very remote* areas (17 per 1,000). The rate was highest for other Australians in *Major cities* (17 per 1,000) and lowest in *Very remote* areas (9 per 1,000).

Table 1.16.11: Hospitalisations with a principal diagnosis of mental health related conditions, by Indigenous status and remoteness, NSW, Vic, Qld, WA, SA and NT, July 2007 to June 2009 ^{(a)(b)(c)(d)(e)(f)}

	Indigenous				Other ^(g)				Ratio ^(k)
	Number	No. per 1,000 ^(h)	LCL 95% ⁽ⁱ⁾	UCL 95% ⁽ⁱ⁾	Number	No. per 1,000 ^(h)	LCL 95% ⁽ⁱ⁾	UCL 95% ⁽ⁱ⁾	
Major cities	8,315	29.5	28.8	30.2	470,971	16.9	16.9	17.0	1.7*
Inner regional	4,571	28.0	27.1	28.9	87,370	12.1	12.0	12.2	2.3*
Outer regional ^(l)	5,032	28.9	28.0	29.7	37,338	11.1	11.0	11.2	2.6*
Remote	2,735	33.4	32.1	34.8	5,059	10.1	9.9	10.4	3.3*
Very remote	2,445	16.8	15.6	18.0	1,541	9.4	9.3	9.6	1.8*
Missing	354	..	..	..	4,155	..	..	..	..
Total^(m)	23,452	27.7	27.3	28.1	606,434	15.4	15.4	15.5	1.8*

* Represents results with statistically significant differences in the Indigenous/other comparisons at the $p < 0.05$ level.

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

(b) Categories are based on the ICD-10-AM fifth edition (National Centre for Classification in Health 2006).

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised.

(e) Age standardised rates for New South Wales, Victoria, Queensland, Western Australia, South Australia, the Northern Territory and Australia have been calculated using the direct method, age standardised by 5 year age group to 65+.

(f) New South Wales, Victoria, Western Australia, South Australia, the Northern Territory and Queensland are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Hospitalisation data for these six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

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

(h) Directly age-standardised using the Australian 2001 standard population.

(i) LCL = lower confidence limit.

(j) UCL = upper confidence limit.

(k) Rate ratio Indigenous: other.

(l) Outer regional includes remote Victoria.

(m) Total includes hospitalisations where ASGC is missing.

Notes:

1. Rates for Indigenous are calculated using the 2006 population estimates based on the 2006 Census (Series B).

2. Care types 7.3, 9 & 10 (Newborn – unqualified days only; organ procurement; hospital boarder) excluded from analysis.

Source: AIHW analysis of National Hospital Morbidity Database.

Hospitalisations of Indigenous people with principal diagnosis of injury and poisoning and other consequences of external causes and a first reported external cause of assault or self-harm in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined are presented by Australian Standard Geographical Classification (ASGC) in Table 1.16.12, for the period July 2007 to June 2009.

- Indigenous Australians in all remoteness areas were more likely to be hospitalised for these conditions than other Australians.
- Rates of hospitalisations were highest for Indigenous people living in *Remote* areas (32 per 1,000). The rate was highest for other Australians who lived in *Very remote* areas (3.1 per 1,000). The lowest rates were observed in *Major cities* for both Indigenous people (7.1 per 1,000) and other Australians (2.1 per 1,000).
- Indigenous people were hospitalised for these conditions at a rate of 10 times that of other Australians in *Remote* areas of Australia. In *Inner regional* areas and *Major cities*, where the

lowest ratios were observed, Indigenous Australians were hospitalised at a rate of 3.4 times that of other Australians. Nationally, the rate was 6.4 times.

Table: 1.16.12 Hospitalisations of Indigenous people with principal diagnosis of injury and poisoning and other consequences of external causes and a first reported external cause of assault and self-harm by Indigenous status and remoteness, NSW, Vic, Qld, WA, SA and NT, July 2007 to June 2009^{(a)(b)(c)(d)(e)(f)}

	Indigenous				Other ^(g)				Ratio ^(k)
	Number	No. per 1,000 ^(h)	LCL 95% ⁽ⁱ⁾	UCL 95% ^(j)	Number	No. per 1,000 ^(h)	LCL 95% ⁽ⁱ⁾	UCL 95% ^(j)	
Major cities	2,185	7.1	6.8	7.4	57,628	2.1	2.0	2.1	3.4*
Inner regional	1,523	8.3	7.9	8.7	16,190	2.4	2.4	2.5	3.4*
Outer regional ^(l)	2,540	13.1	12.5	13.6	7,804	2.5	2.4	2.5	5.3*
Remote	2,743	30.5	29.3	31.7	1,483	3.0	2.8	3.2	10.2*
Very remote	3,958	25.4	23.9	26.8	523	3.1	3.0	3.2	8.2*
Missing	47	..	..	..	499	..	..	..	..
Total^(m)	12,996	14.1	13.8	14.3	84,127	2.2	2.2	2.2	6.4*

* Represents results with statistically significant differences in the Indigenous/other comparisons at the $p < 0.05$ level.

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

(b) Categories are based on the ICD-10-AM fifth edition (National Centre for Classification in Health 2006).

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised.

(e) Age standardised rates for New South Wales, Victoria, Queensland, Western Australia, South Australia, the Northern Territory and Australia have been calculated using the direct method, age standardised by 5 year age group to 65+.

(f) New South Wales, Victoria, Western Australia, South Australia, the Northern Territory and Queensland are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Hospitalisation data for these six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

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

(h) Directly age-standardised using the Australian 2001 standard population.

(i) LCL = lower confidence limit.

(j) UCL = upper confidence limit.

(k) Rate ratio Indigenous: other.

(l) Outer regional includes remote Victoria.

(m) Total includes hospitalisations where ASGC is missing.

Notes:

1. Rates for Indigenous are calculated using the 2006 population estimates based on the 2006 Census (Series B).

2. Care types 7.3, 9 & 10 (Newborn – unqualified days only; organ procurement; hospital boarder) excluded from analysis.

Source: AIHW analysis of National Hospital Morbidity Database.

Hospitalisations by principal diagnosis

Mental health related conditions

Table 1.16.13 presents hospitalisations for a principal diagnosis of mental health related conditions for the 2-year period July 2006 to June 2008 for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined.

- Mental and behavioural disorders due to psychoactive substance use was the most common mental health related condition for which Aboriginal and Torres Strait Islander people were hospitalised (37%), followed by schizophrenia, schizotypal and delusional disorders (26%).

- Based on the hospitalisation rates of other males and females, in the six jurisdictions there were three to four times as many hospitalisations for mental and behavioural disorders due to psychoactive substance use among Indigenous males and females as would be expected.
- Indigenous males and females were hospitalised for schizophrenia, schizotypal and delusional disorders at around three times the rate of other males and females.

Self-harm and assault

- Although self-harm and assault are not included among the mental health related conditions presented in this indicator, hospitalisations for these conditions may be mental health related. In 2006–07 to 2007–08 in the six jurisdictions, Indigenous males and females were hospitalised for injuries related to assault at 7 and 36 times the rate, and for injuries related to self-harm at 2.7 and 2.0 times the rate of other males and females respectively (Table 1.16.14).

For more information on assault and self-harm see Indicators *1.03 Hospitalisation for injury and poisoning* and *2.13 Community safety*.

Table 1.16.13: Hospitalisations of Indigenous persons for principal diagnosis of mental health related conditions, by type of condition and sex, NSW, Vic, Qld, WA, SA and NT, July 2006 to June 2008^{(a)(b)(c)(d)}

Principal diagnosis	Males						Females						Persons ^(e)					
	No.	Per cent ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)	No.	Per cent ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)	No.	Per cent ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)
Mental & behavioural disorders due to psychoactive substance use (F10–F19)	5,195	43.0	13.1	12.7	13.5	4.4*	3,041	29.0	6.7	6.5	7.0	3.4*	8,236	36.5	9.8	9.5	10.0	3.9*
Schizophrenia, schizotypal and delusional disorders (F20–F29)	3,507	29.0	7.5	7.2	7.7	3.0*	2,279	21.7	4.9	4.7	5.1	2.5*	5,786	25.6	6.2	6.0	6.3	2.8*
Mood disorders (F30–F39)	1,156	9.6	3.0	2.8	3.2	0.9*	2,049	19.5	4.9	4.6	5.1	0.7*	3,205	14.2	3.9	3.8	4.1	0.8*
Neurotic, stress-related disorders (F40–F49)	1,202	9.9	2.8	2.7	3.0	1.2*	1,842	17.5	4.1	3.9	4.3	1.5*	3,044	13.5	3.5	3.3	3.6	1.4*
Disorders of adult personality and behaviour (F60–F69)	206	1.7	0.4	0.4	0.5	1.9*	307	2.9	0.6	0.6	0.7	0.9	513	2.3	0.5	0.5	0.6	1.2*
Behavioural and emotional disorders (F90–F98)	385	3.2	0.4	0.4	0.5	1.4*	84	0.8	0.1	0.1	0.1	1.3*	469	2.1	0.3	0.3	0.3	1.4*
Organic, including symptomatic, mental disorders (F00–F09)	154	1.3	0.8	0.7	1.0	1.4*	116	1.1	0.6	0.5	0.8	1.3*	270	1.2	0.7	0.6	0.8	1.4*

(continued)

Table 1.16.13 (continued): Hospitalisations of Indigenous persons for principal diagnosis of mental health related conditions, by type of condition and sex, NSW, Vic, Qld, WA, SA and NT, July 2006 to June 2008^{(a)(b)(c)(d)}

