

2.25 Unsafe sexual practices

Proportion of Aboriginal and Torres Strait Islander peoples engaging in unsafe sexual practices

Data sources

Data are available from the National Perinatal Data Collection and the National Notifiable Diseases Surveillance System held at the Department of Health and Ageing.

National Notifiable Diseases Surveillance System

A set of 65 diseases and conditions are notifiable nationally to the National Notifiable Diseases Surveillance System (NNDSS), which is managed by the Australian Government Department of Health and Ageing.

Identification of Indigenous notifications in all states and territories is incomplete, with the level of completeness varying across diseases as well as jurisdictions. The NNDSS provided the AIHW with data on Indigenous status completeness by disease and jurisdiction. Using a cut-off of 50% completeness of Indigenous status Western Australia, South Australia, Tasmania and the Northern Territory were assessed to have adequate identification for chlamydia, syphilis, gonorrhoea and hepatitis C. Queensland and Victoria had insufficient Indigenous identification for chlamydia, but adequate identification for syphilis, gonorrhoea and hepatitis C; New South Wales only had adequate identification for hepatitis C and the Australian Capital Territory did not have adequate identification for any of the STIs. Only Queensland and the Northern Territory had adequate identification for donovanosis.

Current period data (2006–2008) for this indicator was extracted by the NNDSS in April 2010.

Although data on hepatitis C is included in this indicator, sexual transmission is not considered the main route of transmission, hepatitis C primarily occurs among those with a history of injecting drug use. Data for hepatitis C included in this indicator are for newly acquired notifications only (excluding Queensland, as hepatitis C data are reported in a separate category).

All categories of syphilis (including infectious, latent and unknown duration) have been included in the analysis in this indicator.

Detailed accounts of the methods of data collection and methods used by the National Notifiable Disease Surveillance System (NNDSS) within the Department of health and Ageing can be found here

< <http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-nndssintro.htm> >.

National Perinatal Data Collection

Data for this measure come from the Australian Institute of Health and Welfare (AIHW) National Perinatal Epidemiology and Statistics Unit National Perinatal Data Collection (NPDC).

Data on birthweight is collected as part of the Perinatal National Minimum Data Set. Each state and territory has a perinatal collection based on birth notifications completed by

midwives and other staff, using information obtained from mothers and from hospital and other records. Some of these data are provided in electronic format annually to the AIHW National Perinatal Epidemiology and Statistics Unit. Perinatal notification forms are completed in Australia for all births of 20 weeks or more gestation, or a birthweight of 400 grams or more.

All jurisdictions collect the Indigenous status of the mother of the baby. However, this data element does not provide the Indigenous status of the baby. Therefore, Indigenous births will be underestimated as babies born to Indigenous fathers and non-Indigenous mothers are not included in the data collection. Over the period 2005–2007 there were approximately 11,100 ABS registered births to Indigenous fathers only, which represented 31% of registered Indigenous births (ABS 2006, 2007, 2008).

Earlier years data are not available for Tasmania, as the 'not stated' category for Indigenous status was unable to be distinguished from the 'non-Indigenous' until 2005.

Data on mothers for whom Indigenous status was 'not stated' have been excluded from analysis. In 2007, there were 282 births with a 'not stated' Indigenous status (0.1%) in the NPDC.

The World Health Organization (WHO) defines low birthweight as less than 2,500 grams.

Analyses

Notifications for chlamydia, syphilis, gonorrhoea and donovanosis

Notifications of sexually transmissible infections are an indicator of unsafe sexual practices. It does not measure all cases, just those involving sexually transmissible infections.

Notification data for chlamydia, syphilis, gonorrhoea and donovanosis are presented below.

Chlamydia

For the period 2006–2008, there were 42,762 notifications of chlamydia in Western Australia, South Australia, Tasmania and the Northern Territory, 20% of which were notifications of Aboriginal and Torres Strait Islander peoples. The proportion of notifications that occurred among Indigenous people ranged from 2% in Tasmania to 61% in the Northern Territory (see Indicator 1.11 Table 1.11.3).

Time series

- In Western Australia, South Australia and the Northern Territory combined there were significant increases in notification rates for chlamydia among Indigenous Australians during the period 1994–1996 to 2006–2008. The fitted trend line shows an average yearly increase in the age-standardised rate of around 73 per 100,000, which is equivalent to a 199% increase in the age-standardised rate over the period (Table 2.25.1 and Figure 2.25.1). Significant increases in age-standardised rates for chlamydia were evident for both Indigenous males and females.
- There were also significant increases in notification rates for chlamydia among other Australian males and females during the same period (608% increase for males and 474% increase for females) (Table 2.25.1).
- Notification rate ratios between Indigenous and other Australians for chlamydia also showed a significant increase over the 12-year period (Figure 2.25.1). The fitted trend line

showed an average yearly increase in the ratio of around 55 which is equivalent to a 165% increase in the rate ratio over the period.

- Although rate ratios showed an increase over the period, the difference in notification rates between Indigenous and other Australians declined significantly for both males and females.

