2.20 Risky and high-risk alcohol consumption

The proportion of Aboriginal and Torres Strait Islander peoples who consume alcohol at risky or high-risk levels

Data sources

Data for this measure come from the National Aboriginal and Torres Strait Islander Health Survey, the National Hospital Morbidity Database, the National Mortality Database and the Bettering the Evaluation and Care of Health Survey.

National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

The 2004–05 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. The survey was conducted in remote and non-remote areas of Australia and collected a range of information from Indigenous Australians about health-related issues including health-related actions, health risk factors, health status, socioeconomic circumstances and women's health. 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 National Health Survey (NHS).

The NATSIHS collected information on risky and high-risk alcohol consumption, which is defined as that which exceeds the National Health and Medical Research Council (NHMRC) guidelines for low risk drinking, in the short-term or long-term. These guidelines are outlined below.

Risky/high-risk drinking—adult males

- Short-term risky drinking for males is consumption in excess of 6 but less than 11 standard drinks on any one day.
- Short-term high-risk drinking for males is consumption of 11 or more standard drinks on any one day.
- Long-term risky drinking is average consumption in excess of 4 but less than 6 standard drinks per day amounting to 29 but less than 42 standard drinks per week.
- Long-term high-risk drinking is average consumption in excess of 6 standard drinks per day amounting to 43 or more standard drinks per week.

Risky/high-risk drinking—adult females

- Short-term risky drinking is consumption in excess of 4 but less than 7 standard drinks on any one day.
- Short-term high-risk drinking is consumption in excess of 7 or more standard drinks on any one day.
- Long-term risky drinking is average consumption in excess of 2 but less than 5 standard drinks per day amounting to 15 but less than 28 standard drinks per week.
- Long-term high-risk drinking is consumption in excess of 4 standard drinks per day which amounts to 29 or more standard drinks per week.

Bettering the Evaluation and Care of Health (BEACH) survey

Information about encounters in general practice is available from the Bettering the Evaluation and Care of Health (BEACH) survey which is conducted by the AIHW Australian GP Statistics and Classification Centre, University of Sydney. Information is collected from a random sample of approximately 1,000 general practitioners (GPs) from across Australia each year. A sample of 100 consecutive encounters is collected from each GP.

The number of Indigenous patients identified in the BEACH survey is likely to be underestimated. This is because some GPs might not ask about Indigenous status, or the patient may choose not to identify (AIHW 2002). The estimates presented here are also derived from a relatively small sample of GP encounters involving Indigenous Australians.

Because of a late inclusion of a 'not stated' category of Indigenous status in 2001–02 (before which 'not stated' responses were included with non-Indigenous encounters), 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 2002–03 to 2006–07, during which there were 7,542 GP encounters with Aboriginal and Torres Strait Islander patients recorded in the survey, representing 1.5% of total GP encounters in the survey.

The 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. Information on the characteristics, diagnoses and care of admitted patients in public and private hospitals is provided annually to the AIHW by state and territory health departments.

Data are presented for the six jurisdictions which have been assessed by the AIHW as having adequate identification of Indigenous hospitalisations in 2004–05—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.

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 July 2004 to June 2006. 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, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending a change in a 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.

The National Mortality Database

The National Mortality Database is a national collection of de-identified information for all deaths in Australia and is maintained by the AIHW. Information on the characteristics and causes of death of the deceased is provided by the Registrars of Births, Deaths and Marriages and coded nationally by the ABS. Information on the cause of death is supplied by the medical practitioner certifying the death, or by a coroner. The data are updated each calendar year.

Although the identification of Indigenous deaths is incomplete in all state and territory registration systems, four jurisdictions (Queensland, Western Australia, South Australia and the Northern Territory) have been assessed by the ABS and the AIHW as having adequate identification. These four jurisdictions represent approximately 60% of the Indigenous population of Australia. Data are presented by state/territory of usual residence rather than state/territory where death occurs.

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

Data have been combined for the 5-year period 2002–2006 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.

