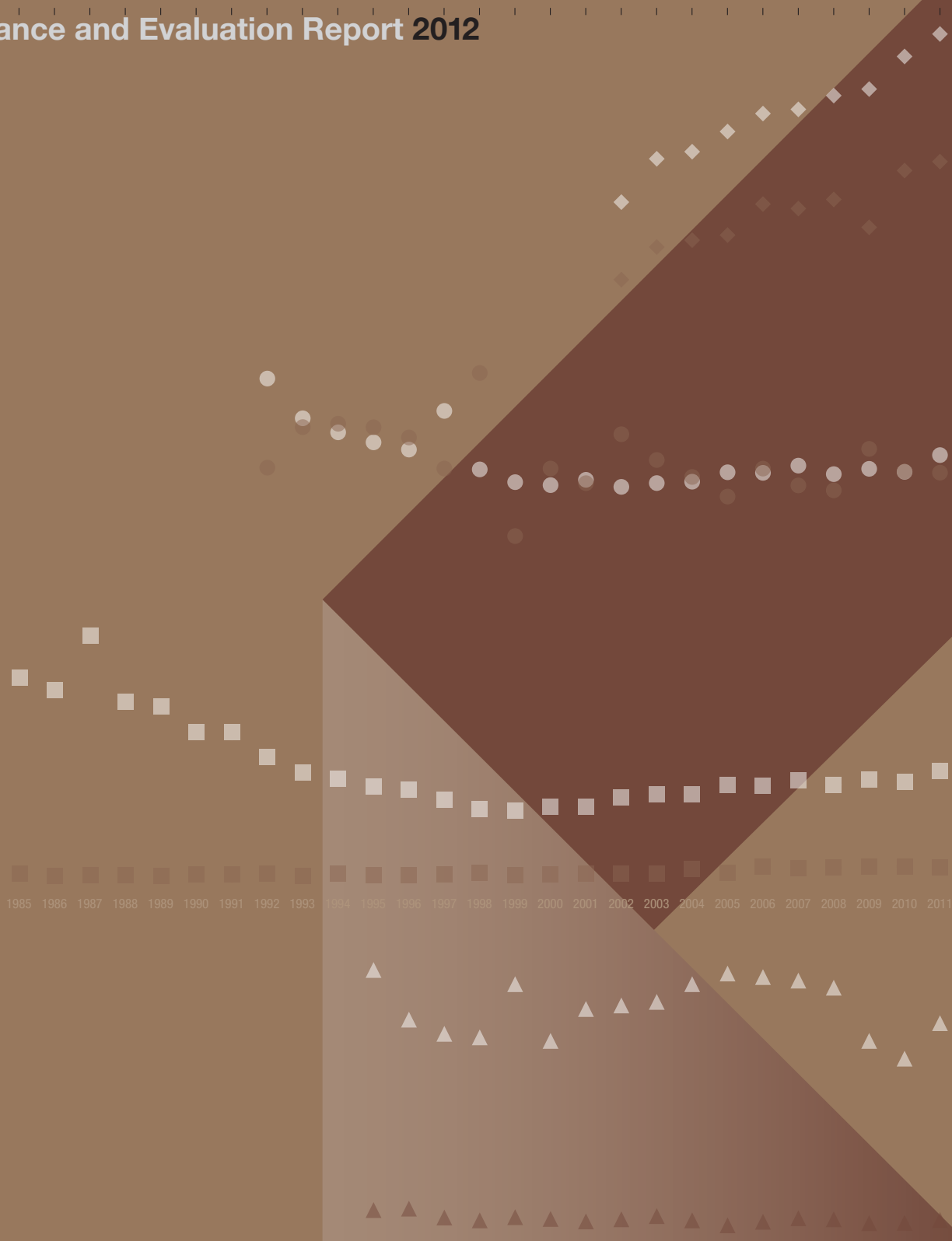


Bloodborne viral and sexually transmitted infections
in Aboriginal and Torres Strait Islander people:
Surveillance and Evaluation Report 2012



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Preface

This surveillance report provides information on the occurrence of blood borne viral and sexually transmissible infections (STIs) among the Aboriginal and Torres Strait Islander population in Australia. The report is published by the Kirby Institute for the purposes of stimulating and supporting discussion on ways forward in minimising the risk of transmission as well as the personal and social consequences of these infections within Aboriginal and Torres Strait Islander communities.

This *Report* is published annually as an accompanying document to the report *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report* and is overseen by the National Aboriginal Community Controlled Health Organisation (NACCHO) Sexual Health and Blood Borne Virus Advisory Committee and the Annual Surveillance Report 2012 Advisory Committee.

The report is produced in a format that is intended to be accessible to a wide range of health service providers and consumers, and particularly Aboriginal and Torres Strait Islander health services and communities. It is available in hard copy and at the internet address <http://www.kirby.unsw.edu.au>

Unless specifically stated otherwise, all data provided in this report are to the end of 2011, as reported by 31 March 2012. Data in the report are provisional and subject to future revision.

The report could not have been prepared without the collaboration of a large number of organisations involved in health services throughout Australia. The ongoing contribution of these organisations, listed in the following section, is gratefully acknowledged.

Acknowledgments

National Organisations

- Australasian Society for HIV Medicine, Sydney, NSW
- Australian Federation of AIDS Organisations, Sydney, NSW
- Australian Government Department of Health and Ageing, Canberra, ACT
- Australian Institute of Health and Welfare, Canberra, ACT
- Communicable Diseases Network Australia, Canberra, ACT
- Hepatitis Australia, Canberra, ACT
- National Aboriginal Community Controlled Health Organisation, Canberra, ACT
- National Association of People Living with HIV/AIDS, Sydney, NSW

State/Territory Health Departments

- Communicable Disease Control Program, ACT Department of Health and Community Care, Canberra, ACT
- Centre for Health Protection, NSW Ministry of Health, North Sydney, NSW
- Sexual Health and BBV Program, Centre for Disease Control, Department of Health and Community Services, Darwin, NT
- Queensland Health, Brisbane, QLD
- Sexually Transmissible Diseases (STD) Services, Internal Medicine Service, Royal Adelaide Hospital, SA
- Department of Community and Health Services, Hobart, TAS
- STD/Bloodborne Virus Program, Infectious Diseases Unit, Department of Human Services, Melbourne, VIC; The Macfarlane Burnet Institute for Medical Research and Public Health Limited, Prahran, VIC
- Communicable Diseases Control Branch, Department of Health, Perth, WA

Collaboration of Australian Needle and Syringe Programs

- Directions ACT, ACT
- AIDS Council of NSW (Sydney and Hunter); Albury Community Health Centre, Albury; First Step Program, Port Kembla and Nowra; Health ConneXions, Harm Reduction Program, Liverpool; Hunter Harm Reduction Services, Newcastle; Indo-Chinese Outreach Network (ICON) Bankstown, Cabramatta and Liverpool; Kirketon Road Centre and K2, Kings Cross; NSW Users and AIDS Association (NUAA), Surry Hills; Northern Rivers Area Health Service, Ballina, Byron Bay, Lismore, Murwillumbah, Nimbin, and Tweed Heads; Resource and Education Program for IDUs, Redfern and Canterbury; Responsive User Services in Health (RUSH), Manly, Ryde and St Leonards; St George NSP, Kogarah; South Court Primary Care NSP, Nepean; Sydney West Area Health Service HIV/Hepatitis C Prevention Service, Auburn, Blacktown, Merrylands, Mt Druitt and Parramatta, NSW
- Northern Territory AIDS and Hepatitis C Council, Alice Springs, Darwin and Palmerston, NT
- Biala Community Alcohol and Drug Services, Brisbane; Cairns Base Hospital NSP, Cairns; Cairns Youthlink, Cairns; Queensland Injectors Health Network (QuIHN), Brisbane, Gold Coast and Sunshine Coast; Kobi House, Toowoomba; West Moreton Sexual Health Service, Ipswich, QLD
- Drug and Alcohol Services South Australia, Adelaide; Hindmarsh Centre, Hindmarsh; Nunkuwarrin Yunti Community Health Centre, Adelaide; South Australia Voice for Intravenous Education (SAVIVE): AIDS Council South Australia, Norwood; Parks Community Health Service, Adelaide; Port Adelaide Community Health Service, Port Adelaide; Noarlunga Community Health Service, Adelaide; Northern Metropolitan Community Health Service NSP and Shopfront, Salisbury, SA

- Clarence Community Health Centre, Clarence; Devonport Community Health Centre, Devonport; Salvation Army Launceston, Launceston; Tasmanian Council on AIDS, Hepatitis & Related Diseases (TasCAHRD), Hobart and Glenorchy; The Link Youth Health Service, Hobart, TAS
- Barwon Health Drug and Alcohol Services, Geelong; Bendigo NSP Services, Bendigo; Darebin Community Health Centre, Northcote; Health Information Exchange, St Kilda; Health Works, Footscray; Melbourne Inner Needle Exchange, Collingwood; North Richmond NSP, North Richmond; South East Alcohol and Drug Service, Dandenong; Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Melbourne, VIC
- WA AIDS Council Mobile Exchange, Perth; Western Australia Substance Users Association (WASUA), Perth and Bunbury, WA

Surveillance and Evaluation Report 2012 Advisory Committee

- Dr Russell Waddell, Australasian Chapter of Sexual Health Medicine, Sydney, NSW
- Dr Benjamin Cowie, Australasian Society for HIV Medicine, NSW
- Liza Doyle, Australasian Society for HIV Medicine, NSW
- Simon Donohoe, Australian Federation of AIDS Organisations, Sydney, NSW
- Kate Pennington, Australian Government Department of Health and Ageing, Canberra, ACT
- Helen Tyrrell, Hepatitis Australia, Canberra, ACT
- Tadgh McMahon, Multicultural HIV/AIDS and Hepatitis C Service, Sydney, NSW
- Jo Watson, National Association of People Living with HIV/AIDS, Sydney, NSW
- Dr Limin Mao, National Centre in HIV Social Research, The University of New South Wales, Sydney, NSW
- Associate Professor David Wilson (Chair), Professor Basil Donovan, Professor Andrew Grulich, Professor Lisa Maher, Ann McDonald, Melanie Middleton, Andrew Nakhla, The Kirby Institute, The University of New South Wales, Sydney, NSW

National Aboriginal Community Controlled Health Organisation Sexual Health and Blood Borne Virus Advisory Committee 2012

- Ms Kathy Malera Bandjolan, Chair NACCHO Sexual Health and Blood Borne Virus Advisory Committee; Mr Mark Saunders, National Aboriginal Community Controlled Health Organisation (NACCHO); Mr James Ward Baker IDI Alice Springs; Representatives of each State and Territory Affiliate, Victorian Aboriginal Community Controlled Health Organisation; Queensland Aboriginal and Islander Health Council; Aboriginal Health Council of South Australia; Aboriginal Medical Services Alliance Northern Territory; Aboriginal Health Council of Western Australia; Aboriginal Health and Medical Research Council of NSW.

Guide to technical terms

Chlamydia: A sexually transmissible infection caused by a type of bacterium. The infection is asymptomatic in about 80% of cases. In those with symptoms, the infection cause inflammation of the urethra, causing some pain and penile discharge, and in females the main symptom is a vaginal discharge. Complications of long-term infection are particularly serious for females and can include pelvic inflammatory disease and infertility. Chlamydia is fully curable by a single dose of antibiotics.

Donovanosis: A sexually transmissible infection caused by a type of bacterium. The most common symptom is a large, painless ulcer of the genitals, the groin or the anal region, that can progress and become complicated by other bacterial infection if untreated, ultimately leading to serious damage to the affected part of the body, and even become life-threatening. Donovanosis is fully curable by 3 to 4 doses of antibiotics over a month. Donovanosis occurs in central and northern Australia, and is now very rare.