Principal diagnosis	Males						Females						Persons ^(e)					
	No.	% ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)	No.	% ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)	No.	% ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)
Behavioural syndromes assoc. with physiological disturbances (F50–F59)	15	0.1	0.0	0.0	0.0	0.5*	84	0.8	0.1	0.1	0.2	0.2*	99	0.4	0.1	0.1	0.1	0.2*
Unspecified mental disorder (F99)	38	0.3	0.1	0.1	0.1	3.6*	30	0.3	0.1	0.0	0.1	3.0*	68	0.3	0.1	0.1	0.1	3.3*
Mental retardation (F70–F79)	33	0.3	0.1	0.0	0.1	3.4*	18	0.2	0.0	0.0	0.0	1.6	51	0.2	0.0	0.0	0.1	2.5*
Disorders of psych. Development (F80–F89)	21	0.2	0.0	0.0	0.0	0.3*	16	0.2	0.0	0.0	0.0	0.6*	37	0.2	0.0	0.0	0.0	0.4*
Other ^(k)	178	1.5	0.4	0.3	0.5	0.7*	638	6.1	1.2	1.1	1.4	1.6*	816	3.6	0.8	0.8	0.9	1.2*
Total	12,090	100.0	28.7	28.1	29.3	2.2*	10,504	100.0	23.5	23.0	23.9	1.5*	22,594	100.0	26.0	25.6	26.3	1.8*

(continued)

Table 1.16.13 (continued): Hospitalisations of Indigenous persons for principal diagnosis of mental health related conditions, by type of condition and sex, NSW, Vic, Qld, WA, SA and NT, July 2006 to June 2008^{(a)(b)(c)(d)}

* Represents results with statistically significant differences in the Indigenous/other comparisons at the $p < 0.05$ 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 fifth edition (National Centre for Classification in Health 2006).
- (c) Financial year reporting.
- (d) Data are reported by state/territory of usual residence of the patient hospitalised and are for New South Wales, Victoria, Western Australia, South Australia, the Northern Territory and Queensland only. These six jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Hospitalisation data for these six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.
- (e) Includes hospitalisations for which sex was indeterminate or not stated.
- (f) Proportion of male, female and total hospitalisations of Indigenous people in the period 2006–07 to 2007–08.
- (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 ICD-10-AM codes relating to mental health: G30, G47.0, G47.1, G47.2, G47.8, G47.9, O99.3, R44, R45.0, R45.1, R45.4, R48, Z00.4, Z03.2, Z04.6, Z09.3, Z13.3, Z50.2, Z50.3, Z54.3, Z61.9, Z63.1, Z63.8, Z63.9, Z65.8, Z65.9, Z71.4, Z71.5, Z76.0.

Notes

1. Population estimates are based on the 2006 census.
2. Care types 7.3, 9 & 10 (Newborn – unqualified days only; organ procurement; hospital boarder) excluded from analysis.

Source: AIHW analysis of National Hospital Morbidity Database.

Table 1.16.14: Hospitalisations of Indigenous persons with a principle diagnosis of injury and poisoning and a first reported external cause of assault and self-harm, and sex, NSW, Vic, Qld, WA, SA and NT, July 2006-June 2008^{(a)(b)(c)(d)}

External cause	Males						Females						Persons ^(e)					
	No.	% ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)	No.	% ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)	No.	% ^(f)	No. per 1,000 ^(g)	LCL 95% ^(h)	UCL 95% ⁽ⁱ⁾	Ratio ^(j)
Assault (X85–Y09)	5,003	22.5	10.8	10.5	11.2	7.0*	5,309	30.7	10.9	10.6	11.2	35.5*	10,312	26.1	10.9	10.6	11.1	11.6*
Intentional self-harm (X60–X84)	1,077	4.8	2.4	2.2	2.5	2.7*	1,408	8.1	2.8	2.7	3.0	2.0*	2,485	6.3	2.6	2.5	2.7	2.3*

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons at the $p < 0.05$ 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 fifth edition (National Centre for Classification in Health 2006). Cause of injury is based on the first reported external causes where the principle diagnosis was 'injury, poisoning and certain other consequences of external causes'.

(c) Financial year reporting.

(d) Indigenous data are reported by state/territory of usual residence of the patient hospitalised and are for New South Wales, Victoria, Western Australia, South Australia, the Northern Territory and Queensland only. These six jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital. Hospitalisation data for these six jurisdictions should not be assumed to represent the hospitalisation experience in the other jurisdictions.

(e) Includes hospitalisations for which sex was indeterminate or not stated.

(f) Proportion of male, female and total hospitalisations of Indigenous people in the period 2006–07 to 2007–08.

(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.

Notes:

1. Population estimates are based on the 2006 census.

2. Care types 7.3, 9 & 10 (Newborn – unqualified days only; organ procurement; hospital boarder) excluded from analysis.

Source: AIHW analysis of National Hospital Morbidity Database.

Average length of stay in hospital (days)

- For the 2-year period July 2006 to June 2008, the average length of stay in hospital due to mental health related conditions was 10 days for Indigenous patients and 9 days for other patients (Table 1.16.15).
- On average, Indigenous males stayed in hospital for longer than Indigenous females for most types of mental and behavioural disorders.
- Mental retardation (disability characterised by significant limitations both in intellectual functioning and adaptive skills) was responsible for the highest number of bed-days of all mental health related conditions (76 days for Indigenous patients and 48 days for other patients). Organic mental disorders (which include dementia, delirium and other mental disorders due to brain damage and dysfunction) and schizophrenia, schizotypal and delusional disorders were also responsible for a high number of days spent in hospital.
- Other mental health related conditions, including Alzheimer disease and postnatal depression, were responsible for an average of 4.5 bed-days for Indigenous patients and an average of 7.6 bed-days for other patients.

Table 1.16.15: Average length of stay in hospital (days), mental health related conditions, by Indigenous status and sex, NSW, Vic, Qld, WA, SA and NT, July 2006 to June 2008^{(a)(b)(c)(d)}

Mental health related condition	Indigenous			Other ^(e)		
	Males	Females	Persons	Males	Females	Persons
Mental retardation (F70-F79)	113.4	6.0	75.5	39.2	58.7	47.9
Organic mental disorders (F00-F09)	67.4	13.0	44.0	17.0	17.4	17.2
Schizophrenia (F20-F29)	25.3	16.6	21.9	22.8	16.5	19.9
Disorders of psychological development (F80-F89)	13.5	2.8	8.9	6.6	11.2	7.9
Mood disorders (F30-F39)	9.1	7.6	8.2	8.0	7.2	7.5
Behavioural syndromes (F50-F59)	7.3	7.6	7.5	7.1	9.4	9.3
Unspecified mental disorder (F99)	7.4	4.6	6.2	19.5	18.5	19.1
Disorders of adult personality (F60-F69)	4.4	6.1	5.4	5.3	5.2	5.2
Mental disorders due to psychoactive substance use (F10-F19)	4.1	3.3	3.8	4.7	4.2	4.5
Neurotic, stress-related (F40-F49)	3.9	3.7	3.8	3.9	4.6	4.3
Behavioural & emotional disorders (F90-F98)	2.6	5.0	3.1	2.7	4.3	3.1
<i>Total mental & behavioural disorders (F00-F99)</i>	<i>11.9</i>	<i>7.6</i>	<i>10.0</i>	<i>9.5</i>	<i>8.0</i>	<i>8.7</i>
Other mental health conditions	7.4	3.7	4.5	8.3	7.0	7.6
Total	11.9	7.4	9.8	9.5	8.0	8.6

(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 fifth edition (National Centre in Health Classification 2006); ICD-10-AM codes F70–F79; F20–F29; F00–F09; F99; F50–F59; F30–F39; F60–F69; F10–F19; F80–F89; F40–F49; F90–F98; F00–F99; G30, G47.0, G47.1, G47.2, G47.8, G47.9, O99.3, R44, R45.0, R45.1, R45.4, R48, Z00.4, Z03.2, Z04.6, Z09.3, Z13.3, Z50.2, Z50.3, Z54.3, Z61.9, Z63.1, Z63.8, Z63.9, Z65.8, Z65.9, Z71.4, Z71.5, Z76.0.

(c) Financial year reporting.

(d) Data are reported by state/territory of usual residence of the patient hospitalised and are for New South Wales, Victoria, Western Australia, South Australia, the Northern Territory and Queensland only. These six jurisdictions are considered to have adequate levels of Indigenous identification, although the level of accuracy varies by jurisdiction and hospital.

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

Source: AIHW analysis of National Hospital Morbidity Database.

Time series analysis

Time series data from 2001–02 to 2007–08 are presented for the four jurisdictions that have been assessed as having adequate identification of Indigenous hospitalisations over this period – Queensland, Western Australia, South Australia and the Northern Territory. These four jurisdictions represent approximately 60% of the Indigenous Australian population.

Additional trend analysis has also been presented for New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined from 2004–05 to 2007–08 for Indigenous and other Australians. New South Wales and Victoria have been assessed as having adequate identification of Indigenous hospitalisations from 2004–05. These six jurisdictions represent approximately 96% of the Indigenous population of Australia.

Mental health related conditions – 2001–02 to 2007–08

Hospitalisation rates, rate ratios and rate differences between Indigenous and other Australians for mental health related conditions over the 7-year period 2001–02 to 2007–08 are presented in Table 1.16.16 and Figure 1.16.4.

- In Queensland, Western Australia, South Australia and the Northern Territory, there were no significant increases in hospitalisation rates for mental health related conditions among Indigenous persons during the period 2001–02 to 2007–08.
- There were significant declines in hospitalisation rates for mental health related conditions among other Australians over the same period with an average yearly decline in the rate of around 0.2 per 1,000 (equivalent to a 7% reduction in the rate over the period). The declines in annual change in hospitalisation rates were significant for both males and females.
- There was a significant increase in the hospitalisation rate ratios between Indigenous and other Australians during the period 2001–02 to 2007–08 (equivalent to a 7% increase). There were no significant changes in the rate differences over the period.

Note that changes in the level of accuracy of Indigenous identification in hospital records over this period will result in changes in the level of reported hospital separations for Indigenous Australians. Also, changes in access, hospital policies and practices all affect 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 to real changes in the rates at which Indigenous people are hospitalised. An increase in hospitalisation rates may reflect better hospital access rather than a worsening of health.