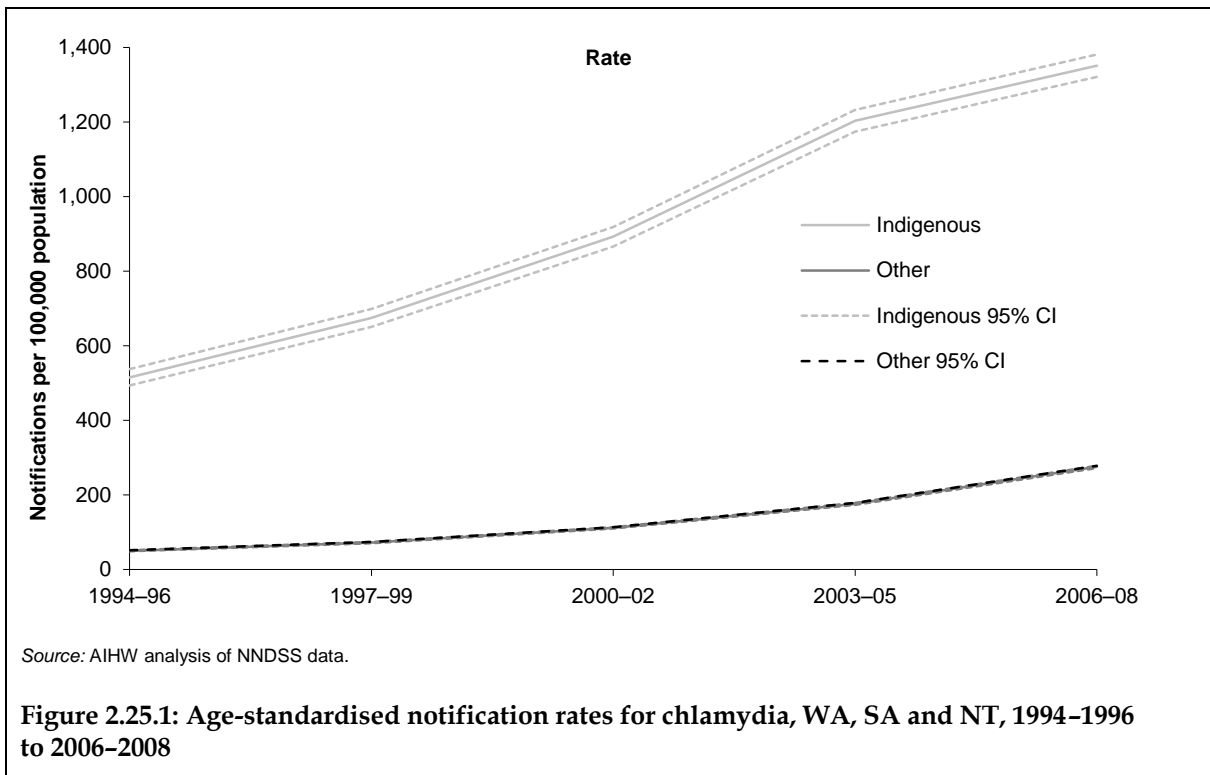


Table 2.25.1: Crude and age-standardised notification rates, rate ratios and rate differences for chlamydia, WA, SA and NT, 1994–1996 to 2006–2008^(a)

	1994–1996	1997–1999	2000–2002	2003–2005	2006–2008	Annual change ^(b)	Per cent change over period ^(c)
Indigenous notifications							
Males	823	1,219	1,703	2,508	3,174	199.7*	339.7*
Females	1,668	2,200	3,153	4,427	5,166	307.4*	258.0*
Persons	2,493	3,419	4,857	6,997	8,431	515.1*	289.3*
Other Australian notifications^(d)							
Males	1,913	3,099	4,801	7,740	12,773	878.7*	643.1*
Females	3,303	4,372	6,671	10,794	17,835	1,182.9*	501.4*
Persons	5,256	7,482	11,536	18,573	30,663	2,063.5*	549.6*
Indigenous crude rate per 100,000							
Males	429.9	592.7	772.0	1,069.6	1,281.2	72.6*	236.6*
Females	861.1	1,060.3	1,417.6	1,870.4	2,063.8	107.2*	174.3*
Persons	647.3	827.5	1,096.4	1,485.0	1,692.8	91.6*	198.2*
Indigenous age-standardised rate per 100,000^(e)							
Males	365.9	508.5	657.4	905.8	1,058.3	59.4*	227.3*
Females	665.2	842.7	1,127.2	1,483.9	1,621.4	85.1*	179.2*
Persons	515.2	674.6	892.1	1,203.0	1,350.4	73.3*	199.2*
Other Australian age-standardised rate per 100,000^{(d)(e)}							
Males	35.5	58.0	91.0	143.9	223.9	15.4*	608.4*
Females	64.3	86.4	131.9	208.9	329.2	21.7*	473.7*
Persons	49.8	71.8	111.4	175.6	275.1	18.5*	519.1*
Rate difference^(f)							
Males	330.4	450.5	566.4	761.9	834.4	-0.5*	-61.7*
Females	600.9	756.4	995.3	1,275.1	1,292.2	-0.5*	-60.9*
Persons	465.3	602.8	780.7	1,027.4	1,075.4	-0.4*	-60.5*
Rate ratio^(g)							
Males	10.3	8.8	7.2	6.3	4.7	44.0*	186.4*
Females	10.4	9.8	8.6	7.1	4.9	63.4*	147.6*
Persons	10.3	9.4	8.0	6.9	4.9	54.8*	164.9*

* Represents results with statistically significant increases or declines at the $p < 0.05$ level over the period 1994–1996 to 2006–2008.

- (h) Rates were calculated using the sum of notifications divided by the sum of the populations for the relevant years
- (i) Average annual change in rates, rate ratios and rate differences were determined using linear regression analysis.
- (j) Percentage change between 1994–1996 and 2006–2008 were based on the annual rate of change over the period.
- (k) 'Other' includes notifications for non-Indigenous people and those for whom Indigenous status was not stated.
- (l) Directly age-standardised using the Australian 2001 standard population using age 5 year age groups up to 75+
- (m) Notification rate for Indigenous Australians minus the notification rate for other Australians.
- (n) Notification rate for Indigenous Australians divided by the notification rate for other Australians.

Source: AIHW analysis of NNDSS data.