Data analyses

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

Self-reported alcohol consumption and risk levels

The 2004–05 NATSIHS collected information on alcohol consumption and risk level of Aboriginal and Torres Strait Islander peoples.

- In 2004–05, approximately 50% of Indigenous Australians aged 18 years and over reported having consumed alcohol in the week before the survey, and around one-quarter (24%) of Indigenous adults reported they had not consumed alcohol in the previous 12 months.
- Overall, approximately 17% of Indigenous adults reported drinking at long-term risky/high-risk levels. Of those who consumed alcohol in the week before the survey, around one-third (34%) reported drinking at long-term risky/high-risk levels.
- Approximately 55% of Indigenous adults drank at short-term risky/high-risk levels in the previous 12 months and 19% drank at short-term risky/high-risk levels at least once a week in the previous 12 months.
- 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 previous 12 months. Overall, Indigenous and non-Indigenous Australians were equally as likely to drink at long-term risky/high-risk levels in the

week before the survey (15% and 14% respectively); however, of those who drank, Indigenous adults were around 1.5 times as likely as non-Indigenous adults to drink at long-term risky/high-risk levels. Indigenous adults were twice as likely as non-Indigenous Australians to have abstained from alcohol consumption in the previous 12 months.

Alcohol risk levels by age

- Indigenous Australians aged 35–44 years were most likely to report drinking at long-term risky/high-risk levels in the previous week (20%) (Table 2.20.1).
- Indigenous Australians were more likely than non-Indigenous Australians to report drinking at short-term risky/high-risk levels at least once in the previous 12 months across all age groups, although the levels are close for the age group 18–24 years.
- A significantly higher proportion of Indigenous Australians aged 25–34 and 35–44 years drank at long-term risky/high-risk levels in the previous week than non-Indigenous Australians of the same age.

Table 2.20.1: Alcohol risk levels,[a] by Indigenous status and age, persons aged 18 years and over, 2004–05

	Age group (years)														
	18–24		25–34		35–44		45–54		55 and over		Total non age-standardised		Total age-standardised		
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Rate ratio
	Per cent														
Abstainers[b]	16*	12*	18*	12*	22*	12*	31*	15*	46*	22*	24*	15*	29	15	1.9*
Short-term risk[c]															
Drank at risky/high-risk levels in last 12 months[d]	64	63	64*	56*	59*	46*	45*	35*	22	16	55*	39*	47	40	1.2*
Drank at risky/high-risk levels at least once a week[e]	23*	15*	20*	9*	22*	9*	16*	8*	9*	4*	19*	8*	17	8	2.1*
Long-term risk[f]															
Low	33*	47*	36*	51*	34*	52*	31*	50*	21*	47*	32*	49*	30	49	0.6*
Risky or high-risk	16	14	17*	13*	20*	15*	17	16	10	12	17*	14*	15	14	1.1
Total long-term risk[g]	*50**	*61**	*53**	*64**	*54**	*66**	*48**	*66**	*32**	*58**	*49**	*63**	*46*	*63*	*0.7**
Total[h][i]	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**. .**
Total number ('000)	**56.7**	**1,857.1**	**69.8**	**2,761.4**	**59.1**	**2,899.6**	**39.6**	**2,705.6**	**33.2**	**4,529.7**	**258.3**	**14,753.3**	**258.3**	**14,753.3**	**. .**

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

(a) Risk level based on Australian Alcohol Guidelines 2000.

(b) No alcohol consumed in previous 12 months.

(c) Based on responses to questions in 2004–05 NHS/NATSIHS about frequency of consumption of specified number of drinks in previous year. The number of drinks was based on the NHMRC guidelines for risky and high-risk short-term alcohol consumption for males and females.

(d) Persons who consumed alcohol at specified risky/high-risk levels in the short-term on at least one occasion in the previous 12 months.

(e) Persons who consumed alcohol at specified risky/high-risk levels in the short-term at least once a week in the previous 12 months.

(f) Risk level based on consumption in week before the interview.

(g) Includes persons whose risk level was reported as 'not known'.

(h) Includes persons who consumed alcohol more than 1 week but less than 12 months before the survey.