Table 1.16.16: Age-standardised hospitalisation rates, rate ratios and rate differences from mental health related conditions, Qld, WA, SA and NT, 2001–02 to 2007–08^(a)

	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	Annual change ^(b)	Per cent change over period ^(c)
Indigenous separations									
Males	2,876	2,888	2,864	2,864	2,983	3,186	3,334	75*	15.6*
Females	2,564	2,729	2,765	2,855	2,805	2,822	2,964	51*	11.9*
Persons	5,440	5,620	5,644	5,719	5,788	6,008	6,298	125*	13.8*
Other Australian separations									
Males	45,616	44,070	44,660	43,892	43,631	47,835	47,688	454	6.0
Females	52,151	54,612	55,812	56,818	55,524	55,461	55,672	428	4.9
Persons	97,767	98,684	100,472	100,710	99,155	103,296	103,360	882*	5.4*
Indigenous rate (no. per 1,000)									
Males	24.8	24.3	20.1	23.2	24.0	24.4	25.0	0.2	4.1
Females	20.7	21.5	21.4	21.4	20.7	20.0	21.0	-0.1	-2.9
Persons	22.7	22.8	22.4	22.2	22.2	22.1	22.9	0.0	-0.9
Other Australian^(d) rate (no. per 1,000)									
Males	13.1	12.4	12.3	11.8	11.5	12.2	11.9	-0.2*	-7.7*
Females	14.6	15.1	15.1	15.2	14.5	14.1	13.9	-0.2*	-6.9*
Persons	13.9	13.7	13.7	13.5	13.0	13.2	12.9	-0.2*	-7.4*
Rate ratio^(e)									
Males	1.9	2.0	1.6	2.0	2.1	2.0	2.1	0.0	12.9
Females	1.4	1.4	1.4	1.4	1.4	1.4	1.5	0.0	4.2
Persons	1.6	1.7	1.6	1.6	1.7	1.7	1.8	0.02*	7.0*
Rate difference^(f)									
Males	11.7	11.9	7.8	11.3	12.5	12.2	13.1	0.3	17.2
Females	6.1	6.5	6.2	6.2	6.2	5.9	7.1	0.1	6.6
Persons	8.8	9.1	8.7	8.7	9.3	8.9	10.0	0.1	9.3

* Represents results with statistically significant increases or decreases at the $p < 0.05$ level over the period 2001–02 to 2007–08.

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

(b) Average annual change in rates, rate ratios and rate differences determined using linear regression analysis.

(c) Per cent change between 2001–02 and 2007–08 based on the average annual change over the period.

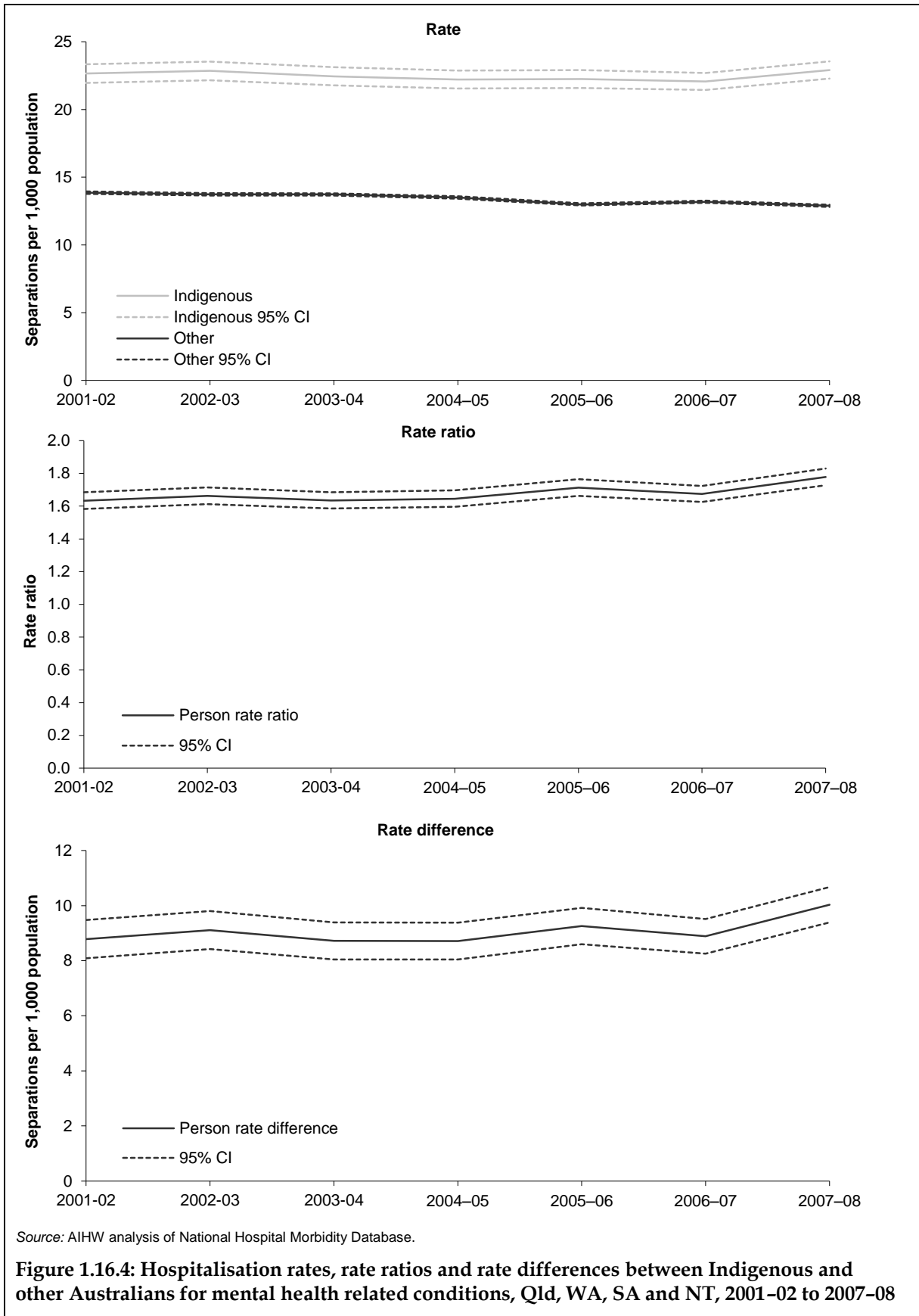
(d) Includes hospitalisations of non-Indigenous Australians and those for whom Indigenous status was not stated.

(e) Hospitalisation rates for Indigenous Australians divided by hospitalisation rates for other Australians.

(f) Hospitalisation rates for Indigenous Australians minus hospitalisation rates for other Australians.

Note: Rates have been directly age-standardised using the 2001 Australian standard population.

Source: AIHW analysis of National Hospital Morbidity Database.



Mental health related conditions – 2004–05 to 2007–08

Hospitalisation rates, rate ratios and rate differences between Indigenous and other Australians for mental health related conditions over the three year period 2004–05 to 2007–08 are presented in Table 1.16.17 and Figure 1.16.5.

- In New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory, there were significant increases in hospitalisation rates for mental health related conditions among Indigenous males during the period 2004–05 to 2007–08. The fitted trend implies an average yearly increase in the rate of around 0.8 per 1,000, which is equivalent to a 9.4% increase in the rate over the period.
- There were no significant changes in hospitalisation rates for mental health related conditions among other Australians over the same period.
- There were significant increases in both the hospitalisation rate ratios and rate differences between Indigenous and other Australians for males and persons, but not for females, during the period 2004–05 to 2007–08. There was a 7% increase in the rate ratio and a 17% increase in the rate difference for persons over the period. This reflects both a relative and absolute increase in the gap between hospitalisation rates of Indigenous and other Australians for mental health related conditions over the period 2004–05 to 2007–08.

Note that changes in the level of accuracy of Indigenous identification in hospital records over this period will result in changes in the level of reported hospital separations for Indigenous Australians. Also, changes in access, hospital policies and practices all affect 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 to real changes in the rates at which Indigenous people are hospitalised. An increase in hospitalisation rates may reflect better hospital access rather than a worsening of health.

Table 1.16.17: Age-standardised hospitalisation rates, rate ratios and rate differences from mental health related conditions, NSW, Vic, Qld, WA, SA and NT, 2004–05 to 2007–08^(a)

	2004–05	2005–06	2006–07	2007–08	Annual change ^(b)	Per cent change over period ^(c)
Indigenous separations						
Males	5,160	5,600	5,922	6,168	335*	19.5*
Females	4,850	4,853	5,119	5,385	187*	11.6*
Persons	10,010	10,453	11,041	11,553	522*	15.6*
Other Australian separations						
Males	124,830	124,230	129,242	131,045	2,366*	5.7*
Females	157,506	160,149	161,003	164,800	2,274*	4.3*
Persons	282,337	284,380	290,245	295,850	4,641*	4.9*
Indigenous rate per 1,000						
Males	26.4	27.8	28.5	28.9	0.8*	9.4*
Females	23.3	22.2	22.9	24.0	0.3	3.4
Persons	24.8	24.8	25.5	26.4	0.5*	6.5*
Other Australian rate (no. per 1,000)^(d)						
Males	13.2	13.0	13.2	13.1	0.0	-0.1
Females	16.2	16.2	16.0	16.1	-0.1	-1.0
Persons	14.7	14.6	14.6	14.6	0.0	-0.6
Rate ratio^(e)						
Males	2.0	2.1	2.2	2.2	0.1*	9.5*
Females	1.4	1.4	1.4	1.5	0.0	4.5
Persons	1.7	1.7	1.7	1.8	0.04*	7.2*
Rate difference^(f)						
Males	13.2	14.9	15.3	15.8	0.8*	18.9*
Females	7.1	6.0	6.9	7.9	0.3	13.6
Persons	10.1	10.2	10.9	11.7	0.6*	16.9*

* Represents results with statistically significant increases or decreases at the $p < 0.05$ level over the period 2004–05 to 2007–08.

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

(b) Average annual change in rates, rate ratios and rate differences determined using linear regression analysis.

(c) Per cent change between 2004–05 and 2007–08 based on the average annual change over the period.