Syphilis

For the period 2006–2008, there were 5,268 notifications of syphilis in Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory combined, 29% of which were notifications of Aboriginal and Torres Strait Islander peoples. The proportion of notifications that occurred among Indigenous people was largest in the Northern Territory (89%) (see Indicator 1.11 Table 1.11.3).

Time series

- Over the period 1994–1996 to 2006–2008 in Western Australia, South Australia and the Northern Territory combined, there were significant decreases in the annual change of notification rates for syphilis among Indigenous Australians (from around 10 to 8 notifications per 100,000 over the time period). The fitted trend line shows an average yearly decline in the age-standardised rate of around 3 per 100,000, which is equivalent to a 14% reduction in the rate over the period (Table 2.25.2).
- There were significant increases in notification rates for syphilis among other Australians males during the same period. The fitted trend line showed an average yearly increase in the rate of around 0.4 per 100,000 which was equivalent to a 186% increase in the rate over the period (Table 2.25.2).
- There was a significant decline in notification rate ratios between Indigenous and other Australians for syphilis over the 12-year period. The fitted trend showed an average yearly decline in the rate ratio of around 4, which was equivalent to a 60% reduction in the rate ratio over the period. These declines were statistically significant for both males and females.

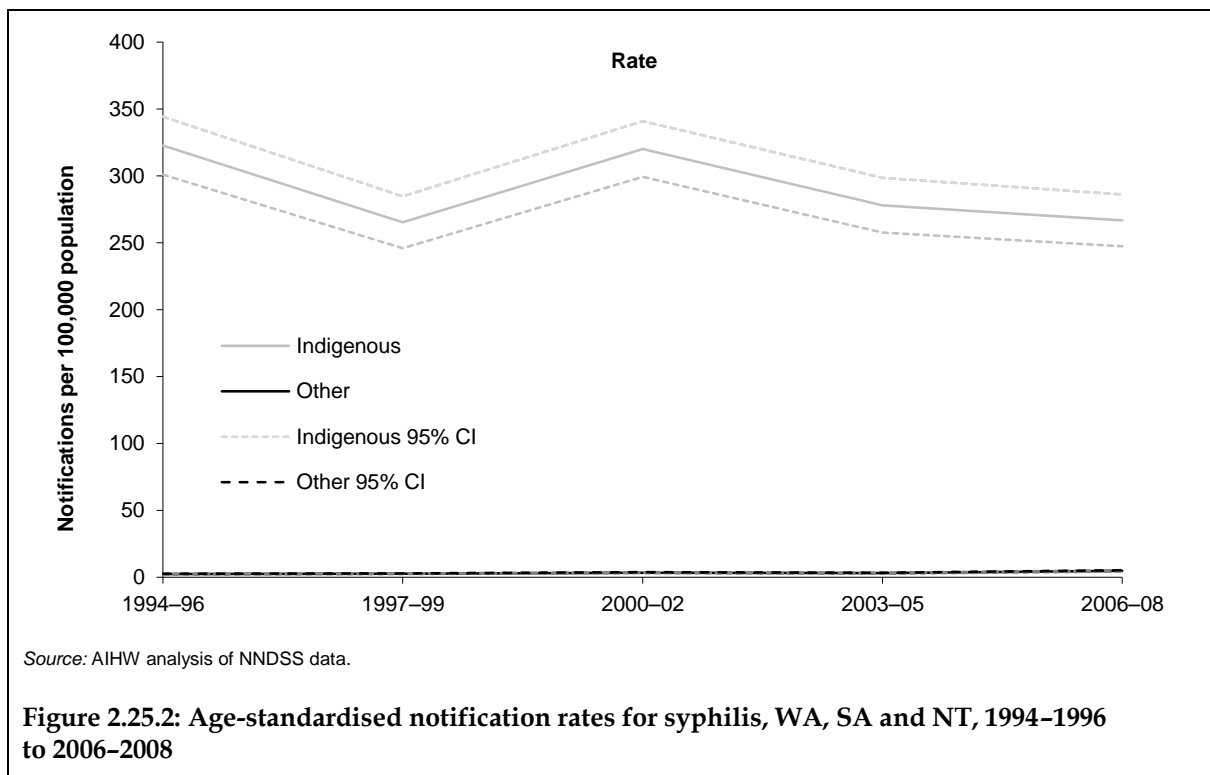


Table 2.25.2: Crude and age-standardised notification rates, rate differences and rate ratios for syphilis^(a), WA, SA and NT, 1994–1996 to 2006–2008^(b)

	1994–1996	1997–1999	2000–2002	2003–2005	2006–2008	Annual change ^(c)	Per cent change over period ^(d)
Indigenous notifications							
Males	669	542	685	552	527	-9.1	-19.1
Females	647	506	657	552	560	-4.3	-9.2
Persons	1,318	1,049	1,342	1,109	1,106	-12.1	-12.9
Other Australian notifications^(e)							
Males	136	195	250	239	440	21.7*	223.7*
Females	99	79	114	102	111	1.6	22.2
Persons	237	275	371	341	551	23.1*	136.7*
Indigenous crude rate per 100,000							
Males	349.5	263.5	310.5	235.4	212.7	-10.1*	-40.3*
Females	334.0	243.9	295.4	233.2	223.7	-7.7*	-32.3*
Persons	342.2	253.9	302.9	235.4	222.1	-8.6*	-35.3*
Indigenous age-standardised rate per 100,000^(f)							
Males	342.3	300.3	349.4	299.4	278.4	-4.3	-17.5
Females	304.6	235.9	294.0	260.3	253.8	-2.6	-11.8
Persons	322.6	265.2	320.0	278.0	266.7	-3.3	-14.3
Other Australian age-standardised rate per 100,000^{(e)(f)}							
Males	2.7	3.7	4.7	4.4	7.7	0.4*	186.3*
Females	2.0	1.5	2.2	1.9	2.0	0.0	9.9
Persons	2.3	2.7	3.5	3.1	4.9	0.2*	110.1*
Rate difference^(g)							
Males	339.6	296.5	344.7	295.1	270.7	-6.5	-19.1
Females	302.6	234.4	291.8	258.4	251.8	-2.4	-12.0
Persons	320.3	262.6	316.5	274.9	261.8	-5.9	-15.2
Rate ratio^(h)							
Males	128.1	80.2	74.6	68.6	36.2	-4.6*	-71.2*
Females	153.7	154.2	134.3	135.2	127.2	-2.6*	-21.8*
Persons	137.5	99.7	91.5	88.5	54.7	-3.5*	-60.0*