(i) Includes persons who reported time since last consumed alcohol 'not known'.

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

Alcohol risk levels by sex

- A higher proportion of Indigenous females than Indigenous males reported abstaining from alcohol consumption in the 12 months prior to survey (30% compared with 17%) (Table 2.20.2).
- Indigenous males were more likely to report drinking at short-term and long-term risky/high-risk levels than Indigenous females.
- A higher proportion of Indigenous females than Indigenous males reported they had not consumed alcohol in the previous 12 months (30% compared with 17%).
- Indigenous males and females were two and three times as likely as non-Indigenous males and females to report drinking at short-term risky/high-risk levels at least once a week in the previous 12 months.
- Indigenous males were more likely to report drinking at long-term risky/high-risk levels in the week before the survey than non-Indigenous males (18% compared with 15%). The proportions of Indigenous and non-Indigenous females reporting drinking at long-term risky/high-risk levels were similar.

Table 2.20.2: Alcohol risk levels,[a] by Indigenous status and sex, persons aged 18 years and over, 2004–05 (per cent)

	Non age-standardised proportions				Age-standardised proportions					
	Males		Females		Males			Females		
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Ratio	Indig.	Non-Indig.	Ratio
	%	%	%	%	%	%		%	%	
Abstainers[b]	17*	11*	30*	20*	22*	1	2.1*	35	20	1.8*
Short-term risk[c]										
Drank at risky/high-risk levels in last 12 months[d]	64*	48*	46*	30*	56	48	0.8*	40	31	1.3*
Drank at risky/high-risk levels at least once a week[e]	24*	12*	15*	4*	21	12	1.8*	14	5	3.0*
Long-term risk[f]										
Low	38*	56*	27*	43*	36	50	0.7*	24	43	0.6*
Risky or high-risk	20*	15*	14	12	18	15	1.2*	13	12	1.1
Total long-term risk[g]	*58**	*71**	*41**	*55**	*55*	*71*	*0.8**	*38*	*55*	*0.7**
Total[h][i]	**100**	**100**	**100**	**100**	**100**	**100**		**100**	**100**	
Total number	**120,479**	**7,257,683**	**137,818**	**7,495,573**	**120,479**	**7,257,683**	**. .**	**137,818**	**7,495,573**	**. .**

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

(a) Risk level based on Australian Alcohol Guidelines 2000.

(b) No alcohol consumed in previous 12 months.

(c) Based on responses to questions in 2004–05 NHS/NATSIHS about frequency of consumption of specified number of drinks in previous year. The number of drinks was based on the NHMRC guidelines for risky and high-risk short-term alcohol consumption for males and females.

(d) Persons who consumed alcohol at specified risky/high-risk levels in the short-term on at least one occasion in the previous 12 months.

(e) Persons who consumed alcohol at specified risky/high-risk levels in the short-term at least once a week in the previous 12 months.

(f) Risk level based on consumption in week before the interview.

(g) Includes persons whose risk level was reported as 'not known'.

(h) Includes persons who consumed alcohol more than 1 week but less than 12 months before the survey.

(i) Includes persons who reported time since last consumed alcohol 'not known'.

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

Alcohol risk levels by state/territory

- The proportion of Indigenous adults who drank at long-term risky/high-risk levels ranged from 8% in the Northern Territory to 19% in Queensland and Western Australia (Table 2.20.3a).
- Indigenous Australians were more likely than non-Indigenous Australians to report drinking at short-term risky/high-risk levels at least once a week in all states and territories. The proportion of Indigenous and non-Indigenous Australians reporting drinking at long-term risky/high-risk levels in the previous week was similar across all states and territories (Table 2.20.3b).

Table 2.20.3a: Alcohol risk levels,[a] Indigenous persons aged 18 years and over, by state/territory, 2004–05

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Per cent				
Abstainers[b]	19	16	21	26	23	11	12	48	24
Short-term risk[c]									
Drank at risky/high-risk levels in last 12 months[d]	56	58	59	57	49	54	59	40	55
Drank at risky/high-risk levels at least once a week[e]	19	17	18	27	19	14	17	16	19
Long-term risk[f]									
Drank at risky/high-risk levels in last week	17	16	19	19	17	13	11	8	16
Total number	**75,001**	**16,516**	**70,623**	**36,542**	**14,480**	**9,477**	**2,300**	**33,358**	**258,297**

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

(a) Risk level based on Australian Alcohol Guidelines 2000.