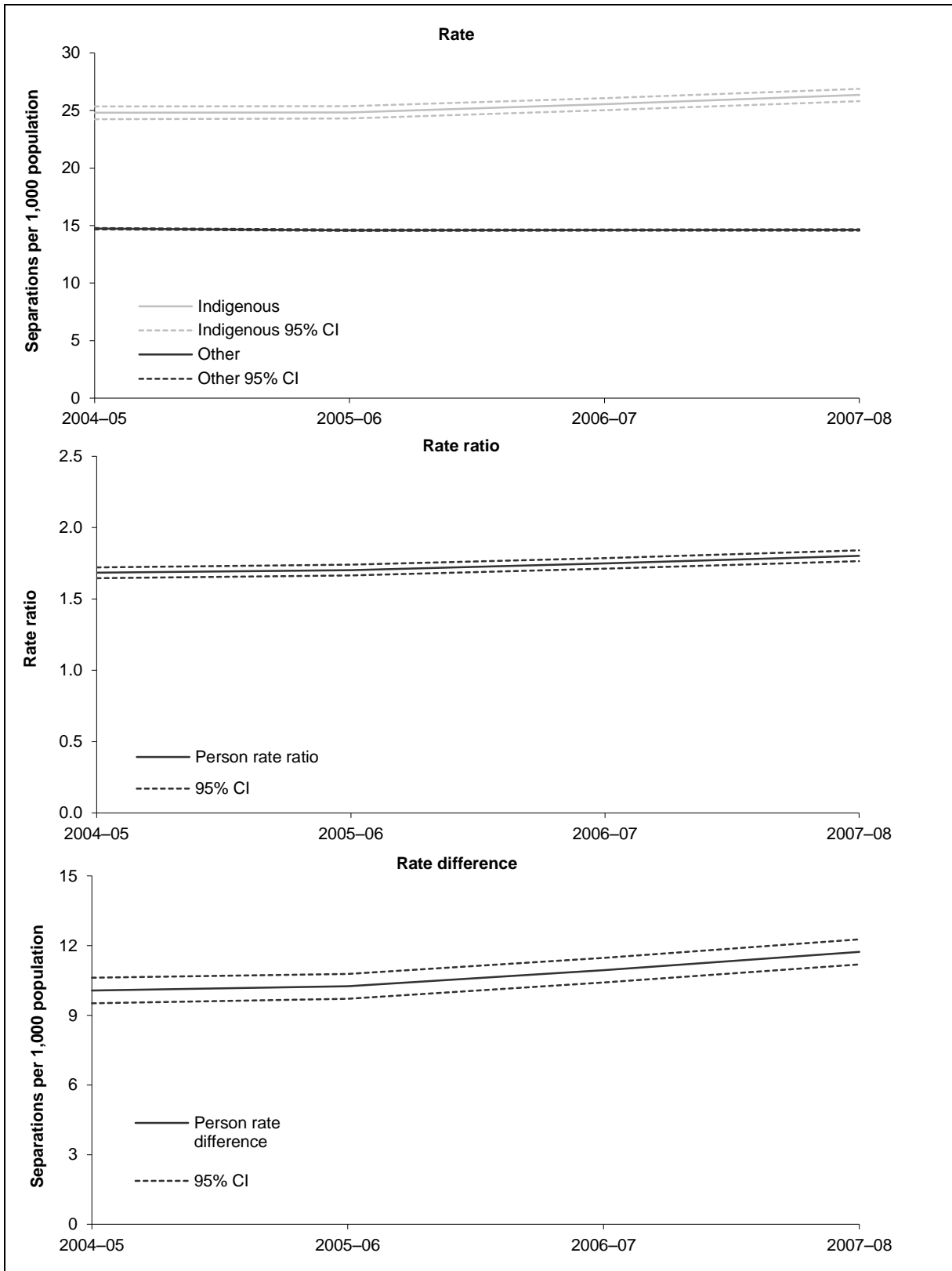
(d) Includes hospitalisations of non-Indigenous Australians and those for whom Indigenous status was not stated.

(e) Hospitalisation rates for Indigenous Australians divided by hospitalisation rates for other Australians.

(f) Hospitalisation rates for Indigenous Australians minus hospitalisation rates for other Australians.

Note: Rates have been directly age-standardised using the 2001 Australian standard population.

Source: AIHW analysis of National Hospital Morbidity Database.



Source: AIHW analysis of National Hospital Morbidity Database.

Figure 1.16.5: Hospitalisation rates, rate ratios and rate differences between Indigenous and other Australians for mental health related conditions, NSW, Vic, Qld, WA, SA and NT, 2004-05 to 2007-08

Community mental health care services

Community mental health care is defined as care which is provided by specialised public mental health services dedicated to the assessment, treatment, rehabilitation and care of non-admitted clients. This excludes specialised mental health care services for admitted patients, support services that are not provided by specialised mental health care organisations, services provided by non-government organisations, and residential care services.

The number and rate of service contacts per 1,000 population for Aboriginal and Torres Strait Islander peoples varies among the states and territories. This may reflect variations in completeness of Indigenous identification among patients, varying coverage of service contacts for Aboriginal and Torres Strait Islander peoples or for the total population, or different patterns of service use by Indigenous and non-Indigenous persons.

- In 2007–08, the proportion of service contacts for clients of community mental health services who identified themselves as being of Aboriginal and/or Torres Strait Islander origin ranged from 1.7% for Victoria to 30.9% for the Northern Territory.
- There were more community mental health service contacts per 1,000 population for Aboriginal and Torres Strait Islander peoples than for other Australians (737 per 1,000 and 294 per 1,000, respectively). This was true in all jurisdictions except Tasmania. These rates should be interpreted with caution because there is likely to be an under-estimate of the actual number of service contacts for Indigenous clients.
- In 2007–08, Indigenous people had higher proportions of mental health service contacts for the younger age groups than did other Australians, but lower proportions in the older age groups, reflecting the differences in age distribution in these populations (the mean age of Indigenous Australians is around 21 years compared with 36 years for non-Indigenous Australians). For example, 22% and 24% of service contacts for Indigenous Australian males and females were for clients aged between 15 and 24 years compared with 17% of service contacts for other Australian of both sexes of the same age.
- In the older age groups, there were lower proportions of service contacts for Indigenous Australian males and females aged 65 years or more (both 1%) than for other Australian males (7%) and females (14%).
- In 2007–08, Indigenous males and females had higher rates of community mental-health-care service contacts across the majority of age groups, with the exception of females aged 65 years and over. Differences were most marked in the 25–34 and 35–44 year age groups where Indigenous males and females were between 2.7 and 3.8 times as likely to be clients of community mental-health-care services as other Australians in these age groups.

For more information on community mental health services see Indicator 3.09: *Access to mental health services*.

Residential mental health care services

Residential mental health care refers to care provided by a specialised mental health service that:

- employs mental-health-care-trained staff on-site
- provides rehabilitation, treatment or extended care to residents for whom the care is intended to be on an overnight basis and in a domestic-like environment
- encourages the resident to take responsibility for their daily living activities.

These services include those that employ mental-health-trained staff on-site 24 hours per day and other services with less intensive staffing. However, all these services employ on-site mental-health-trained staff for some part of the day. There are no residential mental-health-care services in Queensland.

- In 2007–08, there were 3,222 clients of residential mental-health-care services, of which 87 service contacts (2.7%) were for Indigenous people.

For more information on residential mental health services see Measure 3.09 (Access to mental health services).

Mortality

- Between 2004–2008 mental health related conditions (such as mental and behavioural disorders due to psychoactive substance use and organic mental disorders) were responsible for 273 deaths which was approximately 2.5% of all deaths of Aboriginal and Torres Strait Islander peoples.

Mortality by age and sex

Table 1.16.18 presents age-specific mortality rates for mental health related conditions for the period 2004–2008 for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined.

- Between 2004 and 2008, Indigenous males had twice the mortality rate as non-Indigenous males for mental health related conditions. Indigenous females had 1.3 times the mortality rate as non-Indigenous females.
- Mortality rates were higher for males than for females across most age groups in both the Indigenous and non-Indigenous population.
- Differences were most marked in the 15–24, and 45–54 year age groups where Indigenous males died at 7 times the rates of non-Indigenous males. For females, the most marked differences were observed in the 25–34 and 35–44 year age groups where Indigenous females died at between 10 and 11 times the rates of non-Indigenous females, respectively. These differences in mortality rates are mainly the result of the high number of deaths from mental and behavioural disorders due to psychoactive substance use among the Indigenous population in these age groups.

Table 1.16.18: Mental health related mortality rates per 100,000, by Indigenous status, age group and sex, NSW, Qld, WA, SA and NT, 2004–2008^{(a)(b)(c)(d)(e)(f)(g)(h)(i)}

Age group (years)	Males			Females		
	Indigenous rate ⁽ⁱ⁾	Non-Indigenous rate ⁽ⁱ⁾	Rate ratio ^(k)	Indigenous rate ⁽ⁱ⁾	Non-Indigenous rate ⁽ⁱ⁾	Rate ratio ^(k)
Less than 1	0.0	0.0	0.0	0.0	0.0	0.0
1–4	0.0	0.2	0.0	0.0	0.1	0.0
5–14	0.0	0.0	0.0	0.0	0.0	0.0
15–24	1.8	0.2	7.4	1.4	0.3	5.1
25–34	5.0	1.1	4.5	4.2	0.4	9.9
35–44	13.0	2.3	5.7	8.6	0.8	11.4
45–54	21.9	3.4	6.5	11.6	1.4	8.3
55–64	29.9	7.4	4.0	14.2	4.2	3.4
65–74	109.7	32.7	3.4	93.4	24.5	3.8
75 and over	490.9	363.1	1.4	573.9	536.3	1.1
Total^(l)	44.3	24.9	1.8	45.0	33.3	1.3

(a) ICD-10 codes: F00–F99, G30, G47.0, G47.1, G47.2, G47.8, G47.9, O99.3, R44, R45.0, R45.1, R45.4, R48.

(b) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These five states and territories are considered to have adequate levels of Indigenous identification in mortality data. Data for these four jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Mortality data for the four jurisdictions should not be assumed to represent the experience in the other jurisdictions.

(c) Data are presented in 5-year groupings because of small numbers each year.

(d) These data exclude registered deaths where the Indigenous status is not stated.