* Represents results with statistically significant increases or declines at the $p < 0.05$ level over the period 1994–1996 to 2006–2008.

- (a) Data includes all nominations of syphilis, including cases of more than 2 years or unknown duration.
- (b) Rates were calculated using the sum of notifications divided by the sum of the populations for the relevant years.
- (c) Average annual change in rates, rate ratios and rate differences were determined using linear regression analysis.
- (d) Percentage change between 1994–1996 and 2006–2008 was based on the annual rate of change over the period.
- (e) 'Other' includes notifications for non-Indigenous people and those for whom Indigenous status was not stated.
- (f) Directly age-standardised using the Australian 2001 standard population using age 5 year age groups up to 75+.
- (g) Notification rate for Indigenous Australians divided by the notification rate for other Australians.
- (h) Notification rate for Indigenous Australians minus the notification rate for other Australians.

Source: AIHW analysis of NNDSS data.

Gonorrhoea

For the period 2006–2008, there were 19,446 notifications of gonorrhoea in Victoria, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory combined, 55% of which were notifications of Aboriginal and Torres Strait Islander peoples. The proportion of notifications that occurred among Indigenous people was largest in the Northern Territory (88%) followed by Western Australia (74%) (see Indicator 1.11 Table 1.11.3).

Time series

- In Western Australia, South Australia and the Northern Territory combined, there were significant increases in notification rates for gonorrhoea among Indigenous Australians during the period 1994–1996 to 2006–2008. The fitted trend line shows an average yearly increase in the age-standardised rate of around 43 per 100,000 which is equivalent to a 61% increase in the rate over the period (Table 2.25.3). There were significant increases in notification rates for both Indigenous males and females.
- There were also increases in notification rates for gonorrhoea among other Australians during the same period. Rates showed a significant increase for males (99% increase over the period) but not for females.
- Notification rate ratios between Indigenous and other Australians for gonorrhoea showed no significant changes for males or females over the 12-year period (Figure 2.25.3).
- There were significant increases in the notification rate differences between Indigenous and other Australians for gonorrhoea over the period, with an average yearly increase in the rate difference of around 42 per 100,000 (61% increase). These increases were statistically significant for both males and females.

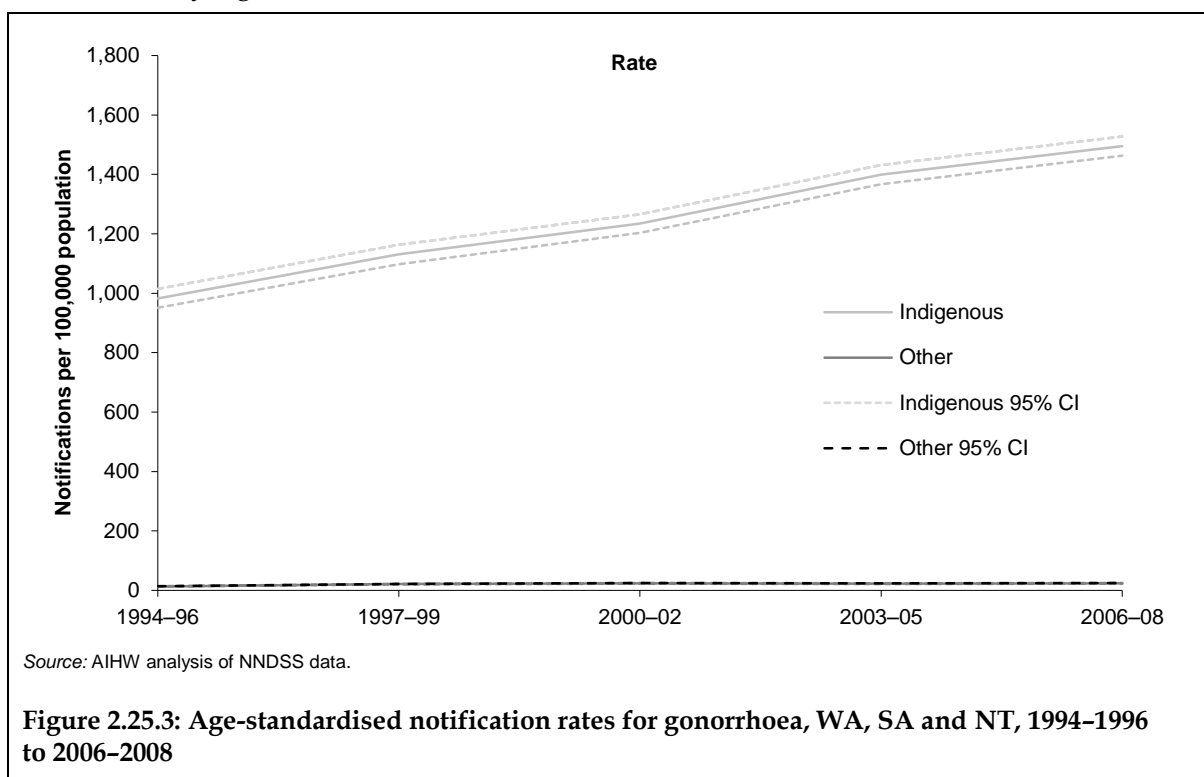


Table 2.25.3: Crude and age-standardised notification rates, rate differences and rate ratios for gonorrhoea, WA, SA and NT, 1994–1996 to 2006–2008^(a)