Gonorrhoea: A sexually transmissible infection caused by a type of bacterium. Symptoms are similar to those of chlamydia, as are the complications. Most males with urethral gonorrhoea have symptoms. Gonorrhoea is fully curable by a single dose of antibiotic.

HBV (hepatitis B virus) infection: An infection caused by a virus that is transmissible by sexual and blood contact, as well as from mother to child, and is caused by a virus known as HBV. Newly diagnosed hepatitis B virus infection means that a person previously not known to have the infection has been tested and now found to have the infection. Newly acquired infection means the person has become infected within the past two years.

HCV (hepatitis C virus) infection: An infection caused by a virus that is transmissible by blood contact as well as from mother to child. Newly diagnosed hepatitis C virus infection means that a person previously not known to have the infection has been tested and now found to have the infection.

HIV (Human Immunodeficiency Virus) infection: An infection caused by a virus that is transmissible by sexual and blood contact, as well as from mother to child. HIV infection is the cause of AIDS. Newly diagnosed HIV infection means that a person previously not known to have the infection has been tested and now found to have the infection. Newly acquired HIV infection means the person has become infected within the past year.

Infectious syphilis: A sexually transmissible infection caused by a type of bacterium. The main symptoms in the early stage are a small painless sore at the site of infection within the first few weeks, followed by a rash in the next few months. The infection is easily curable with antibiotics. In the absence of treatment, there will then be a period of several years without any symptoms, followed by a range of complications over decades that can involve the skin, bone, intestinal tract, the central nervous system and cardiovascular system. Infectious syphilis is fully curable with a single injection of long acting penicillin.

For more information on these infections, see Chin J (2000). *Control of Communicable Diseases Manual*.

Age specific rate: The proportion of cases in a particular age group who have the infection, usually expressed per 100000 cases in the specified age group.

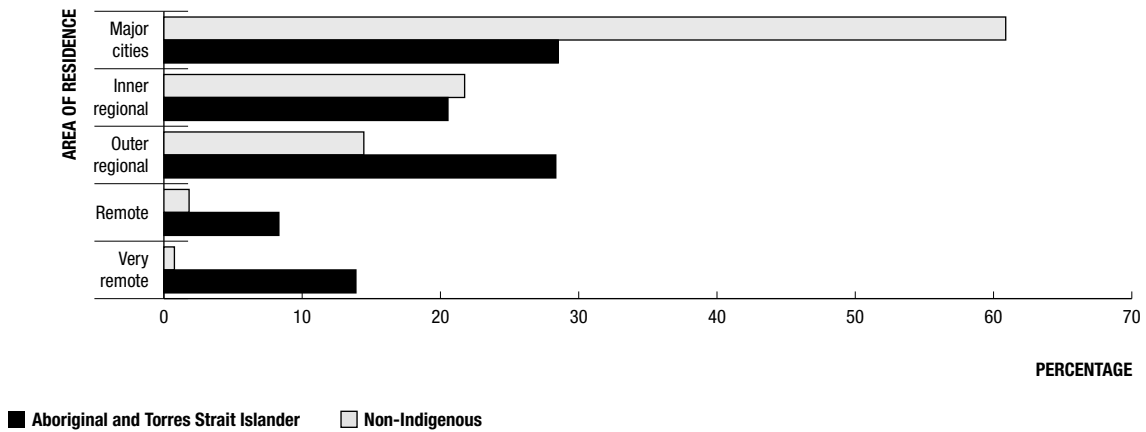
Example: Age-specific rate of diagnosis of gonorrhoea among males aged 20 – 29 years

$$\frac{\text{Number of diagnoses of gonorrhoea among males aged 20 – 29 years}}{\text{Number of males aged 20 – 29 years}} \times 100000$$

Age standardised rate of infection: The proportion of cases in a particular population who have the infection, adjusted by a mathematical technique to account for the age structure so that comparisons can be made across populations.

Area of residence: Area of residence, indicated by postcode, is classified into one of five areas: major cities, inner regional, outer regional, remote and very remote. In 2011, the highest proportion of the Aboriginal and Torres Strait Islander population (28.5%) lived in major cities (Figure 1). Over half (50.5%) lived in outer regional, remote and very remote areas combined, compared with 16.9% of the non-Indigenous population (Figure 1) (See *Methodological Notes* for further information).

Figure 1 Area of residence, 2011, by Aboriginal and Torres Strait Islander status



Source: Australian Bureau of Statistics

Completeness of data on Aboriginal and Torres Strait Islander status

- Time trends in diagnoses of specific infections by jurisdiction were included in the *Surveillance and Evaluation Report 2012* if information on Aboriginal and Torres Strait Islander status was available for at least 50% of diagnoses of the infection in every one of the past five years.
- Aboriginal and Torres Strait Islander status was not reported for 49% (39801) of chlamydia diagnoses, 32% (3847) of gonorrhoea diagnoses and 60% (6166) of hepatitis C diagnoses in 2011 (Figure 2, 3). Incomplete information on Aboriginal and Torres Strait Islander identification has the potential to underestimate the true extent of these infections in the Aboriginal and Torres Strait Islander population.

Figure 2 Reporting of Aboriginal and Torres Strait Islander status at diagnosis of selected sexually transmissible infections, by State/Territory, 2011

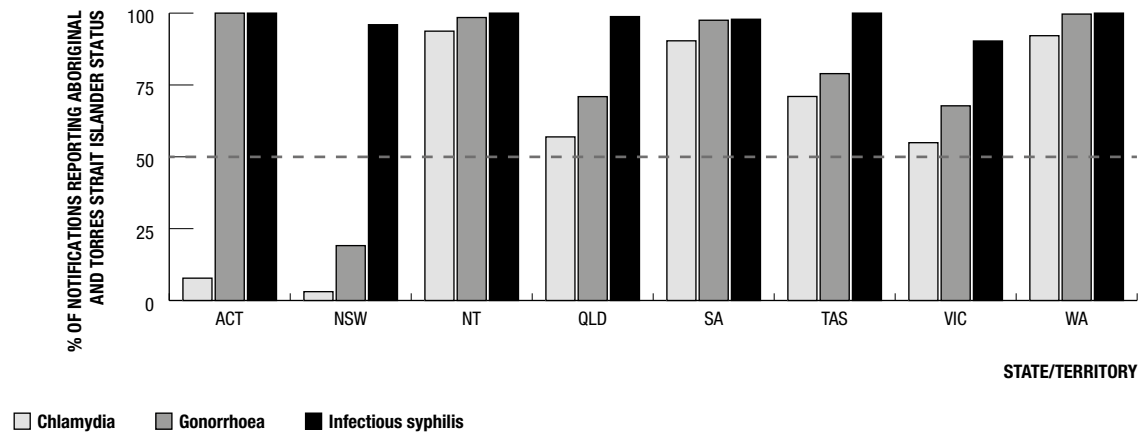
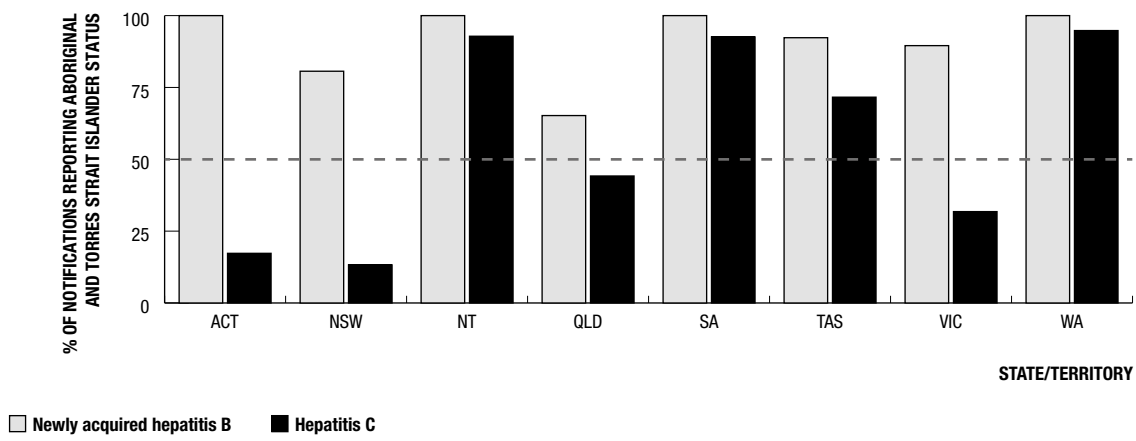


Figure 3 Reporting of Aboriginal and Torres Strait Islander status at diagnosis of viral hepatitis, by State/Territory, 2011



Summary

- Overall, the Aboriginal and/or Torres Strait Islander population continues to be overrepresented in notifications of sexually transmissible infections and viral hepatitis (Table 2).
- Chlamydia and gonorrhoea continue to be reported at disproportionately high rates among the Aboriginal and Torres Strait Islander population.
- The elimination of donovanosis from Australia is on track, with no cases detected in Australia during 2011.
- Diagnoses of infectious syphilis increased in Aboriginal and Torres Strait Islander communities in 2011, particularly in Queensland and among 15 – 19 year olds.
- Remote and very remote Aboriginal and Torres Strait Islander communities continue to experience substantially higher rates of chlamydia, gonorrhoea and infectious syphilis compared with regional and urban centres in Australia.
- HIV infection continues to be diagnosed at a similar rate to that in the non-Indigenous population although there are substantial differences in the distributions of HIV exposure categories.
- Diagnoses of newly diagnosed hepatitis C infection and newly acquired hepatitis B infection are reported at disproportionately high rates among Aboriginal and Torres Strait Islander communities.

Sexually transmissible infections

- Chlamydia continued to be the most frequently reported condition in Australia with 80800 diagnoses in 2011. Of these, 7044 (9%) were among the Aboriginal and Torres Strait Islander population, 33955 cases (42%) the non-Indigenous population and for 39801 (49%) diagnoses Aboriginal and Torres Strait Islander status was not reported.
- The chlamydia diagnosis rate in the Aboriginal and Torres Strait Islander population in 2011 of 1343 per 100000 was more than three times the rate in the non-Indigenous population of 378 per 100000.
- 80% of chlamydia diagnoses in 2011 in both populations occurred in the 15 – 19 and 20 – 29 year age groups.
- Female to male ratios of chlamydia notifications for the Aboriginal and Torres Strait Islander population and the non-Indigenous population were 1.6:1 and 1.4:1, respectively.
- Chlamydia diagnoses reported from remote and very remote areas accounted for 65% of all notifications in the Aboriginal and Torres Strait Islander population.
- In 2010 – 2011 a large trial was underway in 66 remote communities in Northern Territory, Western Australia and Far North Queensland focused on increased testing for sexually transmissible infections, which may have contributed to increased notifications in this period.
- Of 12087 diagnoses of gonorrhoea in 2011, 4535 (37%) were among the Aboriginal and Torres Strait Islander population, 3705 (31%) were among the non-Indigenous population and for 3847 (32%) diagnoses Aboriginal and Torres Strait Islander status was not reported.
- The rate of diagnosis of gonorrhoea in the Aboriginal and Torres Strait Islander population in 2011 was 673 per 100000, 30 times higher than the rate of 22 per 100000 in the non-Indigenous population.
- Male to female ratios of gonorrhoea notifications for Aboriginal and Torres Strait Islander and the non-Indigenous population were 0.8:1 and 4:1, respectively.
- There were no donovanosis diagnoses reported in Australia in 2011 demonstrating success in the efforts to eliminate this disease from Australian populations.
- Nationally, 1303 cases of infectious syphilis were diagnosed in 2011; 196 (15%) among the Aboriginal and Torres Strait Islander population, 1038 (80%) among the non-Indigenous population and Aboriginal and Torres Strait Islander status was not reported for 69 (5%) diagnoses.
- The rate of diagnosis of infectious syphilis in the Aboriginal and Torres Strait Islander population in 2011, was 32 per 100000 compared to 5 per 100000 in the non-Indigenous population.
- The rate of diagnosis of infectious syphilis in the Aboriginal and Torres Strait Islander population increased in 2011, particularly in Queensland and among 15 – 19 year olds, attributed to an outbreak of syphilis in some Queensland remote communities.