(e) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all-causes mortality rate. It is also difficult to exactly identify the difference between the Indigenous and non-Indigenous mortality rates because of these data quality issues.

(f) Deaths prior to 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year prior to 2007 is equivalent to reference year from 2007 onwards.

(g) Causes of death data for 2007 have been revised and are subject to further revisions. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.

(h) 2008 data have been subject to a process improvement which has increased the quality of these data. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 1: 2008 COD Collection - Process Improvement for further information.

(i) Causes of death data for 2008 are preliminary and subject to a revisions process. See *Causes of death, Australia, 2008* (ABS 2010) Technical Note 2: Revisions Process for further information.

(j) Age-specific death rates per 100,000 using the midpoint populations for the relevant years.

(k) Rate ratio Indigenous:other.

(l) Total includes age not stated. Total rates have been directly age-standardised using the Australian 2001 standard population.

Note: The completeness of identification of Indigenous deaths can vary by age..

Source: ABS and AIHW analysis of ABS Mortality Database.

Mortality by cause of death

Mental health related conditions

Deaths for the period 2004–2008 among Aboriginal and Torres Strait Islander peoples in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined are presented in Table 1.16.19 by type of mental health related condition.

- For Indigenous males, the most common cause of death was from mental and behavioural disorders due to psychoactive substance (73 deaths or 57%). For Indigenous females it was organic mental disorders, which include dementia, delirium and other mental disorders due to brain damage and dysfunction (75 deaths or 52%).
- In the five jurisdictions combined, Indigenous males died from mental health related conditions at around twice the rate of other males.
- Indigenous males and females died from mental and behavioural disorders due to psychoactive substance use at 5 and 8 times the rate of other males and females respectively.

Assault and self-harm

- In addition to the mental health related conditions presented here, there were 439 deaths due to self-harm (suicide) (4.0% of total deaths) and 139 deaths due to assault (1.3%) of Indigenous people in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined between 2004 and 2008.
- Indigenous Australians died from self-harm and assault at 2.1 and 8.6 times the rate of non-Indigenous Australians for these causes of death respectively.
- Mental health related conditions, assault and self-harm together were responsible for about 8% of all deaths of Indigenous Australians.

For more information on causes of mortality see Indicator 1.23 *Leading causes of mortality*.

Table 1.16.19: Deaths from mental health related conditions for Indigenous Australians, by sex, NSW, Qld, WA, SA and NT, 2004–2008^{(a)(b)(c)(d)(e)(f)(g)(h)}

Cause of death	Males			Females			Persons		
	Number	Number per 100,000 ⁽ⁱ⁾	Ratio ^(j)	Number	Number per 100,000 ⁽ⁱ⁾	Ratio ^(j)	Number	Number per 100,000 ⁽ⁱ⁾	Ratio ^(j)
Mental and behavioural disorders due to psychoactive substances use (F10–F19)	73	14.4	5.4	43	6.4	7.7	116	9.9	5.8
Organic, including symptomatic mental disorders (F00–F09)	42	23.6	1.6	75	28.1	1.3	117	26.3	1.4
Other ^(k)	13	6.4	0.9	27	10.4	0.9	40	8.9	0.9
Total	128	44.3	1.8	145	45	1.3	273	45.1	1.5

(a) Data are reported for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These five states and territories are considered to have adequate levels of Indigenous identification in mortality data. Data for these five jurisdictions over-represent Indigenous populations in less urbanised and more remote locations. Mortality data for the five jurisdictions should not be assumed to represent the experience in the other jurisdictions.

(b) Data are presented in 5-year groupings because of small numbers each year.

(c) These data exclude 207 registered deaths where the Indigenous status is not stated.

(d) Although most deaths of Indigenous Australians are registered, it is likely that some are not accurately identified as Indigenous. Therefore, these statistics are likely to underestimate the Indigenous all-causes mortality rate. It is also difficult to exactly identify the difference between the Indigenous and non-Indigenous mortality rates because of these data quality issues.

(e) Deaths prior to 2007 are by year of registration and state/territory of usual residence. Deaths from 2007 onwards are by reference year and state/territory of usual residence. Registration year prior to 2007 is equivalent to reference year from 2007 onwards.

(f) Causes of death data for 2007 have been revised and are subject to further revisions. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.

(g) 2008 data have been subject to a process improvement which has increased the quality of these data. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 1: 2008 COD Collection - Process Improvement for further information.

(h) Causes of death data for 2008 are preliminary and subject to a revisions process. See Causes of Death, Australia, 2008 (cat. No. 3303.0) Technical Note 2: Revisions Process for further information.

(i) Directly age-standardised using the Australian 2001 standard population.

(j) Rate ratio Indigenous:non-Indigenous.

(k) Includes ICD-10 codes: F20–F99, G30, G47.0, G47.1, G47.2, G47.8, G47.9, O99.3, R44, R45.0, R45.1, R45.4, R48.

Note: Different causes of death may have levels of completeness of identification of Indigenous deaths that differ from the all-cause under-identification (coverage) estimates.

Source: ABS and AIHW analysis of ABS Mortality Database

General practitioner encounters

Information about general practitioner (GP) encounters is available from the BEACH survey. Data for the 5-year BEACH reporting period April 2004–March 2005 to April 2008–March 2009 are presented below. Mental health related problems (psychological problems) were the sixth most common type of problems managed at GP encounters with Aboriginal and Torres Strait Islander patients during this period. The other five most common types of problems were respiratory conditions, circulatory conditions, endocrine and metabolic problems, musculoskeletal conditions and skin problems.

During the BEACH reporting period April 2008–March 2009 of GP encounters reported in the BEACH survey, 12% were mental health-related encounters (AIHW 2010b).

- In the period reporting period April 2004–March 2005 to April 2008–March 2009 there were 6,137 GP encounters with Aboriginal and Torres Strait Islander patients recorded in the survey, at which 9,305 problems were managed. Of these, 9.7% (901) were mental health related problems (Table 1.16.20).
- Depression was the most common mental health related problem managed at GP encounters with Indigenous patients, followed by drug abuse (licit or illicit), anxiety and alcohol abuse.
- Mental health related problems were managed at a rate of 14.7 per 100 GP encounters with Indigenous patients compared to a rate of 12.1 per 100 GP encounters with other patients.
- After adjusting for differences in age distribution, mental health related problems were managed at GP encounters with Indigenous patients at a similar rate to encounters with other patients.
- Alcohol and drug abuse were managed at GP encounters with Indigenous patients at around three times the rate of encounters with other patients.
- Tobacco abuse, schizophrenia and dementia were also more commonly managed at GP encounters with Indigenous patients than with other patients (at around twice the rate).

Table 1.16.20: Most frequently reported mental health related problems^(a) managed by general practitioners, by Indigenous status of patient, BEACH years April 2004–March 2005 to April 2008–March 2009^{(b)(c)}

Problem managed	Number		Per cent of total problems		Crude rate (number per 100 encounters)						Age-standardised rate (number per 100 encounters) ^(d)		
	Indigenous	Other ^(e)	Indigenous	Other ^(e)	Indigenous	95% LCL ^(f)	95% UCL ^(g)	Other ^(e)	95% LCL ^(f)	95% UCL ^(g)	Indigenous	Other ^(e)	Ratio ^(h)
Depression (P03, P76)	221	20,031	2.4	2.7	3.6	3.0	4.2	4.2	4.1	4.3	3.3	4.1	0.8
Drug abuse (P19)	120	2,137	1.3	0.3	2.0	1.0	2.9	0.4	0.4	0.5	1.4	0.4	3.2
Anxiety (P01, P74)	87	8,953	0.9	1.2	1.4	1.0	1.8	1.9	1.8	1.9	1.5	1.8	0.8
Sleep disturbance (P06)	67	7,800	0.7	1.1	1.1	0.8	1.4	1.6	1.6	1.7	1.3	1.6	0.8
Alcohol abuse (P15, P16)	74	1,697	0.8	0.2	1.2	0.8	1.6	0.4	0.3	0.4	1.0	0.4	2.9
Schizophrenia (P72)	58	2,288	0.6	0.3	0.9	0.5	1.3	0.5	0.4	0.5	0.8	0.5	1.7
Tobacco abuse (P17)	69	2,142	0.7	0.3	1.1	0.7	1.5	0.4	0.4	0.5	1.1	0.4	2.4
Acute stress reaction (P02)	54	3,064	0.6	0.4	0.9	0.6	1.2	0.6	0.6	0.7	0.9	0.6	1.5
Affective psychosis (P73)	20	1,017	0.2	0.1	0.3	0.2	0.5	0.2	0.2	0.2	0.3	0.2	1.4
Dementia (P70)	12	2,588	0.1	0.4	0.2	0.1	0.3	0.5	0.5	0.6	0.9	0.5	1.7
Other ⁽ⁱ⁾	119	6,574	1.3	0.9	1.9	1.5	2.4	1.4	1.3	1.4	1.7	1.4	1.2
Total mental health	901	58,291	9.7	8.0	14.7	12.8	16.6	12.1	11.9	12.4	14.1	12	1.2

(a) Classified according to ICPC-2 codes (Classification Committee of the World Organization of Family Doctors (WICC) 1998).

(b) Data from five combined BEACH years April 2004–March 2005 to April 2008–March 2009 inclusive.

(c) Data for Indigenous and other Australians have not been weighted.

(d) Directly age-standardised rate (no. per 100 encounters). Figures do not add to 100 as more than one problem can be managed at each encounter.

(e) Other includes non-Indigenous patients and patients for whom Indigenous status was not stated.

(f) LCL = lower confidence interval.

(g) UCL = upper confidence interval.

(h) Rate ratio Indigenous:other.

(i) ICPC-2 codes: P04–P05, P07–P13, P18, P20, P22–P25, P27–P29, P71, P75, P77–P82, P85–P86, P98–P99.

Source: AIHW analysis of BEACH survey of general practice, AGPSCC.