	1994– 1996	1997– 1999	2000– 2002	2003– 2005	2006– 2008	Annual change ^(b)	Percentage change over period ^(c)
Indigenous notifications							
Males	2,595	2,645	3,066	3,730	4,261	147.2*	79.4*
Females	1,850	2,881	3,416	4,163	4,505	219.7*	166.3*
Persons	4,457	5,529	6,482	7,968	8,881	376.2*	118.2*
Other Australian notifications^(d)							
Males	968	1,373	1,608	1,767	1,969	79.9*	115.5*
Females	397	821	809	613	649	9.9	34.8
Persons	1,377	2,208	2,459	2,389	2,645	90.6*	92.1*
Indigenous crude rate per 100,000							
Males	1,355.6	1,286.1	1,389.9	1,590.7	1,720.0	34.5*	35.6*
Females	955.0	1,388.5	1,535.8	1,758.8	1,799.7	68.7*	100.6*
Persons	1,157.2	1,338.3	1,463.2	1,691.1	1,783.2	53.5*	64.7*
Indigenous age-standardised rate per 100,000^(e)							
Males	1,200.3	1,137.6	1,223.2	1,368.3	1,493.0	27.2*	31.7*
Females	771.9	1,132.1	1,251.5	1,411.6	1,466.1	55.6*	100.8*
Persons	982.7	1,130.8	1,234.7	1,399.4	1,494.8	43.1*	61.4*
Other Australian age-standardised rate per 100,000^{(d)(e)}							
Males	18.5	26.0	30.3	32.7	34.6	1.3*	98.7*
Females	7.7	16.1	15.8	11.9	12.0	0.1	26.7
Persons	13.2	21.1	23.5	22.5	23.7	0.7*	78.6*
Rate ratio^(g)							
Males	65.0	43.8	40.4	41.8	43.1	–1.5	–32.9
Females	99.9	70.5	79.2	118.8	122.0	3.1	43.2
Persons	74.2	53.5	52.6	62.3	63.0	–0.5	–8.6
Rate difference^(f)							
Males	1,181.8	1,111.6	1,192.9	1,335.5	1,458.4	25.9*	30.7*
Females	764.2	1,116.0	1,235.7	1,399.8	1,454.1	55.4*	101.6*
Persons	969.5	1,109.7	1,211.2	1,377.0	1,471.1	42.3*	61.1*

* Represents results with statistically significant increases or declines at the $p < 0.05$ level over the period 1994–1996 to 2006–2008.

(a) Rates were calculated using the sum of notifications divided by the sum of the populations for the relevant years.

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

(c) Percentage change between 1994–1996 and 2006–2008 was based on the annual rate of change over the period.

(d) 'Other' includes notifications for non-Indigenous people and those for whom Indigenous status was not stated.

(e) Directly age-standardised using the Australian 2001 standard population using age 5 year age groups up to 75+.

(f) Notification rate for Indigenous Australians divided by the notification rate for other Australians.

(g) Notification rate for Indigenous Australians minus the notification rate for other Australians.

Source: AIHW analysis of NNDSS data.

Donovanosis

For the period 2006–2008, there were five notifications of donovanosis in Australia, four of which were notifications of Aboriginal and Torres Strait Islander peoples. All of these recorded notifications took place in Queensland and the Northern Territory. Rates have not been calculated for these states and territories because of the small numbers of notifications.

Teenage pregnancies

Teenage pregnancy is one indicator of unsafe sexual practices. It does not measure all cases, just those involving pregnancies in the under 20 year age group. Note that not all unsafe sexual practices result in teenage pregnancy and not all teenage pregnancies are unplanned. So this measure overestimates unplanned pregnancies and underestimates all cases of unsafe sexual practices.

Information on births to teenage mothers is available from the National Perinatal Data Collection.

- For the period 2005-2007, there were 6,396 women aged less than 20 years who gave birth and identified as Aboriginal or Torres Strait Islander peoples. This represented 22% of all Indigenous mothers who gave birth at a rate of 46.9 per 1,000 women. In comparison, only 3.6% of all non-Indigenous mothers were aged less than 20 years at a rate of 9.2 per 1,000 women (Table 2.25.4; Table 2.25.5).
- The majority of teenage mothers were aged 17–19 years for both Indigenous and non-Indigenous mothers. However, 20% of Indigenous teenage mothers were aged less than 17 years, compared with 10% of non-Indigenous mothers (Table 2.25.4).
- Indigenous women less than 14 years of age gave birth at 17 times the rate of non-Indigenous women of this age range (Table 2.25.4).
- The rate of Indigenous women aged less than 20 years who gave birth varied across jurisdictions. Western Australia had the highest rate (68 per 1,000 women) and Tasmania had the lowest (21) (Table 2.25.5).
- Indigenous women aged less than 20 years gave birth at approximately seven times the rate of non-Indigenous women in Western Australia, approximately five times the rate in New South Wales, Victoria and South Australia and approximately four times the rate in the Northern Territory and Queensland (Table 2.25.5).
- From 2005-2007, *Very Remote* areas had the highest proportion of Indigenous mothers who were teenagers (25%) and *Major Cities* had the lowest (18%). For non-Indigenous mothers, *Outer Regional* areas had the highest proportion of teenage mothers (5.6%) and *Major Cities* had the lowest (2.9%) (Table 2.25.6).
- For those jurisdictions where data on smoking during pregnancy were available, approximately 53% of Indigenous teenage mothers reported smoking during pregnancy in 2005, 44% reported they did not smoke during pregnancy and 3.4% did not state their smoking status (Table 2.25.6).
- In the period 2005-2007, approximately 13% of Indigenous teenage mothers had births that were pre-term and 13% gave birth to low birthweight babies. Around 10% of non-Indigenous teenage mothers had pre-term births and 8% gave birth to low birthweight babies (Table 2.25.7).