HIV infection

- A total of 1137 cases of HIV infection were newly diagnosed in 2011; 22 diagnoses were among the Aboriginal and Torres Strait Islander population.
- In the ten years from 2002 to 2011, 229 cases of HIV infection were newly diagnosed in the Aboriginal and Torres Strait Islander population.
- In 2011 the rate of HIV diagnosis in the Aboriginal and Torres Strait Islander population (4.4 per 100000) was similar to that in the non-Indigenous population (excluding populations from high HIV prevalence countries) (5.0 per 100000).
- Among cases of HIV infection newly diagnosed in 2007 – 2011, the most frequently reported route of HIV transmission was sexual contact between males in both the Aboriginal and Torres Strait Islander cases (51%) and in the non-Indigenous cases (72%).
- In the period 2007 – 2011, Aboriginal and Torres Strait Islander cases differed from non-Indigenous cases, in that a lower proportion of cases were diagnosed among males (79% vs 94% for non-Indigenous cases) and a higher proportion of diagnoses were attributed to injecting drug use (16% vs. 2%). A similar proportion of newly diagnosed HIV cases in the Aboriginal and Torres Strait Islander and the non-Indigenous population were attributed to heterosexual contact (17% vs 16%).

Viral hepatitis

- A total of 190 cases of newly acquired hepatitis B infection were diagnosed in Australia in 2011; of these 15 (8%) were among the Aboriginal and Torres Strait Islander population, 145 (76%) were among the non-Indigenous population and Aboriginal and Torres Strait Islander status was not reported for 30 (16%) cases.
- In 2011, the rate of diagnosis of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population was 3 per 100000 compared to 1 per 100000 in the non-Indigenous population.
- A total of 10261 cases of newly diagnosed hepatitis C infection were reported in Australia in 2011; 652 (6%) occurred among the Aboriginal and Torres Strait Islander population, 3443 (34%) were among the non-Indigenous population and Aboriginal and Torres Strait Islander status was not reported for 6166 (60%) cases.
- The rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population was 142 per 100000 compared to 40 per 100000 in the non-Indigenous population.
- At the end of 2011, an estimated 226700 people were living with chronic hepatitis C infection including an estimated 49500 with moderate to severe liver disease.

Table 1 Aboriginal and Torres Strait Islander population in Australia, 2006, by State/Territory

State/Territory	Census 2006 Number ¹	Estimated resident population Number ²
ACT	3 873	4 282
NSW	138 504	152 685
NT	53 663	64 005
QLD	127 581	144 885
SA	25 556	28 055
TAS	16 770	18 415
VIC	30 140	33 517
WA	58 709	70 966
Total	455 016	517 043

1 Australian Bureau of Statistics. 2006 Census of population and housing. Indigenous status by age by sex. Canberra: Australian Bureau of Statistics, 2007

2 Australian Bureau of Statistics 2008. *Experimental estimates of Aboriginal and Torres Strait Islander Australians*, 2006. Canberra: Australian Bureau of Statistics, 2008

Source: Australian Bureau of Statistics 2007, 2008

Table 2 Number and rate¹ of diagnosis of bloodborne viruses and specific sexually transmissible infections in Australia², 2011, by Aboriginal and Torres Strait Islander status

Bloodborne virus/ sexually transmissible infection	Aboriginal and Torres Strait Islander		Non-Indigenous		Excluded jurisdictions ⁴
	Number ¹	Rate ²	Number ³	Rate ²	
Chlamydia	3690	1343	36556	378	ACT, NSW
Gonorrhoea	4499	673	4555	22	NSW
Infectious syphilis	196	32	1084	5	
HIV infection	22	4	1115	5	
Newly acquired hepatitis B	15	3	172	1	
Newly diagnosed hepatitis C	241	142	1730	40	ACT, QLD, TAS, VIC, NSW*,

1 Health jurisdictions in which Aboriginal and Torres Strait Islander status was reported. for more than 50% of diagnoses in each of the past five years.

2 Age standardised rate per 100000 population. Population estimates by jurisdiction and year from *Experimental estimates of Aboriginal and Torres Strait Islander Australians* (ABS 2008)

3 Includes diagnoses in cases whose Aboriginal and Torres Strait Islander status was not reported.

4 Jurisdictions in which Aboriginal and Torres Strait Island status was reported for less than 50% of diagnoses

* Data for HCV was not available for NSW in 2011

Source: State/Territory health authorities; National Notifiable Diseases Surveillance System

Main Findings

Chlamydia

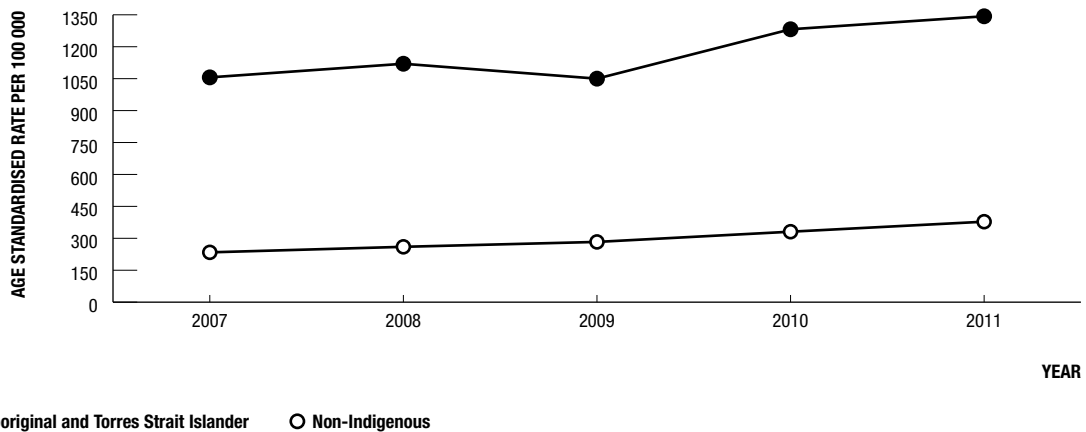
- Chlamydia continued to be the most frequently reported notifiable condition in Australia in 2011. A total of 80800 diagnoses were notified in 2011, 7044 (9%) were among the Aboriginal and Torres Strait Islander population, 33955 (42%) were among the non-Indigenous population and Aboriginal and Torres Strait Islander status was not reported for 39801 (49%) cases.
- The rate of diagnosis of chlamydia for the Aboriginal and Torres Strait Islander population was 3.5 times that of the non-Indigenous notification rate at 1343 and 378 per 100000 population, respectively.
- The rate of diagnosis of chlamydia in Australia continues to increase in both the Aboriginal and Torres Strait Islander population and in the non-Indigenous population. The rate of diagnosis of chlamydia in the Aboriginal and Torres Strait Islander population increased from 1056 in 2007 to 1343 in 2011 (27% increase). In the non-Indigenous population, the rate increased by 62%, from 234 in 2007 to 378 per 100000 population in 2011.
- Chlamydia is diagnosed predominantly among young people. In 2011, 80% of diagnoses were in 15 to 29 year olds among both the Aboriginal and Torres Strait Islander population and non-Indigenous population.
- In major cities, the rate of diagnosis of chlamydia in the Aboriginal and Torres Strait Islander population was 3.2 times higher than that among the non-Indigenous population, 4.2 times higher in outer regional areas and 8.3 times higher in remote areas.
- In 2010 – 2011 a large trial was underway in 66 remote communities in Northern Territory, Western Australia and Far North Queensland focused on increased testing for sexually transmissible infections, which may have contributed to increased notifications in this period.

Chlamydia continues to be the most frequently reported notifiable condition in Australia in 2011. A total of 80800 diagnoses were notified in 2011, of these 7044 (9%) were among the Aboriginal and Torres Strait Islander population, 33955 (42%) were among the non-Indigenous population and Aboriginal and Torres Strait Islander status was not reported for 39801 (49%) cases.

In the period 2007 – 2011, Aboriginal and Torres Strait Islander status was not reported for more than 50% of diagnoses in New South Wales, Queensland and the Australian Capital Territory and as such notification data for chlamydia excludes these jurisdictions. Hereinafter notification data for the period 2007 – 2011 refers to data notified from the Northern Territory, South Australia, Tasmania, Victoria and Western Australia.

The rate of diagnosis of chlamydia for the Aboriginal and Torres Strait Islander population in 2011 was 3.5 times that of the non-Indigenous notification rate at 1343 and 378 per 100000 population respectively (Figure 4). The rate of diagnosis of chlamydia in the Aboriginal and Torres Strait Islander population increased from 1056 in 2007 to 1343 in 2011 (27% increase). In the non-Indigenous population, the rate increased by 62%, from 234 in 2007 to 378 per 100000 population in 2011 (Figure 4).

Figure 4 Age standardised rate of chlamydia diagnoses by Aboriginal and Torres Strait Islander status¹ and year

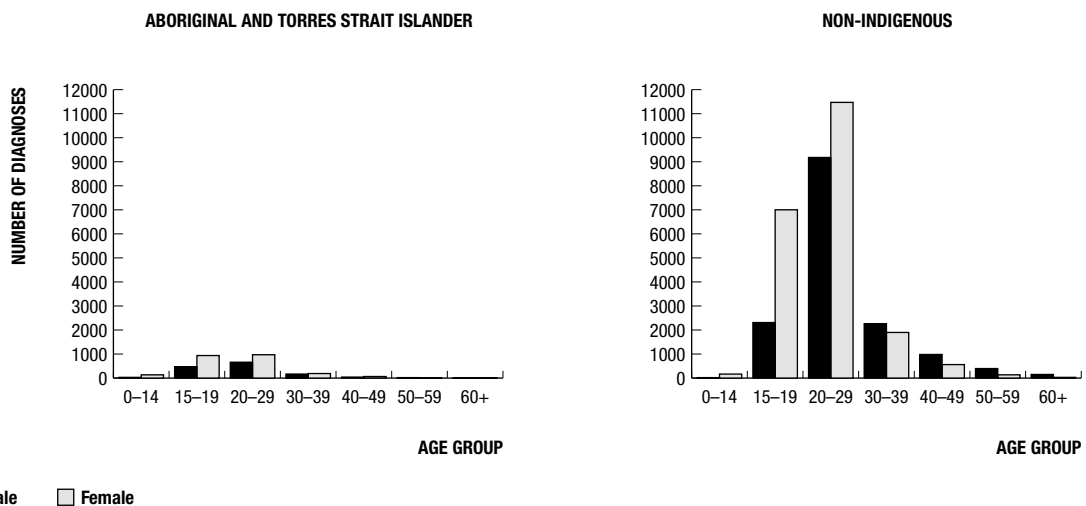


¹ Jurisdictions (NT, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Chlamydia is diagnosed predominantly among young people. In 2011, 80% of diagnoses were in 15 to 29 year olds in both Aboriginal and Torres Strait Islander and non-Indigenous populations (Figure 5). The number of diagnoses of chlamydia in 2011 peaked in the 15 – 19 year age group in both the Aboriginal and Torres Strait Islander and non-Indigenous populations (Figure 5). In the Aboriginal and Torres Strait Islander population, the female to male ratio of chlamydia diagnoses in the age groups 15 – 19 years, and 20 – 29 years was 2.0 and 3.0, respectively. In the non-Indigenous population the ratio was 1.5 and 1.2 in the age groups 15 – 19 and 20 – 29 years, respectively.