Additional information

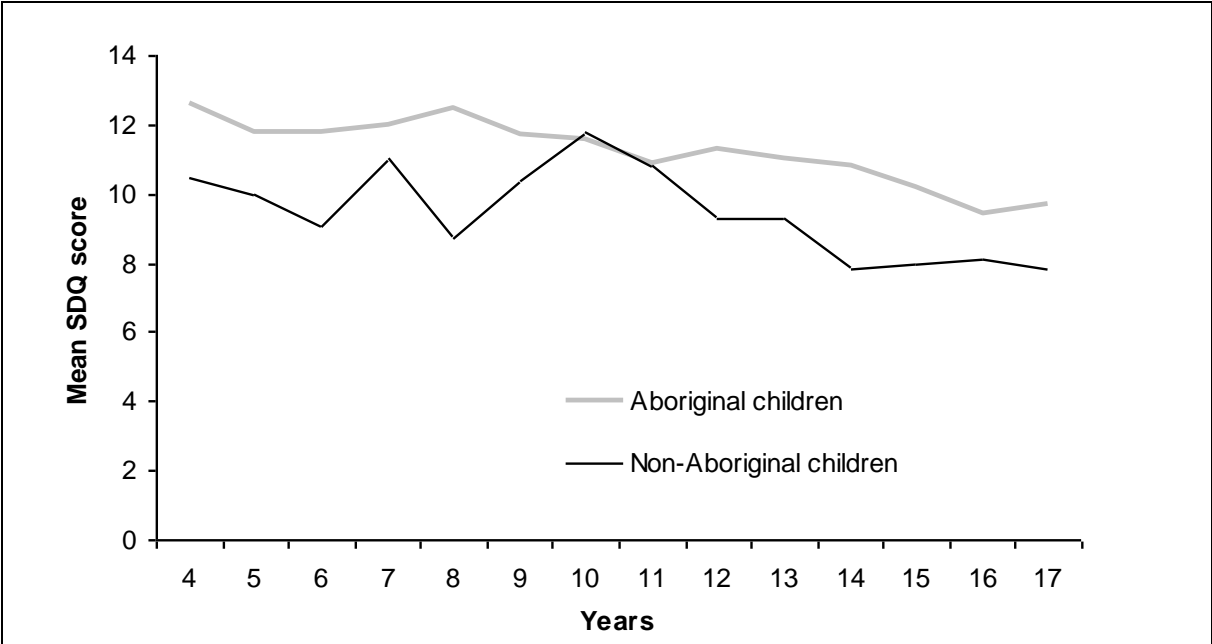
Social and emotional wellbeing of Aboriginal children

The Western Australian Aboriginal Child Health Survey (WAACHS) collected information on the social and emotional wellbeing of Aboriginal children and a small number of Torres Strait Islander children over 2001 and 2002. It found that a variety of health conditions, social circumstances and behaviours experienced by individuals, their carers and families can have an impact on the social and emotional wellbeing of Indigenous children (Zubrick et al. 2005). Some of the findings from the survey are presented below. Note that the term 'Aboriginal' is used here and in the survey but refers to both Aboriginal and Torres Strait Islander children.

Emotional and behavioural difficulties

The Strengths and Difficulties Questionnaire (SDQ), used throughout the world to measure emotional and behavioural difficulties in children, was modified for Aboriginal children in the WAACHS. The SDQ contains questions that explore emotional symptoms, conduct problems, hyperactivity, peer problems and social behaviour.

- Approximately 24% of Aboriginal children aged 4-17 years surveyed were assessed from the SDQ completed by their carers as being at high risk of clinically significant emotional or behavioural difficulties compared with 15% of other children (Zubrick et al. 2005).
- Aboriginal children had higher mean SDQ scores than other children at all ages between 4 and 17 years except for ages 10 and 11 where mean scores were similar (Table 1.16.21; Figure 1.16.6).
- Male Aboriginal children were twice as likely as female Aboriginal children to be at high risk of clinically significant emotional or behavioural difficulties.
- Those children living in areas of extreme isolation were less at risk than those living in urban areas.



Sources: Zubrick et al. 2005; Computer-assisted telephone interview survey conducted for the WAACHS by the Survey Research Centre at the University of Western Australia.

Figure 1.16.6: Mean Strengths and Difficulties Questionnaire (SDQ) total score, by age, Aboriginal and non-Aboriginal children aged 4-17 years, WA, 2001, 2002

Table 1.16.21: Mean Strengths and Difficulties Questionnaire (SDQ) total score, by age, Aboriginal and non-Aboriginal children aged 4-17 years, WA, 2001, 2002

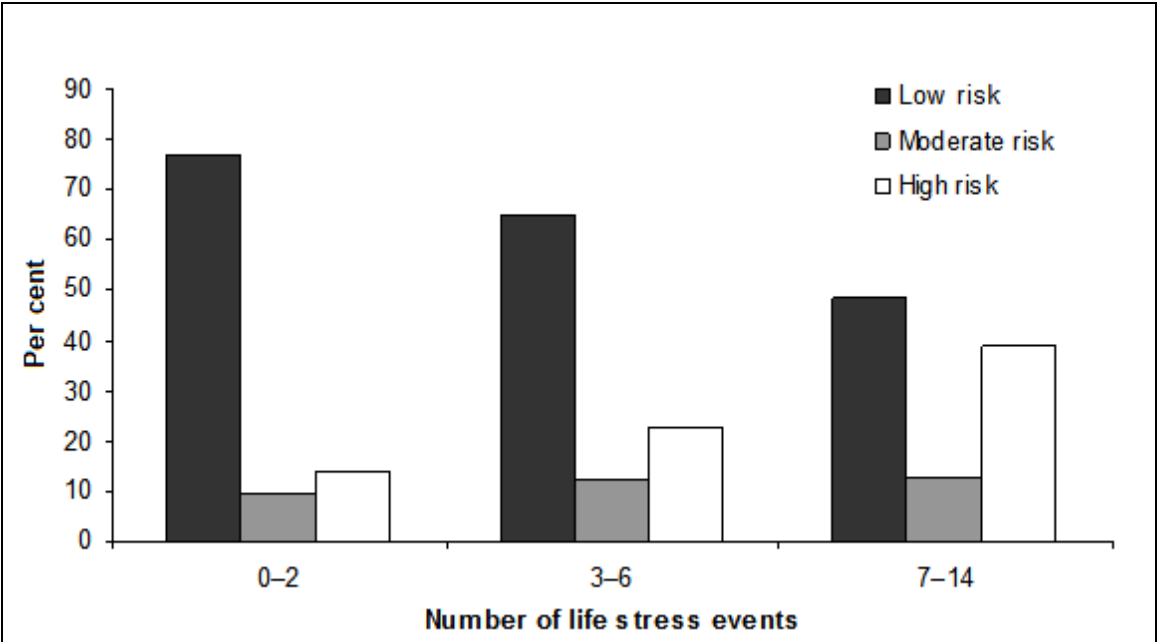
	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Aboriginal children	12.6	11.8	11.8	12.0	12.5	11.7	11.6	10.9	11.3	11.0	10.8	10.2	9.4	9.7
Non-Aboriginal children	10.5	10.0	9.1	11.0	8.7	10.4	11.8	10.8	9.3	9.3	7.8	8.0	8.1	7.8

Sources: Zubrick et al. 2005; Computer-assisted telephone interview survey conducted for the WAACHS by the Survey Research Centre at the University of Western Australia

Family and household factors

The WAACHS looked at a range of family and household factors which could affect the social and emotional wellbeing of children. Factors which were found to be associated with high risk of clinically significant emotional or behavioural difficulties in Aboriginal children included the number of stress events that the family experienced in the 12 months before the survey (such as illness, hospitalisation, death of a close family member, family break-up, arrests, job loss, financial difficulties), quality of parenting, family functioning and family care arrangements. Residential mobility, the physical health of the child (speech, hearing and vision problems), the physical health of the carer and the carer’s use of mental health services were also associated with an increased risk of clinically significant emotional or behavioural difficulties in children.

- For example, around 22% of children aged 4–17 years in Western Australia were living in families where seven or more life stress events had occurred over the preceding 12 months. Of these children, 39% were at high risk of clinically significant emotional or behavioural difficulties compared with 14% of children in families where two or fewer life stress events had occurred (Table 1.16.22; Figure 1.16.7).



Source: Zubrick et al. 2005.

Figure 1.16.7: Proportion of Aboriginal children aged 4–17 years at low, moderate and high risk of clinically significant emotional or behavioural difficulties, by number of life stress events, WA, 2001, 2002

Table 1.16.22: Proportion of Aboriginal children aged 4–17 years at low, moderate and high risk of clinically significant emotional or behavioural difficulties, by number of life stress events, WA, 2001, 2002

	Low risk	Moderate risk	High risk
0–2	76.8	9.3	13.9
3–6	64.9	12.2	22.9
7–14	48.4	12.7	38.9
Total	64.6	11.4	24.0

Source: Zubrick et al. 2005.

- Around one-quarter of Aboriginal children were living in families with poor quality of parenting (measured by how often carers praised their children, hit or smacked their children and laughed together with their children) and one-fifth of children were living in families that functioned poorly (families with poor communication and decision making, poor emotional support, limited time spent together and poor family cooperation). These children were over twice as likely to be at high risk of emotional and behavioural difficulties as children living in families with very good quality of parenting or very good family functioning (Zubrick et al. 2005).

Health risk factors

Zubrick et al. 2005 found that a number of health risk factors were also found to be associated with a high risk of clinically significant emotional and behavioural difficulties.

- An estimated 18% of Western Australian Aboriginal young people aged 12–17 years who smoked regularly were at high risk of emotional and behavioural difficulties compared with 7% of non-smokers.
- Approximately 29% of young people aged 12–17 years who used marijuana/cannabis daily were at risk of clinically significant emotional or behavioural difficulties compared with 9% of young people who had never used marijuana/cannabis. Although Indigenous males were more likely to use marijuana than Indigenous females, particularly at age 17 (45% compared with 21%), Indigenous females who used marijuana/cannabis were more likely to be at risk of clinically significant emotional or behavioural difficulties than Indigenous males.
- Young people who did not participate in organised sport were twice as likely to be at high risk of emotional and behaviour difficulties compared with young people who did participate in sport (16% and 8% respectively).
- Those who had been subject to racism in the preceding 6 months were more than twice as likely to be at high risk of emotional and behavioural difficulties than those who had not experienced racism.