(b) No alcohol consumed in previous 12 months.

(c) Based on responses to questions in 2004–05 NHS/NATSIHS about frequency of consumption of specified number of drinks in previous year. The number of drinks was based on the NHMRC guidelines for risky and high-risk short-term alcohol consumption for males and females.

(d) Persons who consumed alcohol at specified risky/high-risk levels in the short-term on at least one occasion in the previous 12 months.

(e) Persons who consumed alcohol at specified risky/high-risk levels in the short-term at least once a week in the previous 12 months.

(f) Risk level based on consumption in the week before the interview.

Source: ABS and AIHW analysis of 2004–05 NATSIHS.

Table 2.20.3b: Alcohol risk levels,[a] persons aged 18 years and over, by Indigenous status and state/territory, 2004–05

	NSW		Vic		Qld		WA		SA		Tas		ACT		NT[b]	
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.
								Per cent								
Abstainers[c]	23*	17*	19	16	28*	13*	30*	14*	34*	13*	14	11	11[g]	11	51	n.a.
Short-term risk[d]																
Drank at risky/high-risk levels in last 12 months[e]	49*	37*	50*	38*	51*	42*	43	42	47	43	47	44	51*	40*	37	n.a.
Drank at risky/high-risk levels at least once a week[f]	17*	7*	17*	7*	16*	9*	18*	8*	22*	10*	13	10	15*[g]	6*	15	n.a.
Long-term risk[h]																
Drank at risky/high-risk levels in last week	17	13	17[h]	12	18	14	16	15	16	16	13	12	9[g]	14	7	n.a.
Total number	**75,001**	**4,970,170**	**16,516**	**3,758,032**	**70,623**	**2,790,801**	**14,480**	**1,138,920**	**36,542**	**1,418,543**	**9,477**	**347,075**	**2,300**	**239,879**	**33,358**	**n.a.**

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

(a) Risk level based on Australian Alcohol Guidelines 2000.

(b) Non-Indigenous data not available for the Northern Territory because of small sample size. Northern Territory records for non-Indigenous people contribute to the national estimates but are insufficient to support reliable estimates for the Northern Territory.

(c) No alcohol consumed in previous 12 months.

(d) Based on responses to questions in 2004–05 NHS/NATSIHS about frequency of consumption of specified number of drinks in previous year. The number of drinks was based on the NHMRC guidelines for risky and high-risk short-term alcohol consumption for males and females.

(e) Persons who consumed alcohol at specified risky/high-risk levels in the short-term on at least one occasion in the previous 12 months.

(f) Persons who consumed alcohol at specified risky/high-risk levels in the short-term at least once a week in the previous 12 months.

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

(h) Risk level based on consumption in the week before the interview.

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

Alcohol risk levels by remoteness

- Indigenous adults in remote areas were more likely than those in non-remote areas to report drinking at short-term risky/high risk-levels in the week before the interview. Similar proportions of Indigenous Australians in remote and non-remote areas reported drinking at long-term risky/high-risk levels in the week before the interview (15% and 17%) (Table 2.20.4). Indigenous adults in remote areas were much more likely to have abstained from alcohol consumption in the previous 12 months than Indigenous adults in non-remote areas (38% compared with 19%).

Table 2.20.4: Alcohol risk levels,[a] by remoteness, Indigenous persons aged 18 years and over, 2004–05

	Non-remote	Remote	Total
		Per cent	
Abstainers[b]	19	38	24
Short-term risk[c]			
Drank at risky/high-risk levels in last 12 months[d]	57	49	55
Drank at risky/high-risk levels at least once a week in last 12 months[e]	18	23	19
Long-term risk[f]			
Drank at risky or high-risk levels in last week	17	15	16
Total number	**185,515**	**72,782**	**25,8297**

(a) Risk level based on Australian Alcohol Guidelines 2000.