- Around 2.6% of Indigenous teenage mothers gave birth to a baby with an Apgar score of less than 7 at 5 minutes, compared with 2.0% of non-Indigenous teenage mothers (Table 2.25.7).
- The perinatal mortality rate in the period 2005-2007 was slightly higher for babies born to non-Indigenous than Indigenous teenage mothers (20 per 1,000 and 18 per 1,000, respectively) (Table 2.25.7).

Table 2.25.4: Women aged less than 20 years who gave birth, by Indigenous status, 2005-2007

Age (years)	Indigenous	Non-Indigenous	
	Number		
<14	25	30	
14	110	124	
15	377	638	
16	795	2,210	
17	1,258	5,043	
18	1,686	8,289	
19	2,145	12,909	
Total < 20 years	6,396	29,243	
	Per cent		
<14	0.4	0.1	
14	1.7	0.4	
15	5.9	2.2	
16	12.4	7.6	
17	19.7	17.2	
18	26.4	28.3	
19	33.5	44.1	
Total < 20 years	100.0	100.0	
	Number per 1,000 women		
	Indigenous	Non-Indigenous	Rate ratio
<14	0.7	0.04	17.3
14	5.9	0.3	19.0
15	21.0	1.6	13.1
16	46.8	5.6	8.4
17	79.5	12.7	6.3
18	113.5	20.8	5.4
19	148.4	31.9	4.7
Total < 20 years^(a)	46.9	9.2	5.1

(a) Total rates for women aged 12 to 19 years of age.

Source: AIHW analysis of NPSU National Perinatal Data Collection.

Table 2.25.5: Women aged less than 20 years who gave birth, by Indigenous status and state/territory^{(a)(b)}, 2005–2007

	Number		Per cent		Rate (no. per 1,000 women aged 12 to < 20 years)		
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous	Ratio
NSW	1,647	8,860	19.9	3.3	40.3	8.6	4.7
Vic	269	5,105	16.7	2.6	29.9	6.4	4.7
Qld	1,711	7,729	18.8	4.8	44.8	12.2	3.7
WA	1,228	3,314	23.8	4.2	67.5	10.3	6.6
SA	355	2,377	21.0	4.4	45.8	10.1	4.5
Tas	108	1,191	16.2	6.8	20.7	16.0	1.3
ACT	28	316	12.4	2.4	n.a.	n.a.	n.a.
NT	1,045	319	25.1	4.8	65.4	15.2	4.3
Aust^(c)	6,396	29,243	20.7	3.6	46.9	9.2	5.1

(a) Based on state/territory of usual residence.

(b) Excludes missing, non-Australian resident and not stated Australia residents.

(c) Includes missing, non-Australian resident, not stated and not stated Australia residents.

Note: Excludes not stated Indigenous status.

Source: AIHW analysis of NPESU National Perinatal Data Collection.

Table 2.25.6: Women aged less than 20 years who gave birth, by Indigenous status and selected maternal characteristics, 2005-2007

	Number		Per cent	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Remoteness^(a)				
Major cities	1,465	16,350	18.4	2.9
Inner regional	1,170	8,060	19.9	5.4
Outer regional	1,648	4,062	20.1	5.6
Remote	718	566	21.2	4.8
Very remote	1,390	173	25.4	4.3
Total^(b)	6,396	29,243	20.7	3.6
Smoked during pregnancy^(c)				
Smoked	3,050	8,794	52.9	38.9
Did not smoke	2,520	13,672	43.7	60.5
Not stated	194	133	3.4	0.6
Parity^(d)				
None	4,708	24,605	73.6	84.1
One	1,392	4,169	21.8	14.3
Two	267	403	4.2	1.4
Three or more	27	39	0.4	0.1
Total mothers < 20 years	6,396	29,243

Note: Excludes not stated Indigenous status.

(a) Excludes missing, non-Australian resident and not stated Australia residents.

(b) Includes missing, non-Australian resident and not stated Australia residents.

(c) Excludes Victoria for all years and Queensland for 6 months of 2005.

(d) Parity refers to number of previous pregnancies resulting in live births or stillbirths, excluding the current pregnancy.

Source: AIHW analysis of NPESU National Perinatal Data Collection.

Table 2.25.7: Women aged less than 20 years who gave birth, by Indigenous status and selected birth outcomes, 2005-2007

	Number		Per cent	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Pre-term births	847	2,824	13.1	9.6
Low birthweight^(a)	829	2,267	13.0	7.8
Apgar score at 5 minutes^(a)				
0-6	164	568	2.6	2.0
7-10	6,179	28,427	97.1	97.9
	Number		Rate (no. per 1,000 births)	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
Perinatal deaths	117	591	18.2	20.0

(a) For live births.

Note: Excludes not stated Indigenous status.

Source: AIHW analysis of NPESU National Perinatal Data Collection.

Data quality issues

National Notifiable Diseases Surveillance System

Notifications

Incidence of sexually transmissible infections is one indicator of unsafe sexual practices. It does not measure all cases, just those involving sexually transmissible infections.