In 2011, 2305 and 1385 diagnoses of chlamydia were made among Aboriginal and Torres Strait Islander females and males respectively, providing a female to male ratio of 1.6:1. The female to male ratio of chlamydia diagnoses in 2011 for the non-Indigenous population was 1.4:1.

Figure 5 Number of chlamydia diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹, sex and age group

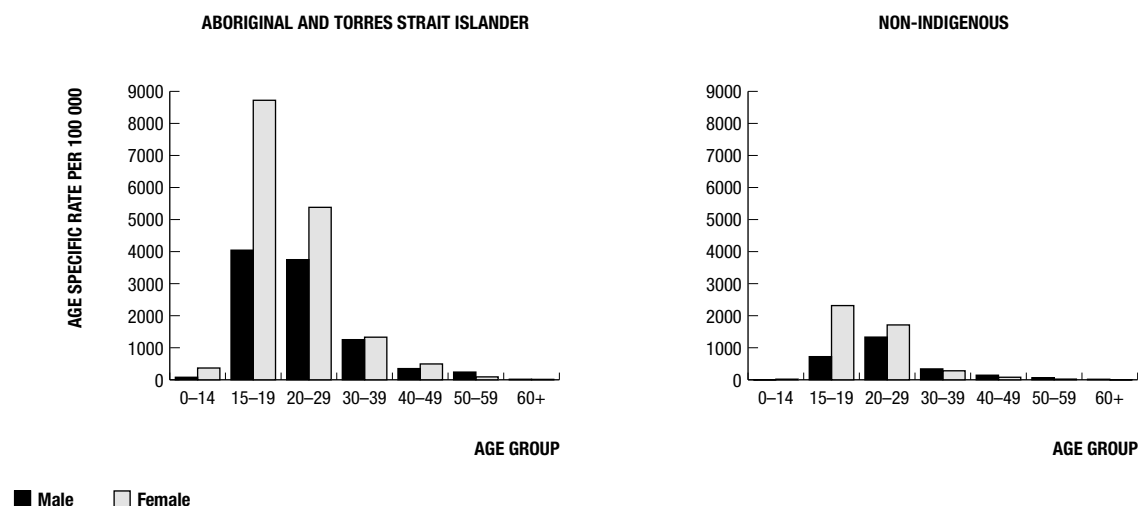


¹ Jurisdictions (NT, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

The rate of diagnosis of chlamydia in the Aboriginal and Torres Strait Islander population in the 15 – 19 and the 20 – 29 year age groups in 2011 was 4 times and 3 times higher, respectively, than that in the non-Indigenous population (Figure 6). The highest rates of diagnoses occurred among females in the 15 – 19 and 20 – 29 year age groups (Figure 6), and may partly reflect higher rates of access to health services and subsequent testing in these populations.

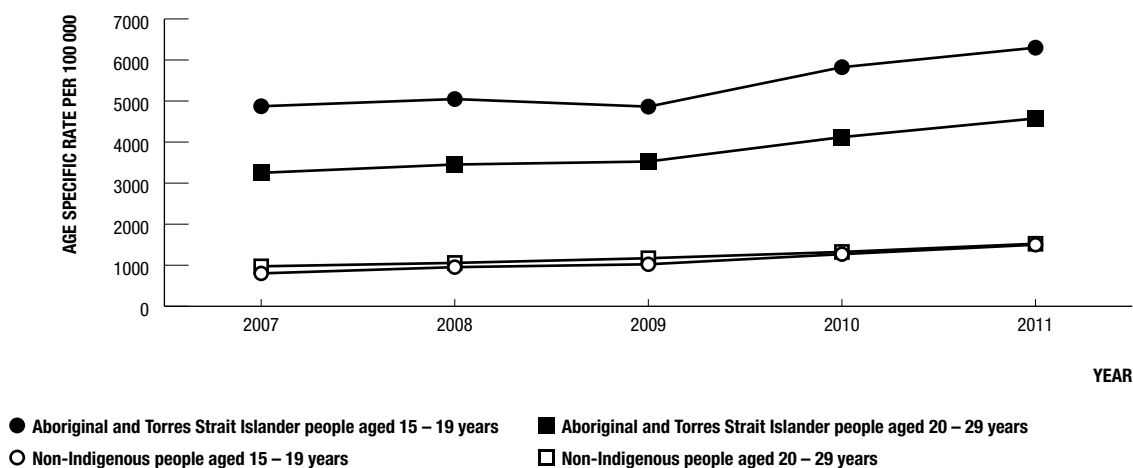
From 2007 – 2011, the rate of chlamydia diagnosis in the Aboriginal and Torres Strait Islander population in the 15 – 19 and 20 – 29 year age groups increased by 29% and 40%, respectively, whereas in the non-Indigenous population the rate increased by 87% and 57% in respective age groups (Figure 7).

Figure 6 Age specific rate of chlamydia diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹, sex and age group



¹ Jurisdictions (NT, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Figure 7 Age specific rate of chlamydia diagnoses in selected age groups by Aboriginal and Torres Strait Islander status¹ and year

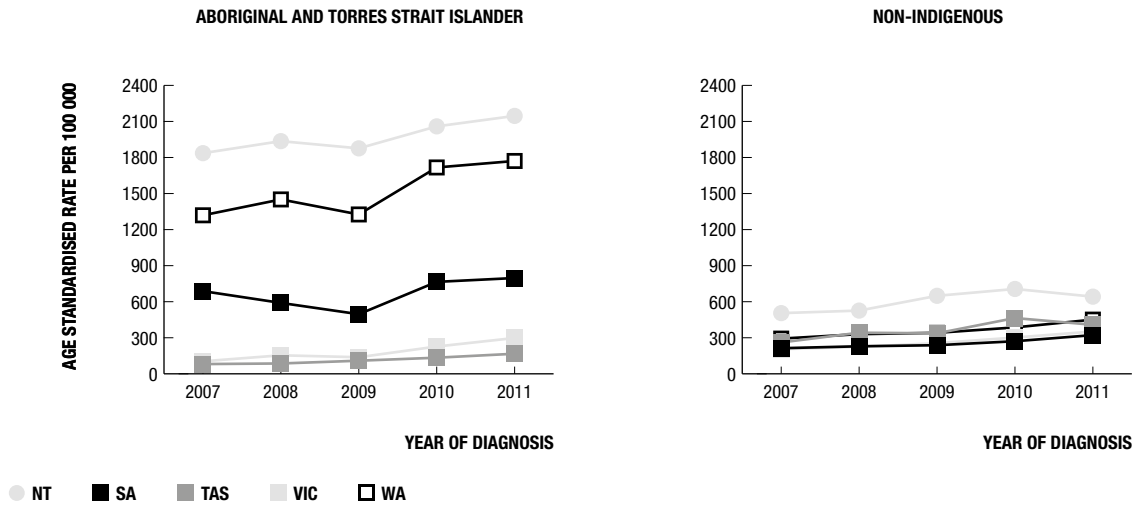


¹ Jurisdictions (NT, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In the five years from 2007 – 2011, the rate of diagnosis of chlamydia increased by 27% in the Aboriginal and Torres Strait Islander population and by 62% in the non-Indigenous population (Figure 4). However this discrepancy may be an artefact of increased testing.

The rate of diagnosis of chlamydia from 2007 – 2011 in the Aboriginal and Torres Strait Islander and non-Indigenous populations increased by 34% and 62 % in Western Australia, 17% and 27% in the Northern Territory, 187% and 72% in Victoria, 106% and 56% in Tasmania, and 16% and 51% in South Australia, respectively (Figure 8).

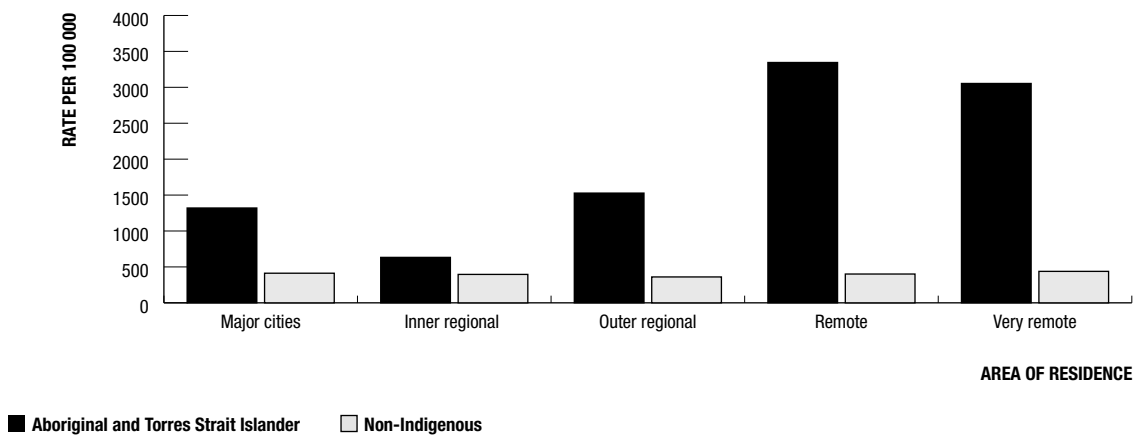
Figure 8 Age standardised rate of chlamydia diagnoses by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



¹ Jurisdictions (NT, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, the rate of diagnosis of chlamydia in the Aboriginal and Torres Strait Islander population resident in major cities (1320 per 100000) was 3.2 times higher than the rate (412 per 100000) in the non-Indigenous population, 1.6 higher in inner regional centres, 4.2 times higher in outer regional areas, 8.3 times higher in remote areas and 7.0 times greater in very remote areas (Figure 9).

Figure 9 Rate of chlamydia diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹ and area of residence



¹ Jurisdictions (NT, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Donovanosis

- Since 2007 there have been fewer than 3 cases per year and in 2011 there were no cases diagnosed nationally. The National Donovanosis Eradication (Elimination) Project was implemented in 2001 – 2004, following the introduction of improved methods of diagnosis and treatment of Donovanosis. The project was carried out employing strategies such as targeted surveillance, high quality education and support of primary health care workers in their management of genital ulcerative disease, intermittent or short course oral medication and new laboratory techniques, for the elimination of Donovanosis.

The decline in annual number of diagnoses of Donovanosis, from 14 in 2005 to zero in 2011 may be attributed to improved case ascertainment and treatment. There were no diagnoses of Donovanosis in New South Wales, South Australia, Tasmania and Victoria in the past five years, no diagnoses in Western Australia in the past three years, and no diagnoses in Northern Territory in the past two years.

Gonorrhoea

- A total of 12087 cases of gonorrhoea were diagnosed in Australia in 2011; 4535 (37%) were among the Aboriginal and Torres Strait Islander population, 3705 (31%) among the non-Indigenous population and Aboriginal and Torres Strait Islander status was not reported for 3847 (32%) diagnoses.
- In 2011, the rate of gonorrhoea diagnosis in the Aboriginal and Torres Strait Islander population was more than 30 times that for the non-Indigenous population (673 vs. 22 per 100000 population).
- In 2011, 78% of cases among Aboriginal and Torres Strait Islander cases were diagnosed among people in the age group 15 – 29 years compared with 53% in the non-Indigenous population.
- The female to male ratio (1.2:1) of cases of gonorrhoea diagnosed in 2011 in the Aboriginal and Torres Strait Islander population suggests transmission predominantly through heterosexual contact. In contrast the male to female ratio of 4:1 in the non-Indigenous population suggests transmission occurring predominantly by sex between males.
- In 2011, gonorrhoea was diagnosed in the Aboriginal and Torres Strait Islander population at substantially higher rates than in the non-Indigenous population in all areas of residence, especially in remote and very remote areas of Australia.