(b) No alcohol consumed in previous 12 months.

(c) Based on responses to questions in 2004–05 NHS/NATSIHS about frequency of consumption of specified number of drinks in previous year. The number of drinks was based on the NHMRC guidelines for risky and high-risk short-term alcohol consumption for males and females.

(d) Persons who consumed alcohol at specified risky/high-risk levels in the short-term on at least one occasion in the previous 12 months.

(e) Persons who consumed alcohol at specified risky/high-risk levels in the short-term at least once a week in the previous 12 months.

(f) Risk level based on consumption in the week before the interview.

Source: ABS and AIHW analysis of 2004–05 NATSIHS.

Alcohol risk levels by selected health and population characteristics

- The proportion of Indigenous Australians aged 18 years and over who drank at long-term risky/high-risk levels and reported their health as fair/poor was similar to the proportion of Indigenous Australians in the total population who reported their health as fair/poor (Table 2.20.5).
- Indigenous Australians who spoke English as their main language at home or were in the highest (4th and 5th) quintiles of household income were more likely to drink at long-term risky/high-risk levels than Indigenous Australians who spoke a language other than English as their main language or were in the lowest (1st) quintile of household income (Table 2.20.6).
- Indigenous Australians who were not in the labour force were less likely to report drinking at short-term or long-term risky/high-risk levels than Indigenous Australians who were employed or unemployed (Table 2.20.6).

Table 2.20.5: Alcohol risk levels,[a] by self-assessed health status, Indigenous persons aged 18 years and over, 2004–05

	Long-term[b]	Short-term[c]		Total population
Health status	Drank at risky/high-risk levels in last week	Drank at risky/high-risk levels in last 12 months[d]	Drank at risky/high-risk levels at least once a week in last 12 months[e]	Indigenous persons aged 18 years and over
		Per cent		
Excellent/very good	35	41	36	40
Good	40	38	42	36
Fair/poor	25	21	22	24
Total	**100**	**100**	**100**	**100**

(a) Risk level based on Australian Alcohol Guidelines 2000.

(b) Based on responses to questions in 2004–05 NHS/NATSIHS about frequency of consumption of specified number of drinks in previous year. The number of drinks was based on the NHMRC guidelines for risky and high-risk short-term alcohol consumption for males and females.

(c) Risk level based on consumption in the week before the interview.

(d) Persons who consumed alcohol at specified risky/high-risk levels in the short-term on at least one occasion in the previous 12 months.

(e) Persons who consumed alcohol at specified risky/high-risk levels in the short-term at least once a week in the previous 12 months.

Source: ABS and AIHW analysis of 2004–05 NATSIHS.

Table 2.20.6: Alcohol risk level, by selected population characteristics, Indigenous persons aged 18 years and over, 2004–05

	Long-term risk[a]	Short-term risk[b]	
	Drank at risky/high-risk levels in last week	Drank at risky/high-risk levels in last 12 months[c]	Drank at risky/high-risk levels at least once a week in last 12 months[d]
		Per cent	
Main language spoken at home			
English	18	57	20
Language other than English	9	39	16
Location			
Remote	15	49	23
Non-remote	17	57	18
Household income			
1st quintile (lowest)	15	49	20
4th and 5th quintile (highest)	20	63	15
Employment			
Employed CDEP	21	60	32
Employed non-CDEP	19	62	18
Total employed	*19*	*61*	*21*
Unemployed	20	67	23
Not in the labour force	12	43	16
Housing tenure type			
Owner[e]	19	55	14
Renter	15	54	21
Other[f]	25[g]	65	22
Treatment when seeking health care in last 12 months compared with non-Indigenous people			
Worse	16	56	19
The same or better	16	53	19

(a) Risk level based on Australian Alcohol Guidelines 2000 for risk of harm in the long-term.

(b) Based on responses to questions in 2004–05 National Health Survey/NATSIHS about frequency of consumption of specified number of standard drinks in the previous year. The number of standard drinks is based on NHMRC guidelines for risky and high-risk short-term alcohol consumption for males and females.