Notification statistics do not measure the incidence or prevalence of these infections in the community. Under-reporting of these infections can occur at a number of stages:

- a person infected may not have symptoms
- a person may not seek medical care
- no testing performed
- a false negative result may occur
- there may be a positive test result but for some reason a notification may not occur
- the case may not be reported to the NNDSS (for more information see Figure 1 in NNDSS 2008).

The level of under-reporting can vary by disease, jurisdiction and by time. The method of surveillance can vary between jurisdictions with different requirements for notification by medical practitioners, laboratories and hospitals. These can also change over time.

Notification statistics can provide insights into the health of the population which has been diagnosed with a notifiable illness and changes over time.

Notification statistics do not necessarily capture the mode of transmission, NNDSS data on the diseases discussed in this indicator are known to include infections acquired through non-sexual modes of transmission. For example, although data on hepatitis C is included in this indicator, sexual transmission is not considered the main route of transmission, hepatitis C primarily occurs among those with a history of injecting drug use.

Under-identification

The incompleteness of Indigenous identification means the number of notifications recorded as Indigenous is likely to be an underestimate of Aboriginal and Torres Strait Islander notifications rates. In 2007-08, Indigenous status was not reported in 54% cases of chlamydia, 25% cases of syphilis, 29% of cases of gonorrhoea and 13% of cases of hepatitis C (newly acquired).

The completeness of Indigenous identification in notifiable disease registries varies between the states and territories. Information on the occurrence of sexually transmitted infections is included in this indicator if information on Indigenous status was reported for at least 50% of diagnoses in a state or territory health jurisdiction for the period 2007-08.

Numerator and denominator

Rate and ratio calculations rely on good population estimates. The changes in the completeness of identification of Indigenous people in notification records may take place at different rates from changes in the identification of Indigenous people in the population estimates. Denominators used here are sourced from Experimental estimates and projections: Aboriginal and Torres Strait Islander Australians 1991 to 2021 (ABS 2009).

National Perinatal Data Collection

Births

Birth notification forms are completed for all births of 20 weeks or more gestation, or a birthweight of 400 grams or more. The Perinatal National Minimum Data Set includes all births in Australia in hospitals, birth centres and the community.

The state/territory of birth is provided for all births. Tabulated data in this report are based on births in each state and territory in 2007 meeting the criteria for inclusion in the NPDC. Each state and territory has its own form and/or electronic system for collecting perinatal data. Unless otherwise stated, the data in this report relate to the state or territory of occurrence of births in 2007 rather than to the state or territory of usual residence of the mother. The Australian Capital Territory data contain a relatively high proportion of New South Wales residents who gave birth in the Australian Capital Territory. There are a small number of Aboriginal and Torres Strait Islander mothers who give birth in the Australian Capital Territory, and the proportion fluctuates from year to year, making this jurisdiction less comparable to other jurisdictions. In 2007, 24.1% of Aboriginal or Torres Strait Islander women who gave birth in the Australian Capital Territory were not Australian Capital Territory residents. When interpreting the data it is important to note that these births to non-residents may include a disproportionate number of high risk and multi-fetal pregnancies associated with poorer perinatal outcomes. Therefore, percentages or rates such as those for preterm birth and perinatal deaths may be inflated for births that occur in the Australian Capital Territory. Because of this and the small numbers involved, care should be taken in interpreting data from the Australian Capital Territory (Laws et al. 2007).

The Perinatal NMDS does not include neonatal or perinatal death data items of information on cause of death. However, this information is collected as part of the NPDC. The data are incomplete. In some jurisdictions, neonatal deaths for babies transferred to another hospital or readmitted to hospital and those dying at home may not be included. Neonatal deaths for the Northern Territory are considered to be incomplete for 2007 as data do not include deaths occurring outside of the Northern Territory. Due to small number of deaths, interpretation can be limited as to whether differences in mortality rates are due to statistical fluctuations or differential ascertainment.

Indigenous status question

A standard data item for Indigenous status is specified in the Perinatal National Minimum Data Set. However, not all states and territories use this standard wording for the Indigenous status question on their forms. This affects the quality and comparability of the data collected (ABS & AIHW 2003).

Under-identification

All states and territories have a data item to record Indigenous status on their perinatal form, although there are some differences among the jurisdictions. This separately identifies mothers as those of Aboriginal and Torres Strait Islander origin, and non-Indigenous mothers. No information is collected about the father's or baby's Indigenous status.

Since 2005, all jurisdictions collect information on Indigenous status of the mothers in accordance with the NMDS. All jurisdictions are working towards improving the ascertainment of Indigenous status in their perinatal collection. In 2007, the NPESU, in collaboration with the AIHW's Aboriginal and Torres Strait Islander Health and Welfare Unit, released a report on Indigenous mothers and their babies in each state and territory. This report was based on a survey which was sent to the midwifery managers across Australia to determine how many hospitals in each jurisdiction obtain Indigenous status information of mothers giving birth from admission records and how many collect this information independently. The assessment also involved analysis of the variability in the

number and proportion of mothers recorded as Indigenous in the perinatal data collection over time and across jurisdictions for the period 1991–2004. The outcomes of this assessment showed that Indigenous status data from New South Wales, Victoria, Queensland, Western Australia, South Australia and the Northern Territory are suitable for trends analysis. Perinatal data from Tasmania, although improving, were deemed to be of insufficient quality. This project included an assessment of Indigenous status data quality. (Leeds et al. 2007)

All jurisdictions are working towards improving the quality of the Indigenous status data. Data on Indigenous status are not reported for Tasmania before 2005 because the ‘not stated’ category for Indigenous status was included with the non-Indigenous category. The ‘not stated’ category for birthweight was found to be small nationally in the evaluation of the Perinatal National Minimum Data Set (Laws & Sullivan 2009). Therefore, the exclusion of ‘not stated’ for birthweight will not have a significant impact on these data.