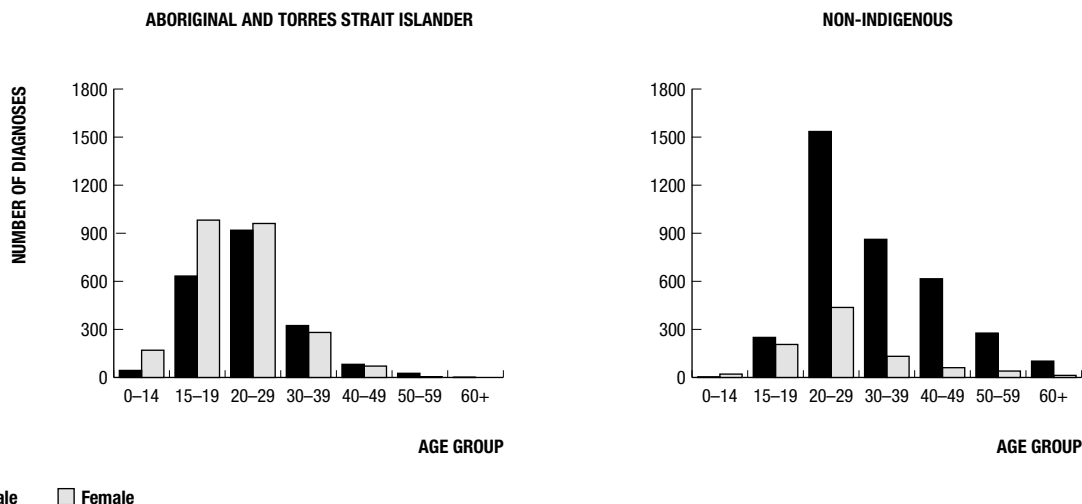
Of 12087 diagnoses of gonorrhoea in 2011, there were more notifications made among the Aboriginal and Torres Strait Islander population (4535) than for the non-Indigenous population (3705). Aboriginal and Torres Strait Islander status was not reported for 3847 cases or 32% of total diagnoses made nationally.

In the period 2007 – 2011, Aboriginal and Torres Strait Islander status was not reported for more than 50% of diagnoses in Australian Capital Territory and New South Wales notifications. Hereinafter notification data for the period 2007 – 2011 refers to data notified from the Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia.

Differences in age at diagnoses exist between the Aboriginal and Torres Strait Islander population and the non-Indigenous population. In 2011, 36% and 10% of gonorrhoea cases diagnosed were among 15 – 19 year olds in the Aboriginal and Torres Strait Islander and non-Indigenous populations, respectively (Figure 10). Whereas in both populations, 42% of all cases of gonorrhoea diagnosed in 2011 were among people aged 20 – 29 years (Figure 10).

In all jurisdictions except New South Wales in 2011, 2029 and 2470 diagnoses of gonorrhoea were made among Aboriginal and Torres Strait Islander males and females, giving a male to female ratio of 0.8:1 (Figure 10). In comparison, 3645 males and 910 females from the non-Indigenous population were diagnosed with gonorrhoea in 2011; giving a male to female ratio of gonorrhoea diagnoses of 4:1 (Figure 10). In the Aboriginal and Torres Strait Islander population, the male to female ratio of gonorrhoea diagnoses in the age groups 15 – 19 years, 20 – 29 years, 30 – 39 years and 40 – 49 years was 0.6, 0.9, 1.2 and 1.2, respectively. In the non-Indigenous population the male to female ratio was 1.2, 3.5, 6.5 and 10 in the corresponding age groups respectively, suggesting increasing transmission of gonorrhoea through sex between men with increasing age.

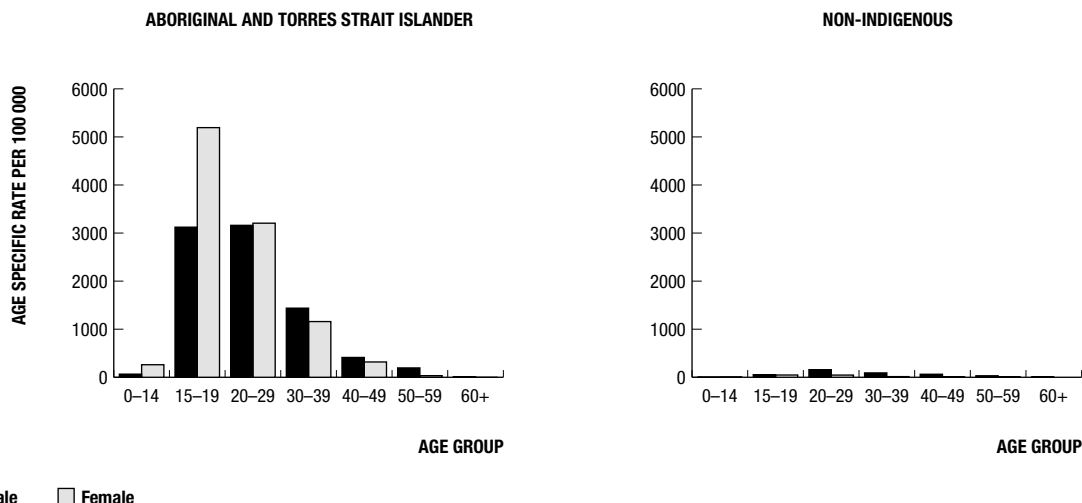
Figure 10 Number of gonorrhoea diagnoses by Aboriginal and Torres Strait Islander status¹, sex and age group, 2011



¹ Jurisdictions (NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In the age groups 15 – 19 and 20 – 29 years, the rate of diagnosis was 82 and 31 times higher among the Aboriginal and Torres Strait Islander population than the non-Indigenous population (Figure 11).

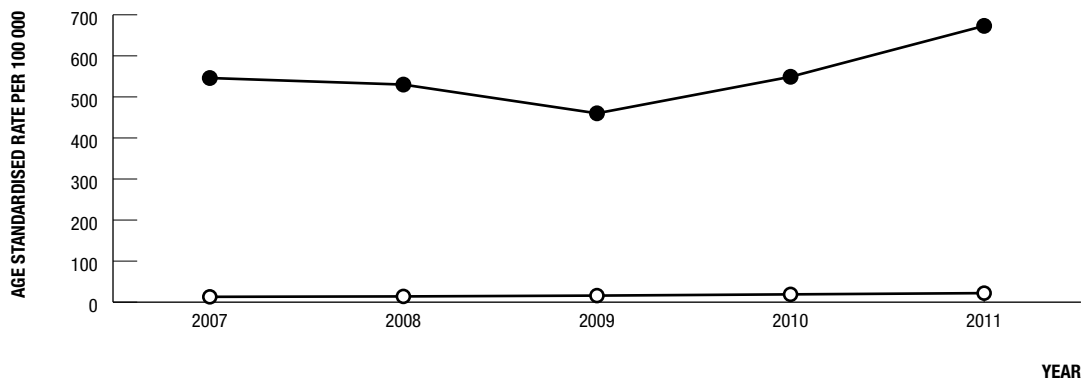
Figure 11 Age specific rate of gonorrhoea diagnosis by Aboriginal and Torres Strait Islander status¹ and sex, 2011



¹ Jurisdictions (NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, the rate of diagnosis of gonorrhoea in the Aboriginal and Torres Strait Islander population was 30 times higher than the non-Indigenous notification rate at 673 and 22 per 100000 population respectively. From 2007 – 2011, the rate of diagnosis of gonorrhoea increased by 23% in the Aboriginal and Torres Strait Islander population, from 546 to 673 per 100000 population, while an increase of 41% was observed in non-Indigenous rates over the same period from 13 to 22 per 100000 (Figure 12).

Figure 12 Age standardised rate of gonorrhoea diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹ and year

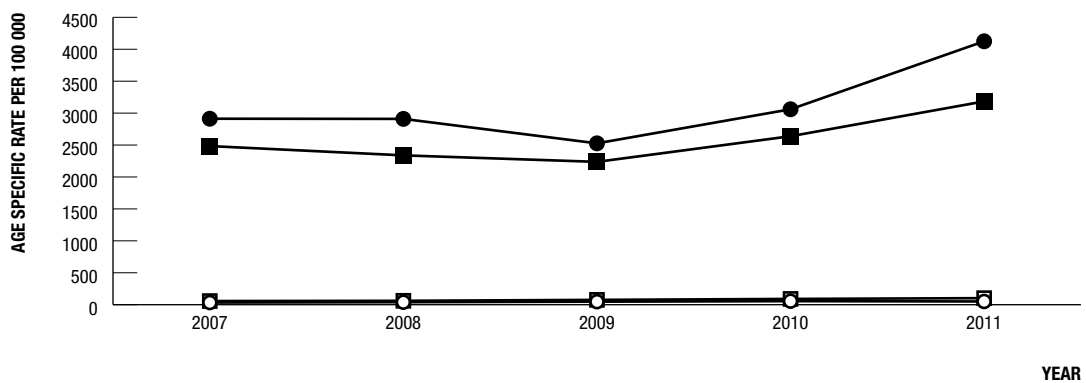


● Aboriginal and Torres Strait Islander ○ Non-Indigenous

¹ Jurisdictions (NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

From 2007 – 2011, the rate of gonorrhoea diagnosis in the Aboriginal and Torres Strait Islander population increased by 42% in the 15 – 19 year age group and by 28% in the 20 – 29 year age group, whereas in the non-Indigenous population the rate increased by 51% and 80% in respective age groups (Figure 13).

Figure 13 Age specific rate of gonorrhoea diagnoses in selected age groups by Aboriginal and Torres Strait Islander status¹ and year

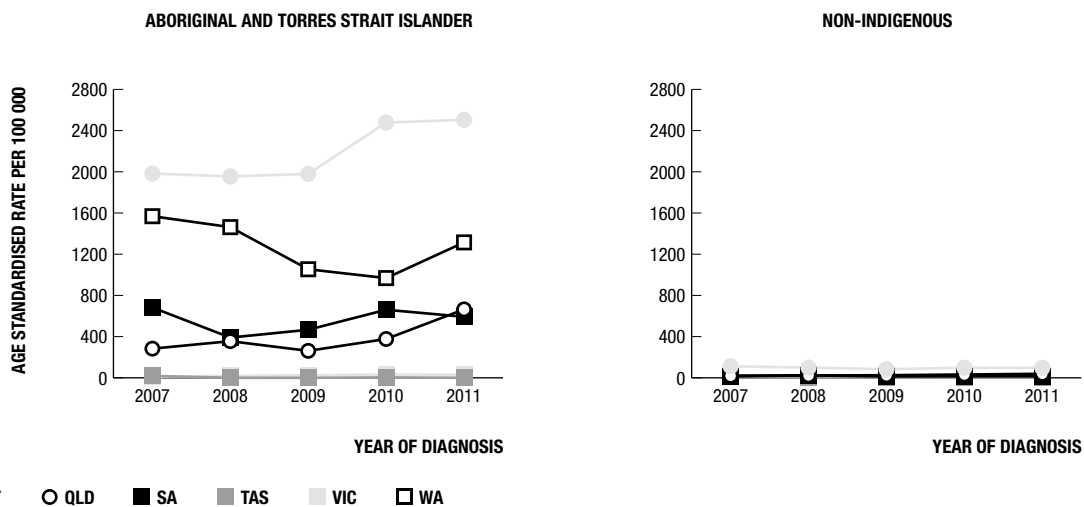


● Aboriginal and Torres Strait Islander people aged 15 – 19 years ■ Aboriginal and Torres Strait Islander people aged 20 – 29 years
○ Non-Indigenous people aged 15 – 19 years □ Non-Indigenous people aged 20 – 29 years

¹ Jurisdictions (NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

From 2007 – 2011, the rate of diagnosis of gonorrhoea in the Aboriginal and Torres Strait Islander population decreased by 13% and 16% in South Australia and Western Australia, respectively, and increased by 26%, 183% and 211% in the Northern Territory, Queensland and Victoria, respectively. Among the non-Indigenous population the rate increased by 105%, 7%, 88% and 50% in Queensland, South Australia, Victoria and Western Australia respectively, and decreased by 13% in the Northern Territory during the same period (Figure 14).