Suicidal behaviour

The Telethon Institute administered an additional survey of Aboriginal young people aged 12–17 years to measure rates of suicidal thoughts and suicide attempts.

- Suicidal thoughts were reported by around one in six (16%) Western Australian Aboriginal people aged 12–17 years in the 12 months before the survey.
- Overall, a higher proportion of Aboriginal females reported they had seriously thought about ending their own life than Aboriginal males (20% compared with 12%). This was true for all ages from 12 to 17 years except for those aged 16 where Indigenous males were more likely than females to report having thought about ending their own life (Table 1.16.23; Figure 1.16.8).
- Of those who had suicidal thoughts in the 12 months before the survey, 39% reported they had attempted suicide in the same period. This finding is similar to the proportion of the general young population aged 12–16 years who reported suicide attempts in the 1993 Western Australian Child Health Survey (Zubrick et al. 2005).
- Aboriginal young people who had been exposed to family violence were more than twice as likely to have thought about ending their own life (22%) as Aboriginal young people who had not been exposed to family violence (9%).
- A higher proportion of Aboriginal males reported they had thought about ending their own life if they had low self-esteem (21%) than if they had high self-esteem (5%).
- Suicidal thoughts were associated with a number of health risk behaviours. The proportion of Aboriginal young people who reported suicidal thoughts was significantly higher among those who smoked regularly, used marijuana, drank to excess in the 6 months before the survey, were exposed to some form of family violence and who had a friend who had attempted suicide.

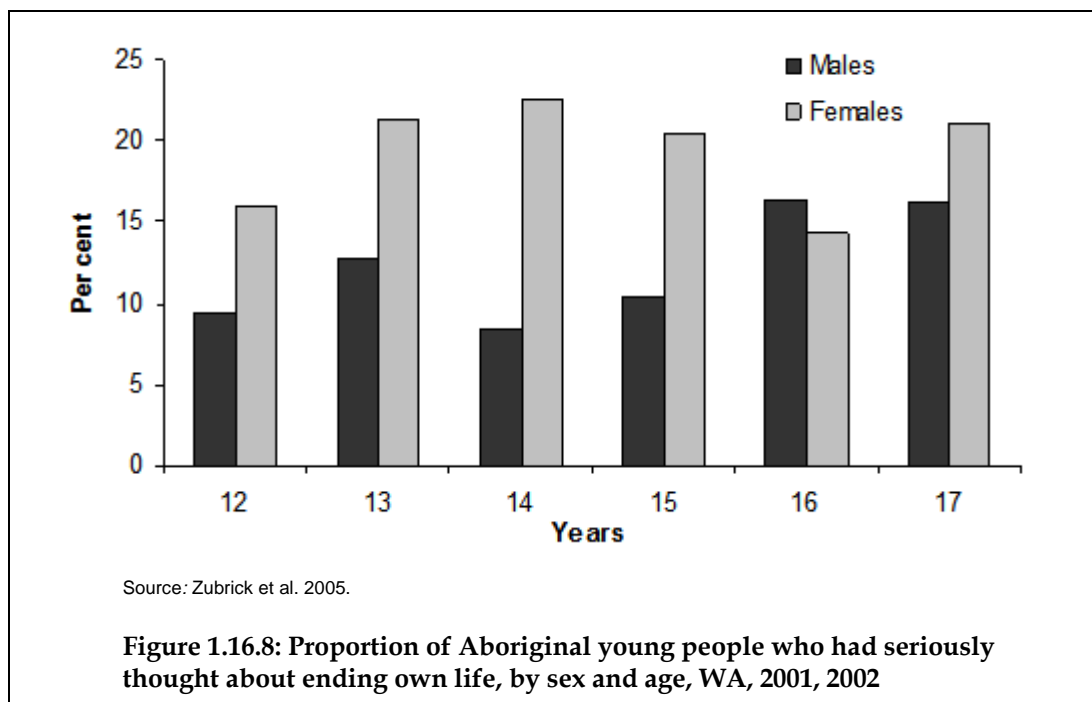


Table 1.16.23: Proportion of Aboriginal young people who had seriously thought about ending own life, by sex and age, WA, 2001, 2002

	12	13	14	15	16	17
Males	9.3	12.7	8.3	10.4	16.4	16.2
Females	16.0	21.4	22.5	20.4	14.4	21.1

Source: Zubrick et al. 2005.

Effects of forced separation

- Children of Aboriginal carers who had been forcibly separated from their natural family by past removal policies and practices or removed from country to a welfare institution or a mission were twice as likely to be at high risk of clinically significant emotional or behavioural difficulties as children whose primary carer had not been forcibly separated from their natural family. These children also had higher rates of conduct and hyperactivity problems.
- Children whose primary carers had been forcibly separated from their natural families were over 1.5 times as likely to be at high risk of clinically significant conduct problems and 2.5 times as likely to be at high risk of clinically significant hyperactivity problems (Zubrick et al. 2005).

Data quality issues

National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

The NATSIHS uses the standard Indigenous status question. The NATSIHS sample was specifically designed to select a representative sample of Aboriginal and Torres Strait Islander Australians. It therefore overcomes the problem inherent in most national surveys with small and unrepresentative Indigenous samples. As with other surveys, the NATSIHS is subject to sampling and non-sampling errors. Calculations of standard errors and significance testing help to identify the accuracy of the estimates and differences.

Information recorded in this survey is essentially 'as reported' by respondents. The ABS makes every effort to collect accurate information from respondents, particularly through careful questionnaire design, pre-testing of questionnaires, use of trained interviewers and assistance from Indigenous facilitators. Nevertheless, imperfect recall or individual interpretation of survey questions may affect some responses.

Non-Indigenous comparisons are available through the National Health Survey (NHS). The NHS was conducted in Major cities and regional and remote areas, but very remote areas were excluded from the sample. Time series comparisons are available through the 1995 and 2001 National Health Survey.

In remote communities there were some modifications to the NATSIHS content in order to accommodate language and cultural appropriateness in traditional communities and help respondents understand the concepts. Some questions were excluded and some reworded. Also, paper forms were used in communities in remote areas and computer-assisted interview (CAI) instruments were used in non-remote areas. The CAI process included built-in edit checks and sequencing.

Further information on NATSIHS data quality issues can be found in the NATSIHS 2004–05 publication (ABS 2006).

National Aboriginal and Torres Strait Islander Social Survey (NATSISS)

The NATSISS is conducted in all states and territories and includes remote and non-remote areas. The 2008 sample was 13,300 persons in 6,900 households, with a response rate of 82 per cent of households. Up to three randomly selected Indigenous people were chosen from selected households to participate in the survey. Trained ABS interviewers conducted the survey using face-to-face interviews. In non-remote areas interviewers used a notebook computer to record responses, while in remote areas a paper questionnaire was used. Interviewers obtained the consent of a parent or guardian before interviewing those aged 15 to 17 years. Indigenous persons usually resident in non-private dwellings such as hotels, motels, hostels, hospitals, short-stay caravan parks, prisons and other correctional facilities were excluded.

The NATSISS uses the standard Indigenous status question. The NATSISS sample was specifically designed to select a representative sample of Aboriginal and Torres Strait Islander Australians.

As with other surveys, the NATSISS is subject to sampling and non-sampling errors.

Care has been taken to ensure that the results of this survey are as accurate as possible. Trained ABS officers conducted all interviews. However, some factors may affect the reliability of the data.

Information recorded in this survey is 'as reported' by respondents, and therefore may differ from information available from other sources or collected using different methodologies.

Data on health-related indicators have been age-standardised to the 2001 total Australian population to account for differences in the age structures of the states and territories and the Indigenous and non-Indigenous population.

Time series comparisons for the 2008 survey are available through the 1994 National Aboriginal and Torres Strait Islander Survey and the 2002 NATSISS. However not all data elements align across the three (1994, 2001 and 2008) NATSISS surveys, hence care is required when reviewing results across the three surveys. There are no strictly comparable non-Indigenous results available for the 2008 NATSISS as the latest General Social Survey (which has been used in the past to compare with Indigenous results from the NATSISS) was run in 2006, with the next being run in 2010–11. Data from other ABS surveys run in 2008 may however be used to obtain rough non-Indigenous comparisons for some data items. Where possible ABS has provided recommendations for non-Indigenous data comparisons and these have been adopted in this report.

The 2008 NATSISS has a relatively large level of under-coverage when compared to other ABS surveys. There was also an increase in undercoverage compared to previous ABS Indigenous surveys. For example, the estimated undercoverage in the 2004–05 National Aboriginal and Torres Strait Islander Health Survey was 42%. The overall undercoverage rate for the 2008 NATSISS is approximately 53% of the in-scope population at the national level. This rate varies across the states and territories (ABS 2010b).

Further information on NATSISS data quality issues can be found in the *National Aboriginal and Torres Strait Islander Social Survey: Users' guide*, 2008 (ABS 2010b).

Western Australian Aboriginal Child Health Survey

Survey data are subject to sampling and non-sampling errors. Confidence intervals are published with the data to provide a guide to the reliability of the estimates. Non-sampling errors can occur in surveys owing to questionnaire design problems, respondent difficulty recalling information/lack of appropriate records, and errors made in the recording and processing of the data. Every effort was made to minimise non-sample errors in this survey.

General practitioner data (BEACH)

Information about general practitioner (GP) encounters is available from the Bettering the Evaluation and Care of Health (BEACH) survey. The BEACH data on Indigenous Australians should be treated with care. First, the sample frame has not been designed to produce statistically significant results for population subgroups such as Indigenous Australians. Second, the identification of Indigenous Australians is not complete. In the BEACH survey, 'not stated' responses to the Indigenous identification question are often higher than the 'yes' responses. It can be assumed, therefore, that the survey consistently undercounts the number of Indigenous Australians visiting GPs, but the extent of this under-count is not measurable.