(c) Persons who consumed alcohol at specified risky/high-risk levels in the short-term on at least one occasion in the previous 12 months.

(d) Persons who consumed alcohol at specified risky/high-risk levels in the short-term at least once a week in the previous 12 months

(e) Includes owners with a mortgage and owners without a mortgage.

(f) Includes persons living under life tenure schemes, participants of rent/buy (or shared equity) schemes, persons living rent-free, boarders and other tenure type.

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

CDEP = Community Development Employment Projects scheme.

Source: ABS and AIHW analysis of 2004–05 NATSIHS.

Hospitalisations

Table 2.20.7 presents hospitalisations of Indigenous and other Australians for principal diagnoses related to alcohol use in New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory combined, over the period July 2004 to June 2006.

- There were 6,542 hospitalisations of Indigenous Australians in the six jurisdictions combined with a principal diagnosis related to alcohol use. This represented approximately 1.4% of all hospitalisations of Indigenous Australians in these jurisdictions.
- Indigenous males were hospitalised for diagnoses related to alcohol use at five times the rate of other males, and Indigenous females were hospitalised for alcohol-related conditions at three times the rate of other females.
- Over three-quarters (79%) of all hospitalisations of Indigenous Australians that were related to alcohol use had a principal diagnosis of mental and behavioural disorders due to alcohol use (5,182 hospitalisations). The most common type of mental and behavioural disorder due to alcohol use was acute intoxication, for which Indigenous Australians were hospitalised at eight times the rate of other Australians. Indigenous Australians were hospitalised at 10 times the rate of other Australians for mental and behavioural disorders due to withdrawal state and 23 times the rate of other Australians for psychotic disorder.
- Indigenous Australians were hospitalised for alcoholic liver disease and for accidental poisoning by alcohol at five times the rate of other Australians.

Table 2.20.7: Hospitalisations for principal diagnoses related to alcohol use, NSW, Vic, Qld, WA, SA and NT, July 2004 to June 2006[(a)(b)(c)(d)]

	Males					Females					Persons				
	Number		No. per 1,000[(e)]			Number		No. per 1,000[(e)]			Number		No. per 1,000[(e)]		
Principal diagnosis	**Indig.**	**Other[(f)]**	**Indig.**	**Other[(f)]**	**Ratio[(g)]**	**Indig.**	**Other[(f)]**	**Indig.**	**Other[(f)]**	**Ratio[(g)]**	**Indig.**	**Other[(f)]**	**Indig.**	**Other[(f)]**	**Ratio[(g)]**
Mental & behavioural disorders due to alcohol use (F10)															
Acute intoxication (F10.0)	1,447	10,404	4.3	0.5	8.0*	1,017	6,324	2.6	0.3	7.7*	2,464	16,728	3.4	0.4	7.7*
Dependence syndrome (F10.2)	900	20,504	2.6	1.0	2.5*	357	18,073	1.0	0.9	1.1	1,257	38,577	1.8	1.0	1.8*
Withdrawal state (F10.3, F10.4)	747	3,892	2.2	0.2	11.1*	155	1,203	0.4	0.1	6.3*	902	5,095	1.3	0.1	9.6*
Psychotic disorder (F10.5)	177	418	0.5	0.0	21.9*	62	96	0.1	0.0	29.2*	239	514	0.3	0.0	22.7*
Harmful use (F10.1)	156	1,453	0.4	0.1	5.5*	83	970	0.2	0.1	3.9*	239	2,423	0.3	0.1	4.8*
Other[(h)] (F10.6– F10.9)	53	837	0.2	0.0	5.5*	28	222	0.1	0.0	11.6*	81	1,059	0.2	0.0	6.8*
Total F10 categories	*3,480*	*37,508*	*10.3*	*1.9*	*5.3**	*1,702*	*26,888*	*4.4*	*1.4*	*3.2**	*5,182*	*64,396*	*7.2*	*1.6*	*4.4**
Alcoholic liver disease (K70)	457	6,818	1.4	0.3	4.1*	339	2,019	1.0	0.1	9.8*	796	8,837	1.2	0.2	5.4*
Intentional self-poisoning by alcohol (X65)	110	3,329	0.3	0.2	1.7*	192	4,672	0.5	0.2	1.9*	302	8,001	0.4	0.2	1.8*
Accidental poisoning by alcohol (X45)	141	1,030	0.4	0.1	7.2*	45	1,008	0.1	0.1	2.1*	186	2,038	0.2	0.1	4.6*
Poisoning by alcohol undetermined intent (Y15)	36	670	0.1	0.0	2.7*	40	789	0.1	0.0	2.2*	76	1,459	0.1	0.0	2.4*
Total	**4,224**	**49,355**	**12.5**	**2.5**	**4.9***	**2,318**	**35,376**	**6.0**	**1.8**	**3.3***	**6,542**	**84,731**	**9.1**	**2.2**	**4.2***