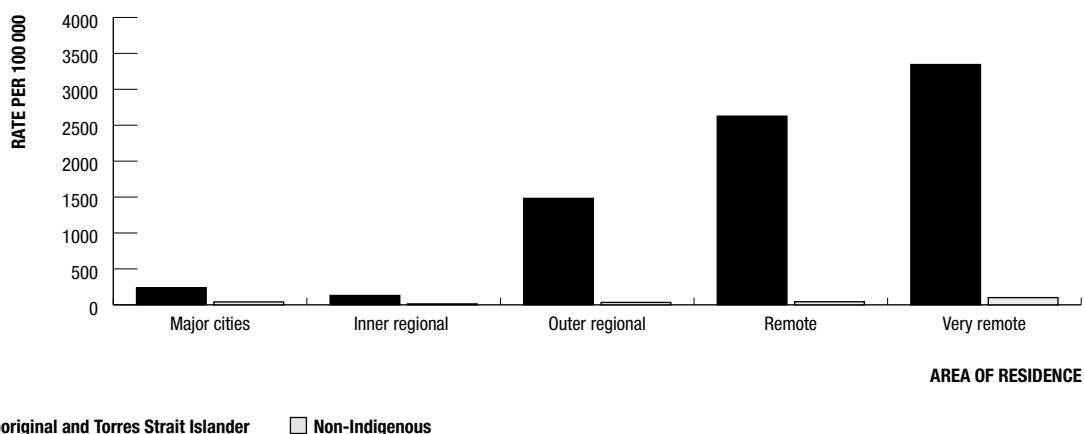
Figure 14 Age standardised rate of gonorrhoea diagnoses by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



¹ Jurisdictions (NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011 in the Aboriginal and Torres Strait Islander population resident in major cities, inner regional, outer regional, remote and very remote areas (all jurisdictions except NSW), the population rate of gonorrhoea was 6 times, 10 times, 44 times, 61 times, and 33 times higher than the rate in the non-Indigenous population, respectively (Figure 15).

Figure 15 Rate of gonorrhoea diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹ and area of residence



¹ Jurisdictions (NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Infectious syphilis

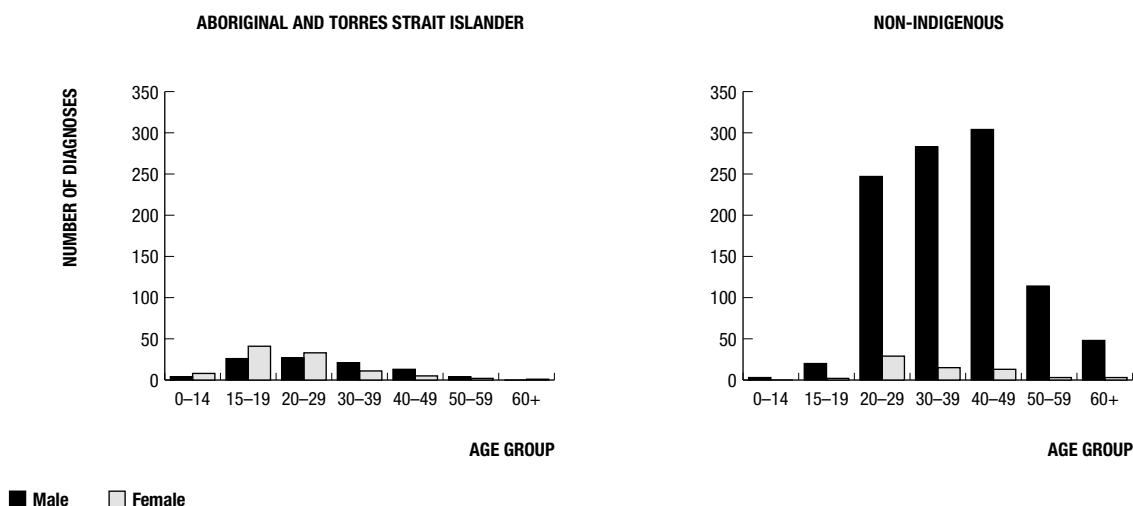
- Diagnoses of infectious syphilis have been reported nationally since 2004.
- A total of 1303 cases of infectious syphilis were notified nationally in 2011, with 196 (15%) among the Aboriginal and Torres Strait Islander population, 1038 (80%) among the non-Indigenous population and a further 69 (5%) cases for which Aboriginal and Torres Strait Islander status was not reported. Information on Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses of infectious syphilis in each of the past five years through all health jurisdictions in Australia.
- From 2007 – 2011, the rate of diagnosis of infectious syphilis remained stable at 30 per 100000 Aboriginal and Torres Strait Islander population. In the same period the rate of diagnosis in the non-Indigenous population was 6 per 100000 in 2007 and 5 in 2011.
- The rate of diagnosis of infectious syphilis in the Aboriginal and Torres Strait Islander population declined in 2007 – 2009, and increased in 2010 – 2011, particularly in Queensland and among 15 – 19 year olds, attributed to an outbreak of syphilis in some Queensland remote communities.
- The number of diagnoses of infectious syphilis among Aboriginal and Torres Strait Islander females and males in 2011 was 101 and 95 (male to female ratio of 0.94:1), respectively, whereas in the non-Indigenous population there were 65 females and 1019 males diagnosed in 2011 (male to female ratio of 15.6:1). This suggests transmission occurs predominantly through heterosexual contact in the Aboriginal and Torres Strait Islander population and by sex between males in the non-Indigenous population.
- In 2011, 87% and 55% of diagnoses of infectious syphilis in the Aboriginal and Torres Strait Islander and non-Indigenous populations respectively occurred among people aged less than 40 years of age.
- In 2011, the rate of infectious syphilis diagnosis among the Aboriginal and Torres Strait Islander population increased as remoteness of residence increased, whereas in the the non-Indigenous population the rate was highest in urban and regional areas. In 2011 in the Aboriginal and Torres Strait Islander population resident in outer regional and remote areas, the population rate of infectious syphilis was 26 times and 101 times higher than the rate in the non-Indigenous population.

Accurate and complete systems for the notification of infectious syphilis exist nationally, enabling greater than 95% of all infectious syphilis diagnoses to be notified by Aboriginal and Torres Strait Islander status.

In 2011 there were 1303 cases of infectious syphilis notified nationally, with 196 (15%) cases among the Aboriginal and Torres Strait Islander population, 1038 cases among the non-Indigenous population and a further 69 cases for which Aboriginal and Torres Strait Islander status was not reported.

In 2011, 48% of cases in the Aboriginal and Torres Strait Islander population were among males, whereas 94% of non-Indigenous cases of infectious syphilis were diagnosed in males (Figure 16). The male to female ratio among the Aboriginal and Torres Strait Islander cases indicates transmission of infectious syphilis predominantly through heterosexual contact and through sex between males in the non-Indigenous population.

Figure 16 Number of infectious syphilis diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹, sex and age group

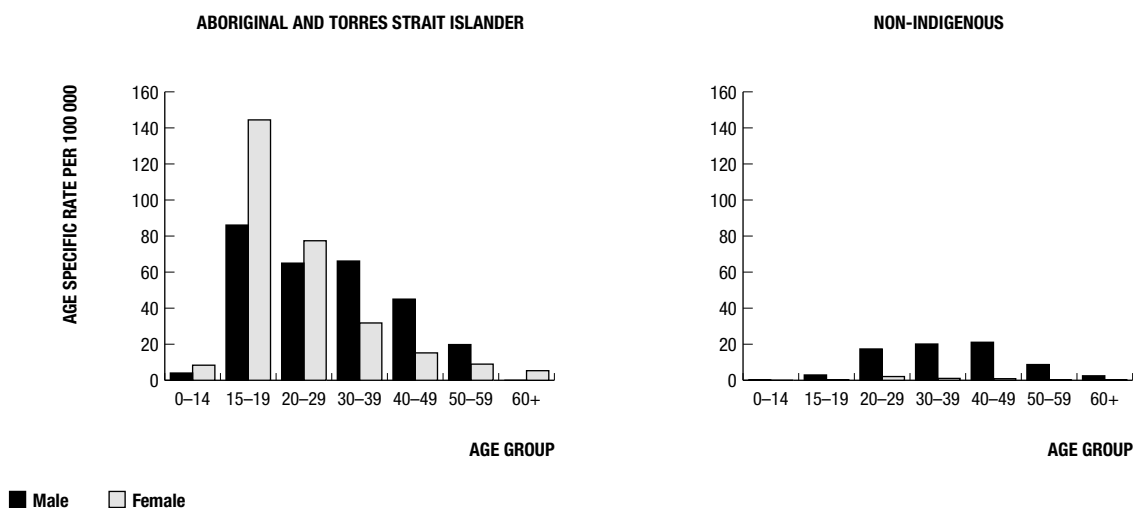


¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC, ACT and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, the rate of diagnosis of infectious syphilis in the Aboriginal and Torres Strait Islander population was higher in all age groups than in the non-Indigenous population, particularly the 15 – 19 year age group where the rate of diagnosis was 25 times higher. In 2011, the rate of diagnosis of infectious syphilis was highest in the 15 – 19 year age group for the Aboriginal and Torres Strait Islander population and 40 – 49 year age group for the non-Indigenous population (Figure 17).

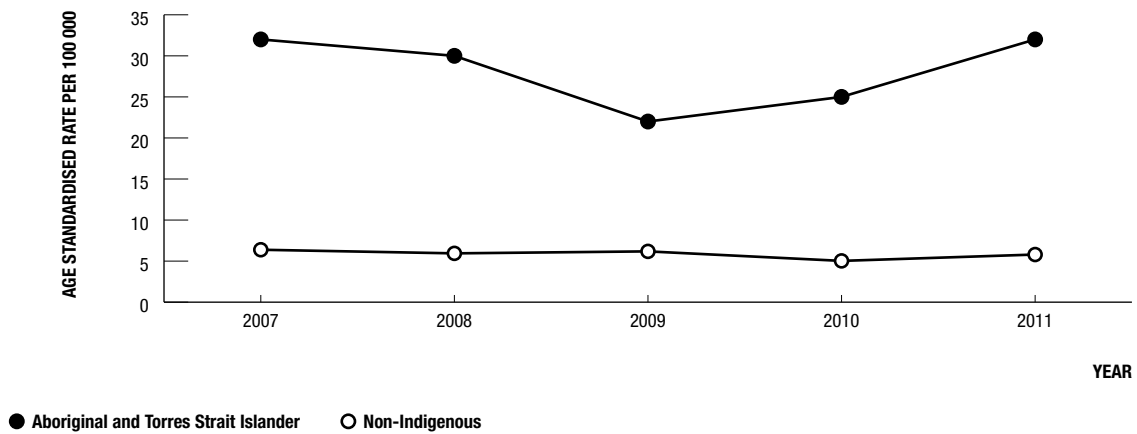
The population rate of diagnosis of infectious syphilis in the Aboriginal and Torres Strait Islander population remained at 30 in 2007 and 2011. This rate is 6 times that reported in the non-Indigenous population; 6 per 100000 in 2007 and 5 per 100000 in 2011 (Figure 18). Diagnoses of infectious syphilis in the Aboriginal and Torres Strait Islander population declined from 191 cases in 2007 to 118 in 2009 and then increased to 196 in 2011.