Hospital separations data

Separations

Differing admission practices among the jurisdictions and from year to year, and differing levels and patterns of service delivery can affect the number and pattern of hospitalisations.

In all states and territories, the proportion of Aboriginal and Torres Strait Islander separations in public hospitals increased over the 11-year period 1996–97 to 2007–08, from 3.7% to 5.4%. In private hospitals, it stayed around 0.2% to 0.3% until 2003–04, when there was a modest increase to 0.5%.

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).

'Not stated' responses to the Indigenous status question were around 1% in public hospitals and 4% in private hospitals in 2007–08. This is a reduction from 1998–99 when 2% of responses in public hospitals and 8% of responses in private hospitals had a 'not stated' Indigenous status (AIHW 2009).

Under-identification

The incompleteness of Indigenous identification means the number of hospital separations recorded as Indigenous is an underestimate of hospitalisations involving Aboriginal and Torres Strait Islander people. Based on an analysis of a sample of data conducted in 2010, an estimated 89% of Indigenous patients were correctly identified in Australian public hospital admission records in 2007–08 (AIHW 2010c). In other words, 11% of Indigenous patients were not identified, and the 'true' number of hospital admissions for Indigenous persons was about 12% higher than reported.

For several years, Queensland, South Australia, Western Australia and the Northern Territory reported that Indigenous status in their hospital separations data were of acceptable quality (AIHW 2007a). The AIHW, however, has recently completed an assessment of the level of Indigenous under-identification in hospital data in all states and territories. Results from this assessment indicate that all hospitals in New South Wales, Victoria, Queensland, Western Australia and South Australia and public hospitals in the Northern Territory have adequate Indigenous identification (80% or higher overall levels of Indigenous identification in public hospitals only) in their separations data. For Tasmania and the Australian Capital Territory, the levels of Indigenous identification were not considered acceptable for analysis purposes. It has therefore been recommended that reporting of Indigenous hospital separations data be limited to information from New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory, individually or in aggregate. The proportion of the Indigenous population that these six jurisdictions cover is 96%. The following caveats have also been recommended for analysis of hospitalisation data from selected jurisdictions (AIHW 2010c):

- Interpretation of results should take into account the relative quality of the data from the jurisdictions included.
- Interpretation of time series analysis should take into account the possible contribution of changes over time in ascertainment of Indigenous status to changes in hospitalisation rates for Indigenous people.
- Bias may have been introduced due to the sampling method of hospitals used in the study. Hospitals with high proportions of Indigenous separations were used in the study to ensure sufficient numbers of Indigenous people were included in the study. Proportions of Indigenous separations should therefore not be taken to represent the NHMD overall.
- Hospitalisation data for these six jurisdictions are not necessarily representative of other jurisdictions.
- From the AIHW study, it was possible to produce correction factors for the level of Indigenous under-identification in hospital data for each jurisdiction and at the national level.

Remoteness areas

There were acceptable levels of Indigenous identification for all remoteness areas, ranging from 80% in *Major cities* to 97% in *Remote* and *Very remote* areas. The quality of data supports analyses by remoteness areas, in aggregate, across states and territories. However, the sample size was insufficient to allow assessment of the quality of Indigenous identification by remoteness area within jurisdictions.

Numerator and denominator

Rate and ratio calculations rely on good numerator and denominator data. There are changes in the completeness of identification of Indigenous people in hospital records. These may take place at different rates from changes in the identification of Indigenous people in other administrative collections and population censuses. Denominators used in this analysis are sourced from *Experimental estimates and projections: Aboriginal and Torres Strait Islander Australians 1991 to 2021* (ABS 2009).

Data sources for injury emergency episodes

The National Non-admitted Patient Emergency Department Care Database is a national collection of de-identified data on emergency department episodes based on the Non-admitted Emergency Department Care National Minimum Data Set. This data set includes the standard Indigenous status question but does not include injury coding (for example, ICD-10). The Injury Surveillance National Minimum Data Set includes injury coding (components of ICD-10) but does not include demographic details such as Indigenous status. Therefore, there is currently no national minimum data set containing both Indigenous status and injury coding.

Mortality data

Deaths

The mortality rate for Indigenous Australians can be influenced by identification of Indigenous deaths, late registration of deaths, and changes to death forms and/or processing systems. Because of the small size of the Indigenous population, these factors can significantly affect trends over time and between jurisdictions. At present, there is considerable variation across the states and territories in the completeness of mortality and hospital data for Indigenous people.

Indigenous status question

All jurisdictions comply with the standard wording for the Indigenous status question and categories for their death registration forms. However, while data is provided to the ABS for the Indigenous status question for 99% of all deaths, there are concerns regarding the accuracy of the data. The Indigenous status question is not always directly asked. Detailed breakdowns of Indigenous deaths are therefore only provided for five jurisdictions – New South Wales, Queensland, South Australia, Western Australia and the Northern Territory. Indigenous status information from the two sources is kept in the database, although this may not be consistent for an individual.

In 2004, a new range of codes were introduced as part of the effort to standardise and improve Indigenous identification in data collection nationally.

Indigenous Mortality Quality Study

The ABS conducted a number of quality studies based on the 2006 Census of Population and Housing and other data sets as part of the Census Data Enhancement (CDE) project. The CDE Indigenous Mortality Quality Study linked Census records with death registration records and examined differences in the reporting of Indigenous status across the two data sets.

There were 106,945 registered death records available to be linked in the study. Of these, 1,800 (1.7%) were identified as Indigenous on the death registration. Of the total registered deaths, 98,898 (92%) were linked to a Census record. However, a much lower linkage rate was achieved for Indigenous deaths, with more than one-quarter of all Indigenous death registrations (26% or 473) unable to be linked to a Census record. As a result, Indigenous death records were over-represented in the unlinked death registrations.

As well as being over-represented in unlinked death registrations, unlinked Indigenous death records had different characteristics to linked Indigenous death registrations. Indigenous death records with older ages at death and from non-remote regions were more likely to be linked.

Under-identification

Almost all deaths in Australia are registered. However, the Indigenous status of the deceased is not always recorded/recorded correctly. The incompleteness of Indigenous identification means the number of deaths registered as Indigenous is an underestimate of deaths occurring in the Aboriginal and Torres Strait Islander population (ABS 1997). As a result, the observed differences between Indigenous and non-Indigenous mortality are under-estimates of the true differences.

Longer term mortality trend data are limited to three jurisdictions (Western Australia, South Australia and the Northern Territory) with 10 years of adequate identification of Indigenous deaths in their recording systems (ABS & AIHW 2005).

The quality of the time series data is also influenced by the late inclusion of a 'not stated' category for Indigenous status in 1998. Before this time, the 'not stated' responses were probably included with the non-Indigenous.

The ABS calculated the implied coverage (identification) of Indigenous deaths for the period 2002–2006 using population estimates: New South Wales 45%, Victoria 32%, Queensland 51%, South Australia 62%, Western Australia 72%, Northern Territory 90%, Australia 55% (Tasmania and the Australian Capital Territory were not calculated because of small numbers) (ABS 2007).

Note that different causes may have levels of under-identification that differ from the all-cause coverage estimates. Note also that the quality of the cause of death data depends on every step of the process of recording and registering deaths (including the documentation available at each step of the process) from certification to coding of cause of death.

There are also current concerns about data quality for causes of death, especially relating to external causes of death of all Australians (not just Indigenous) (ABS 2006).

Problems associated with identification result in an underestimation of deaths and hospital separations for Indigenous people.

Numerator and denominator

Rate and ratio calculations rely on good numerator and denominator data. There are changes in the completeness of identification of Indigenous people in death records. These may take place at different rates from changes in the identification of Indigenous people in other administrative collections and population censuses. Denominators used here are sourced from *Experimental estimates and projections: Aboriginal and Torres Strait Islander Australians 1991 to 2021* (ABS 2009).

National Community Mental Health Care Database (NCMHCD)

The quality of the Indigenous identification in this database varies by jurisdiction and should be interpreted with caution.

The number and rate of service contacts per 1,000 population for Aboriginal and Torres Strait Islander peoples varies among the states and territories.

The Indigenous status data should be interpreted with caution due to the varying and, in some instances, unknown quality of Indigenous identification across jurisdictions. The 'other Australians' category includes contacts where Indigenous status was missing or not reported (around 7% of all contacts). All states and territories use the standard ABS question of Indigenous status. For a number of jurisdictions, the NCMHCD data reported for the 'both Aboriginal and Torres Strait Islander' category are suspected to be affected by misinterpretation of the category to include non-Aboriginal and Torres Strait Islander peoples (for example, Maori and South Sea Islanders) and use of the category as an 'Indigenous, not further specified'.

However, they believe that there are quality issues regarding the coding of more specific details (that is, 'Aboriginal', 'Torres Strait Islander', 'both Aboriginal and Torres Strait Islander'). Queensland, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory reported that the quality of their data was suitable for analysis. South Australia indicated that there has been limited analysis of the quality of Indigenous status data. Therefore, the quality of the data is uncertain at this stage.

All state and territory health authorities provided information on the quality of the data for the NCMHCD 2006–2007. The Northern Territory estimates that there could be a deficit of between 25–35% of service contact records. Coverage for most other jurisdictions is estimated to be between 95–100%.

The numerator includes people who receive a service in one jurisdiction but normally reside in another. There will be some mismatch between numerator and denominator in areas with cross-border flows.

National Residential Mental Health Care Database (NRMHCD)

The quality of the Indigenous identification in this database varies by jurisdiction.

The number and rate of service contacts per 1,000 population for Aboriginal and Torres Strait Islander peoples varies among the states and territories. This may reflect variations in completeness of Indigenous identification among patients or different patterns of service use by Indigenous and non-Indigenous persons.

Data from the NRMHCD on Indigenous status should be interpreted with caution because of the varying quality and completeness of Indigenous identification across all jurisdictions. Only Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory considered their Indigenous status data of acceptable quality.

List of symbols used in tables

n.a.	not available
–	rounded to zero (including null cells)
0	zero
..	not applicable
n.e.c.	not elsewhere classified
n.f.d.	not further defined
n.p.	not available for publication but included in totals where applicable, unless otherwise indicated

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