(continued)

Table 2.20.7 (continued): Hospitalisations for principal diagnoses related to alcohol use, NSW, Vic, Qld, WA, SA and NT, July 2004 to June 2006[(a)(b)(c)(d)]

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

(l) Data are from public and most private hospitals. Exclude private hospitals in the Northern Territory.

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

(n) Financial year reporting.

(o) 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.

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

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

(r) Rate ratio Indigenous:other.

(s) Includes amnesic syndrome, residual or late onset psychotic disorder, other and unspecified mental and behavioural disorders due to alcohol use.

Source: AIHW analysis of National Hospital Morbidity Database.

Mortality

Table 2.20.8 presents deaths related to alcohol use of Indigenous Australians in Queensland, Western Australia, South Australia and the Northern Territory over the period 2002–2006.

- In Queensland, Western Australia, South Australia and the Northern Territory, there were 304 deaths of Indigenous Australians related to alcohol use (Table 2.20.8). This represented approximately 4.0% of total deaths of Indigenous Australians in these states and territories.
- Of all deaths related to alcohol use among Indigenous people, the majority were for alcoholic liver disease (212 deaths).
- Overall, Indigenous males died from alcohol-related causes at 7 times the rate of non-Indigenous males and Indigenous females died from alcohol-related causes at 12 times the rate of non-Indigenous females.
- Indigenous Australians died from mental and behavioural disorders due to alcohol use at 10 times the rate of non-Indigenous Australians, from alcoholic liver disease at 8 times the rate and from poisoning by alcohol at 9 times the rate.

Table 2.20.8: Deaths related to alcohol use, Qld, WA, SA and NT, 2002–2006[a][b][c][d][e]

	Males					Females					Persons				
	Number		No. per 100,000[f]			Number		No. per 100,000[f]			Number		No. per 100,000[f]		
Principal diagnosis	Indig.	Non-Indig.	Indig.	Non-Indig.	Ratio[g]	Indig.	Non-Indig.	Indig.	Non-Indig.	Ratio[g]	Indig.	Non-Indig.	Indig.	Non-Indig.	Ratio[g]
Alcoholic liver disease (K70)	131	939	30.8	5.0	6.2*	81	289	18.0	1.5	12.1*	212	1,228	24.1	3.2	7.6*
Mental & behavioural disorders due to alcohol use (F10)	57	312	16.8	1.7	9.8*	26	75	4.8	0.4	12.7*	83	387	10.2	1.0	10.0*
Poisoning by alcohol (X45, X65, Y15)	5	25	0.8	0.1	6.0*	n.p.	11	n.p.	0.1	n.p.	9	36	0.9	0.1	9.2*
Total	**193**	**1,276**	**48.4**	**6.8**	**7.1***	**111**	**375**	**23.8**	**1.9**	**12.3***	**304**	**1,651**	**35.2**	**4.3**	**8.2***

* Represents results with statistically significant differences in the Indigenous/non-Indigenous comparisons.

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

(b) Data are reported for Queensland, Western Australia, South Australia and the Northern Territory only. These four jurisdictions are considered to have adequate levels of Indigenous identification in mortality data. They do not represent a quasi-Australian figure.