International comparisons

International indigenous data are available for New Zealand, the United States and Canada using the WHO definition of low birthweight. These data are subject to similar data quality issues experienced in Australia around the accuracy of identification. The Canadian data exclude births less than 500 grams because of changes over time in the quality of reporting babies’ birthweight less than 500 grams. This definition is different from Australia’s criteria – including all live births and stillbirths of at least 400 grams birthweight or at least 20 weeks gestation.

The scope of data collections in Canada and the United States is often limited to the registered or reserve Indigenous populations and therefore does not cover the whole Indigenous population. International comparisons need to take into account that the definition of Indigenous status is specific to each country.

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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2.26 Prevalence of overweight and obesity

The prevalence of overweight and obesity among Aboriginal and Torres Strait Islander adults and children

Data sources

Data on the prevalence of overweight and obesity among Aboriginal and Torres Strait Islander adults come from the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS).

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. The survey was conducted in remote and non-remote areas of Australia and collected a range of information from Indigenous Australians. This included information on 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 2011–12. Selected non-Indigenous comparisons are available through the 2004–05 National Health Survey (NHS).

Data for this measure are based on information collected on self-reported height and weight. These measures were used to calculate body mass index (BMI) and categorise respondents into categories of underweight, acceptable weight, overweight and obese. Note that, for approximately 16% of Indigenous Australians and 8% of non-Indigenous Australians, self-reported height and weight were not known or not stated.

Based on the *National health data dictionary*, BMI cut-offs for adults are as follows:

- overweight is a BMI of at least 25 kg/m² and less than 30 kg/m²
- obese is a BMI of at least 30 kg/m².

For children, overweight and obesity are defined using the same BMI cut-offs as for adults after adjusting for age and sex.

Data analyses

No data are currently available on the prevalence of overweight and obesity among Aboriginal and Torres Strait Islander children.

Prevalence of overweight and obesity

- In 2004–05, of those with a known body mass index, approximately 4% of Indigenous Australians aged 18 years and over were underweight, 36% were of acceptable weight, 29% were overweight and 31% were obese (Table 2.26.1).
- After adjusting for differences in age structure, in 2004–05, Indigenous adults were slightly more likely than non-Indigenous adults to be underweight (4% compared with 3%); less likely to be of acceptable weight (32% compared with 44%); less likely to be overweight (31% compared with 36%) and much more likely to be obese (34% compared with 18%) (Table 2.26.1; Figure 2.26.1).

Prevalence of overweight and obesity by age and sex

- Both Indigenous and non-Indigenous adults were most likely to be overweight or obese at ages 45–54 years and 55 years and over. In these age groups, between 69% and 74% of Indigenous people, and between 61% and 59% of non-Indigenous people, were overweight or obese.
- A higher proportion of Indigenous males were overweight (34%) compared with Indigenous females (24%). However, Indigenous females were more likely to be obese than Indigenous males (34% compared with 28%), and also more likely to be underweight than Indigenous males (6% compared with 3%) (Table 2.26.1).

Table 2.26.1: Proportion of adults who are underweight, of acceptable weight, overweight or obese, by Indigenous status, sex and age group, 2004–05

BMI groupings	Age group (years)										Totals				
	18–24		25–34		35–44		45–54		55 and over		Non age-standardised		Age-standardised ^(a)		
	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Indig.	Non-Indig.	Ratio
Per cent															
Males															
Underweight	4.9 ^(b)	3.1	2.8 ^(b)	0.6 ^(c)	1.3 ^(b)	0.6 ^(b)	3.0 ^(b)	0.3 ^(c)	1.5 ^(b)	1.1	2.8*	1.0*	2.4*	1.0*	2.4
Acceptable weight	47.9*	61.5*	36.7	39.4	32.1	29.3	26.7	29.0	24.2*	35.0*	35.0*	37.0*	31.7*	36.9*	0.9
Overweight	30.0	28.3	36.9	42.6	30.9*	47.3*	37.9*	45.9*	38.6*	44.9*	34.4*	43.0*	35.5*	43.0*	0.8
Obese	17.2*	7.1*	23.6	17.5	35.7*	22.9*	32.4	24.7	35.6*	19.1*	27.8*	19.0*	30.4*	19.1*	1.6
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	..
Total Number ('000)	23.7	872.9	30.3	1,319.7	24.8	1,349.3	17.1	1,263.6	13.0	2,065.0	108.8	6,870.5	108.8	6,870.5	..
Females															
Underweight	10.0	10.2	5.0 ^(b)	4.9	6.8 ^(b)	3.5	3.5 ^(b)	2.0	3.1 ^(b)	3.3	6.0	4.2	5.2	4.3	1.2
Acceptable weight	51.0*	62.4*	38.4*	56.8*	30.0*	54.1*	29.2*	47.6*	24.0*	43.1*	35.9*	51.0*	32.4*	51.3*	0.6
Overweight	20.0	19.4	22.0	24.5	25.3	26.1	26.4	30.2	30.0	33.2	24.0*	27.9*	25.6*	27.8*	0.9
Obese	18.9*	8.0*	34.7*	13.9*	37.8*	16.3*	40.9*	20.2*	42.9*	20.4*	34.1*	16.8*	36.8*	16.7*	2.2
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	..
Total Number ('000)	23.2	821.5	30.5	1,274.6	25.2	1,321.9	17.2	1,216.9	13.8	2,072.7	109.9	6,707.6	109.9	6,707.6	..

(continued)