Figure 17 Age specific rate of infectious syphilis diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹, sex and age group



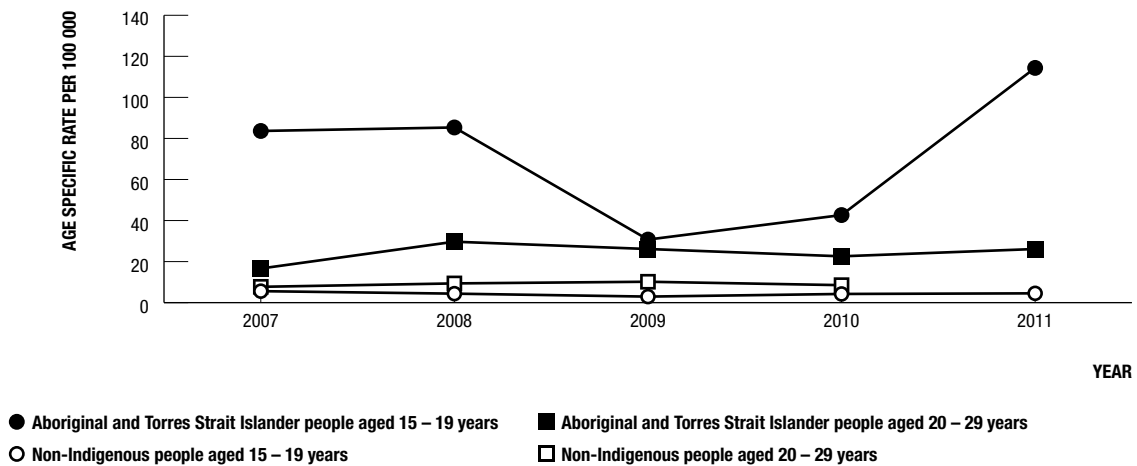
¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC, ACT and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Figure 18 Age standardised rate of infectious syphilis diagnoses by Aboriginal and Torres Strait Islander status¹ and year



¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC, ACT and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Figure 19 Age specific rate of infectious syphilis diagnoses in selected age groups in 2011 by Aboriginal and Torres Strait Islander status¹ and year

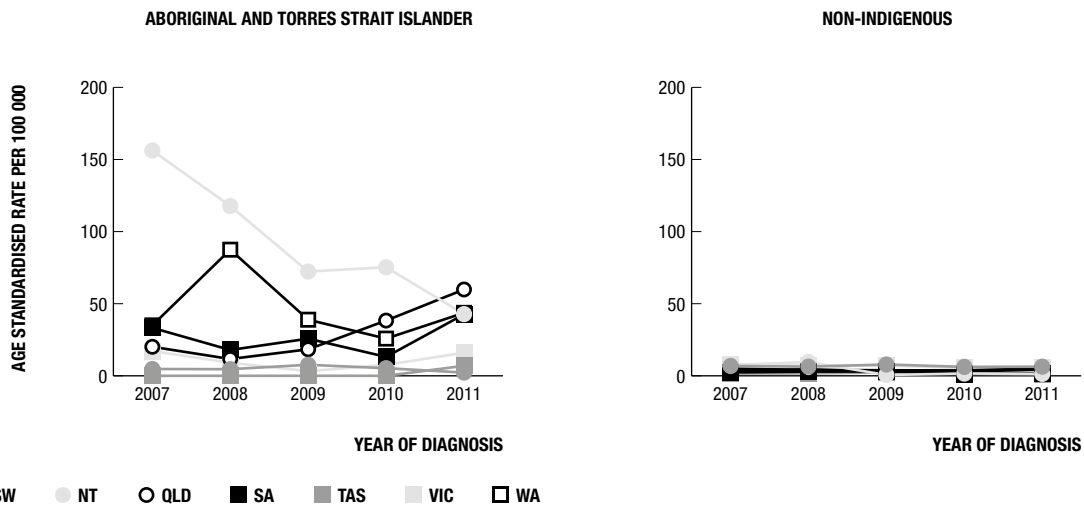


¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC, ACT and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, the majority of diagnoses of infectious syphilis in the Aboriginal and Torres Strait Islander population occurred in Queensland (60%), Western Australia (15%) and Northern Territory (14%). In contrast the majority of infectious syphilis diagnoses in the non-Indigenous population occurred in New South Wales (38%), Victoria (30%) and Queensland (19%).

From 2007 – 2011, the rate of diagnosis of infectious syphilis in the Aboriginal and Torres Strait Islander population decreased steadily in the Northern Territory from 156 in 2007 to 43 per 100000 in 2011, tripled in Queensland (20 to 60 per 100000) and fluctuated in Western Australia (Figure 20).

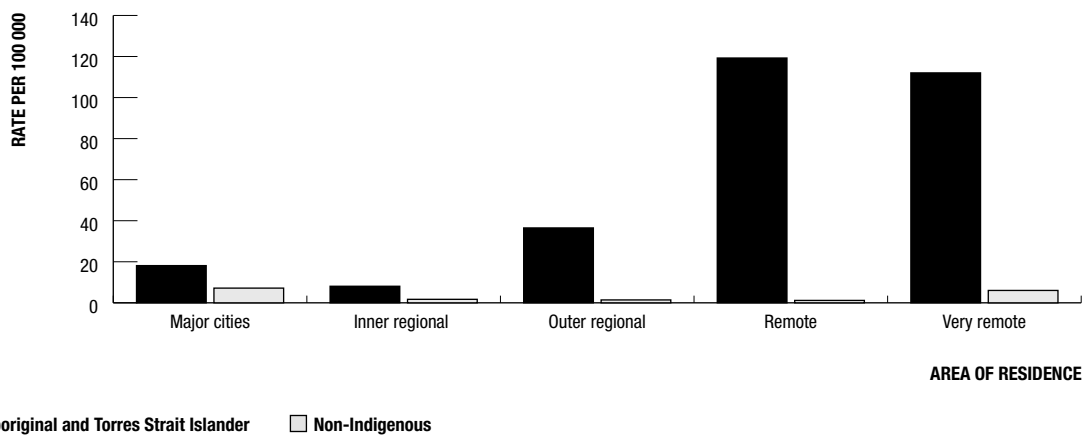
Figure 20 Age standardised rate of infectious syphilis diagnoses by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC, ACT and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011 in the Aboriginal and Torres Strait Islander population resident in major cities, inner regional, outer regional, remote and very remote areas, the population rate of infectious syphilis was 2.6 times, 4.7 times, 26 times, 101 times, and 19 times higher than the rate in the non-Indigenous population, respectively (Figure 21).

Figure 21 Rate of infectious syphilis diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹ and area of residence



¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC, ACT and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Bacterial sexually transmissible infections reported in persons aged less than 16 years

The occurrence of sexually transmissible infections among the Aboriginal and Torres Strait Islander population aged less than 16 years linked to child sexual assault is a sensitive issue and often unnecessarily linked. The occurrence of chlamydia, gonorrhoea and infectious syphilis among people aged 15 years or younger is described, based on cases notified to the National Notifiable Diseases Surveillance System and is summarized only for those jurisdictions in which Aboriginal and Torres Strait Islander status was reported for at least 50% of diagnoses in each year over the past five years.

From 2007 – 2011, a total of 3079 and 5708 cases of chlamydia were reported among Aboriginal and Torres Strait Islander and the non-Indigenous population aged less than 16 years respectively. In the same period 1676 and 229 cases of gonorrhoea and 55 and 7 cases of infectious syphilis were reported in the Aboriginal and Torres Strait Islander and non-Indigenous populations aged less than 16 years respectively. Within the Aboriginal and Torres Strait Islander population, the majority (95% for chlamydia, 94% for gonorrhoea and 96% for infectious syphilis) of these diagnoses were among people aged 13 to 15 years. A similar pattern of diagnosis occurred among the non-Indigenous young population where 97% of chlamydia, 93% of gonorrhoea and 71% of infectious syphilis diagnoses were among people aged 13 – 15 years. The majority of diagnoses of sexually transmissible infections in the young Aboriginal and Torres Strait Islander population occurred in areas of known high endemicity of STIs and where screening for sexually transmissible infections is routinely carried out. Caution should be taken in describing these data as related to child sexual assault; it is likely that a significant proportion of these notifications are the result of early sexual debut and/or sex with peer-aged partners.

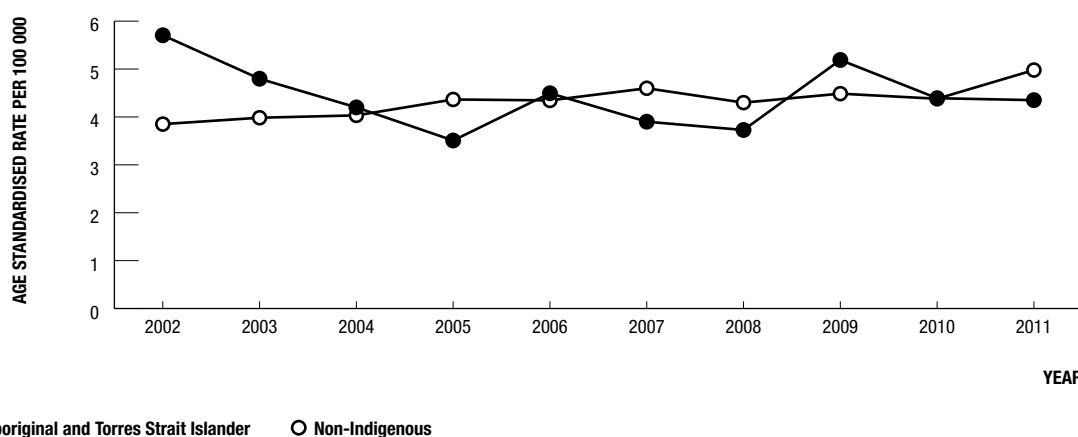
HIV infection

- A total of 1137 diagnoses of HIV infection were reported in 2011; 22 were identified as Aboriginal and Torres Strait Islander. In 2011, the population rate of diagnosis of HIV was similar for both populations; 4.4 per 100000 in the Aboriginal and Torres Strait Islander population compared to 5.0 per 100000 in the non-Indigenous population.
- In Australia the number of new diagnoses of HIV in Australia increased overall by 8% between 2007 and 2011 while the number of diagnoses in the Indigenous population has remained stable over the same period.
- During the period 2002 – 2011, 219 cases of HIV were diagnosed among the Aboriginal and Torres Strait Islander population, 74% were among males, the median age at diagnosis was 34 years; 25% of cases were classified as newly acquired cases, and 20% were newly diagnosed with a CD4+ cell count of less than 200 cells/μl, classified as advanced HIV infection.
- After excluding non-Indigenous cases whose infection was acquired in a high prevalence country in the period 2007 – 2011, a lower proportion of new HIV diagnoses were among males (79% among Aboriginal and Torres Strait Islander cases vs. 94% for non-Indigenous cases), a higher proportion were attributed to injecting drug use (16% vs. 2%) and a similar proportion to heterosexual contact (17% vs 16%).

All jurisdictions report accurately and complete data sets for HIV diagnosis. Accurate and complete systems for the notification of HIV diagnoses exist nationally that enables greater than 90% of all HIV diagnoses to be notified by Aboriginal and Torres Strait Islander status.