(c) 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.

(d) Deaths are by year of registration.

(e) Excludes 35 deaths for which Indigenous status was not stated.

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

(g) Rate ratio Indigenous:non-Indigenous.

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

Source: AIHW analysis of National Mortality Database

General practitioner encounters

Information about GP encounters is available from the Bettering the Evaluation and Care of Health (BEACH) survey.

- In the period 2002–03 to 2006–07 there were 7,542 GP encounters with Aboriginal and Torres Strait Islander patients recorded in the survey, at which 11,219 problems were managed. Of these, 0.7% (83) were problems related to alcohol abuse.
- After adjusting for differences in the age distribution of Indigenous patients, alcohol abuse was managed at GP encounters with Indigenous patients at around three times the management rate at encounters with other patients.

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 and thus overcome 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 establish 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, some responses may be affected by imperfect recall or individual interpretation of survey questions.

Non-Indigenous comparisons are available through the National Health Survey (NHS). The NHS was conducted in Major Cities, Inner and Outer Regional areas and Remote areas, but Very Remote areas were excluded from the sample. Time series comparisons are available through the 1995 and 2001 National Health Surveys.

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.

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

Hospital separations data

Separations

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

Indigenous status question

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

(continued)

Data quality issues (continued)

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 peoples. For several years, Queensland, South Australia, Western Australia and the Northern Territory reported that Indigenous status in their hospital separations data was of acceptable quality (AIHW 2007). 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 New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory have adequate Indigenous identification (20% or less overall under-identification of Indigenous patients) in their hospital separations data. It has therefore been recommended that reporting of Indigenous hospital separations data be limited to aggregated information from New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory. The proportion of the Indigenous population covered by these six jurisdictions is 96%. The following caveats have also been recommended for analysis of hospitalisation data from selected jurisdictions (ABS & AIHW 2005):

- *Interpretation of results should take into account the relative quality of the data from the jurisdictions included (currently a small degree of Indigenous under-identification in data from Western Australia and the Northern Territory and relatively marked Indigenous under-identification in data from South Australia and Victoria).*
- *Data for these six jurisdictions over-represent Indigenous populations in less urbanised and more remote locations.*
- *Hospitalisation data for these six jurisdictions are not necessarily representative of those jurisdictions not included.*

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.

Numerator and denominator

Rate and ratio calculations rely on good numerator and denominator data. The changes in the completeness of identification of Indigenous people in hospital records may take place at different rates 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 2009 *(ABS 2004).*

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.

Indigenous status question

All jurisdictions comply with the standard wording for the Indigenous status question and categories for their death registration forms. However, New South Wales, Victoria, South Australia, the Northern Territory and the Australian Capital Territory all have slightly different wording from the national standard for the instruction on those with both Aboriginal and Torres Strait Islander origin (ABS & AIHW 2005). Although the wording is only slightly different, it would be ideal to have all jurisdictions asking the question in exactly the same way.

(continued)

Data quality issues (continued)

Under-identification

Almost all deaths in Australia are registered. However, the Indigenous status of the deceased is not always recorded or 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 underestimates of the true differences.

Although the identification of Indigenous deaths is incomplete in all states and territory registration systems, four jurisdictions (Queensland, South Australia, Western Australia and the Northern Territory) have been assessed by the ABS and AIHW as having adequate identification. Longer term mortality trend data are limited to three jurisdictions (South Australia, Western Australia and the Northern Territory) with 10 years of adequate identification of Indigenous deaths in their recording systems. 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%, Tasmania and the Australian Capital Territory were not calculated because of small numbers, Australia 55% (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 2006b).

Numerator and denominator

Rate and ratio calculations rely on good numerator and denominator data. The changes in the completeness of identification of Indigenous people in death records 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 2009 *(ABS 2004).*

Cause of death coding

Causes of death are based on the 10th revision of the International Classification of Diseases (ICD-10). Mortality coding using ICD-10 was introduced into Australia on 1 January 1997.

General practitioner data

Information about general practitioner 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 general practitioners, but the extent of this undercount is not measurable.

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