In 2011, of the 1137 HIV diagnoses, 1115 identified as the non-Indigenous population and 22 were among the Aboriginal and Torres Strait Islander population. The population rate of diagnosis of HIV was similar for both populations with a rate of 4.4 and 5.0 per 100000 for the Aboriginal and Torres Strait Islander population and non-Indigenous population, respectively (Figure 22).

Figure 22 Age standardised rate of new HIV diagnoses by Aboriginal and Torres Strait Islander status¹ and year



¹ Cases and populations from high HIV prevalence countries were excluded from the non-Indigenous rate.

Of the 219 cases diagnosed among the Aboriginal and Torres Strait Islander population during 2002 – 2011, 74% of cases were diagnosed among males, the median age at diagnosis was 34 years, 25% of cases were classified as newly acquired cases, and 20% were classified as having advanced HIV infection, based on a CD4+ cell count of less than 200 cell/μl) (Table 1.3.1).

National surveillance for newly diagnosed HIV infection in Aboriginal and Torres Strait Islander people

Table 3 Characteristics of cases of newly diagnosed HIV infection in Aboriginal and Torres Strait Islander people¹, 2002 – 2011, by year. Number of cases, median age and percent (number) of total cases by sex, newly acquired infection, late HIV diagnosis, State/Territory and HIV exposure category

Characteristic	Year of HIV diagnosis										Total
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Total cases	27	23	22	18	23	19	19	24	22	22	219
Males (%)	55.6	73.9	72.7	83.3	73.9	84.2	77.9	83.3	68.2	77.3	74.4
Median age (years)	36	34	29	33	31	33	36	37	35	33	34
Newly acquired infection (%)	22.2 (6)	17.4 (4)	31.8 (7)	16.7 (3)	30.4 (7)	26.3 (5)	31.6 (6)	29.2 (7)	22.7 (5)	22.7 (5)	25.1 (55)
HIV status at diagnosis (%)²											
Late HIV diagnosis	29.6	4.3	4.5	5.6	13.0	26.3	21.1	12.5	18.2	4.5	14.2
Advanced HIV infection	18.5	26.1	31.8	11.1	8.7	10.5	15.8	33.3	9.1	36.4	20.5
State/Territory (%)											
ACT	–	–	–	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
NSW	29.6 (8)	17.4 (4)	18.2 (4)	11.1 (2)	38.1 (9)	42.1 (8)	38.9 (8)	39.1 (9)	31.8 (7)	22.7 (5)	29.2 (64)
NT	7.4 (2)	4.3 (1)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	5.6 (1)	0.0 (0)	4.5 (1)	9.1 (2)	3.7 (8)
QLD	18.5 (5)	26.1 (6)	22.7 (5)	44.4 (8)	23.8 (6)	26.3 (5)	11.1 (2)	30.4 (8)	36.4 (8)	36.4 (8)	27.9 (61)
SA	7.4 (2)	8.7 (2)	9.1 (2)	0.0 (0)	0.0 (0)	5.3 (1)	22.2 (4)	8.7 (2)	4.5 (1)	0.0 (0)	6.4 (14)
TAS	0.0 (0)	0.0 (0)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	4.4 (1)	0.0 (0)	4.5 (1)	1.4 (3)
VIC	3.7 (1)	21.7 (5)	18.2 (4)	11.1 (2)	9.5 (2)	15.8 (3)	0.0 (0)	4.4 (1)	13.6 (3)	4.5 (1)	10.0 (22)
WA	33.3 (9)	21.7 (5)	22.7 (5)	33.3 (6)	28.6 (6)	10.5 (2)	22.2 (4)	13.0 (3)	9.1 (2)	22.7 (5)	21.5 (47)
HIV exposure category (%)											
Men who have sex with men	25.9 (7)	31.8 (7)	52.4 (11)	27.8 (5)	47.8 (11)	47.4 (9)	47.4 (9)	52.6 (10)	60.0 (12)	66.7 (14)	45.5 (95)
Men who have sex with men, and injecting drug use	3.7 (1)	13.6 (3)	0.0 (0)	27.8 (5)	4.3 (1)	15.8 (3)	5.3 (1)	15.8 (3)	5.0 (1)	0.0 (0)	8.6 (18)
Injecting drug use ³	14.8 (4)	13.6 (3)	19.0 (4)	16.7 (3)	21.7 (5)	15.8 (3)	36.8 (7)	10.5 (2)	20.0 (4)	4.8 (1)	17.2 (36)
Heterosexual contact	55.6 (15)	40.9 (9)	28.6 (6)	27.8 (5)	26.1 (6)	21.1 (4)	10.5 (2)	21.1 (4)	15.0 (3)	23.8 (5)	28.2 (59)
Haemophilia/coagulation disorder	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Receipt of blood/tissue	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)
Mother with/at risk for HIV infection	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	4.8 (1)	0.5 (1)
Other/undetermined ⁴	0.0 (0)	4.3 (1)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	20.8 (5)	9.1 (2)	4.5 (1)	4.6 (10)

1 Aboriginal and Torres Strait Islander status at HIV diagnosis was available for cases diagnosed in the Australian Capital Territory from 1 January 2005.

2 Late HIV diagnosis was defined as newly diagnosed HIV infection with a CD4+ cell count of 200 – 349 cells/µl and advanced HIV infection was defined as newly diagnosed HIV infection with a CD4+ cell count of less than 200 CD4+ cells/µl.

3 Excludes men who have sex with men.

4 The 'Other/undetermined' HIV exposure category was excluded from the calculation of the percentage of cases attributed to each exposure category.

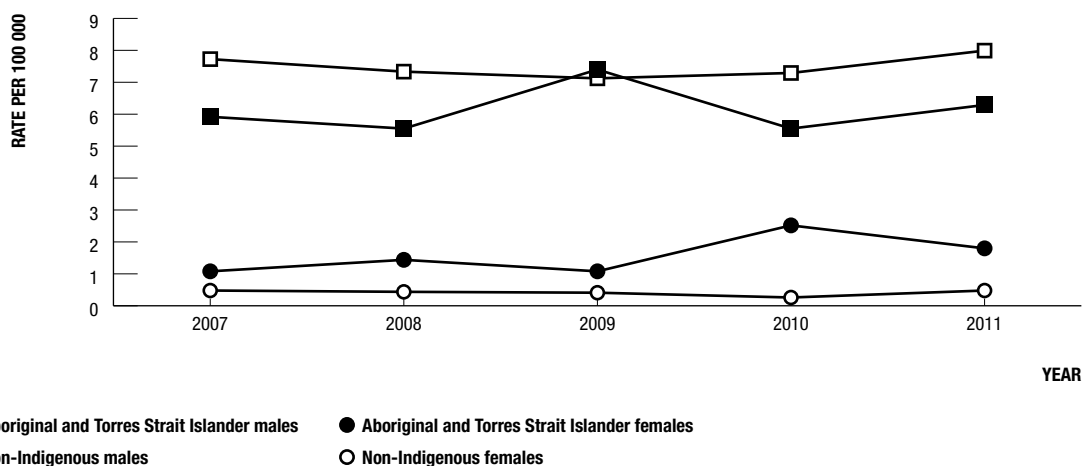
Source: State/Territory health authorities

In 2007 – 2011, the rate of HIV diagnosis in the Aboriginal and Torres Strait Islander population increased from 3.9 to 4.4 per 100000 and in the non-Indigenous population, the rate increased from 4.6 in 2000 to 5.0 per 100000 in 2010. The recent trends in the rates of HIV diagnoses in the Aboriginal and Torres Strait Islander population are based on small numbers and may reflect localised occurrences rather than national patterns.

The rate of HIV diagnosis among Aboriginal and Torres Strait Islander females increased from 2007 to 2011 from 1.1 per 100000 population in 2007 to 1.8 per 100000 population in 2011 (based on small numbers) and in non-Indigenous Australian born females the rate of HIV diagnosis remained stable at 0.5 per 100000 in 2007 and 2011 (Figure 23).

For males, the diagnosis rate remained relatively stable in both the Aboriginal and Torres Strait Islander population (5.9 in 2007 to 6.3 per 100000 in 2011) and non-Indigenous Australian born population (7.7 in 2007 to 8.0 in 2011 per 100000) (Figure 23).

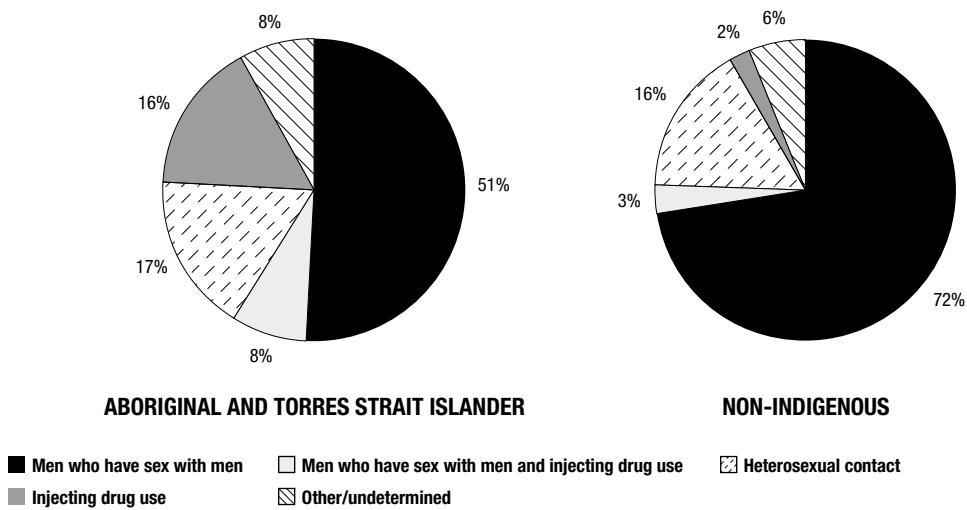
Figure 23 Rate of new HIV diagnoses by Aboriginal and Torres Strait Islander status¹, sex and year



- 1 Cases and populations from high HIV prevalence countries were excluded from the non-Indigenous rate.
- 2 Jurisdictions (NSW, NT, QLD, SA, TAS, VIC, ACT and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Excluding non-Indigenous cases whose infection was acquired in a high prevalence country, heterosexual contact was the reported source of exposure to HIV in 16% of non-Indigenous cases and 17% among Aboriginal and Torres Strait Islander cases (Figure 24). Aboriginal and Torres Strait Islander cases differed from non-Indigenous cases in that a higher proportion of infections were attributed to injecting drug use (16% among Aboriginal and Torres Strait Islander cases vs. 2% for non-Indigenous cases) and a lower proportion were among males (79% vs. 94%) (Figure 24).

Figure 24 New HIV diagnoses, 2007 – 2011, by Aboriginal and Torres Strait Islander status¹ and HIV exposure category



¹ Non-Indigenous cases from high HIV prevalence countries were excluded

The pattern of HIV diagnosis among Aboriginal and Torres Strait Islander cases differed from the national pattern by state and territory of diagnosis. During the past five years, 2007 – 2011, the majority of cases were newly diagnosed in New South Wales (34.9%), Queensland (29.3%) and Western Australia 15.1%, with South Australia and Victoria each reporting 7.5%, and Northern Territory 3.8% and Tasmania 1.9%.

In 2011, the rate of HIV diagnosis was highest among those resident in major cities in both the Aboriginal and Torres Strait Islander population and the non-Indigenous population (Figure 25). The rate of HIV diagnosis in the Aboriginal and Torres Strait Islander population was 8 per 100000 in major cities compared to 0 per 100000 in remote areas. The rate of HIV diagnosis in the non-Indigenous population was 7 per 100000 in major cities compared to 2 per 100000 in the remote areas (Figure 25 and Table 4).

Figure 25 Rate of new HIV diagnoses in 2011 by Aboriginal and Torres Strait Islander status and area of residence

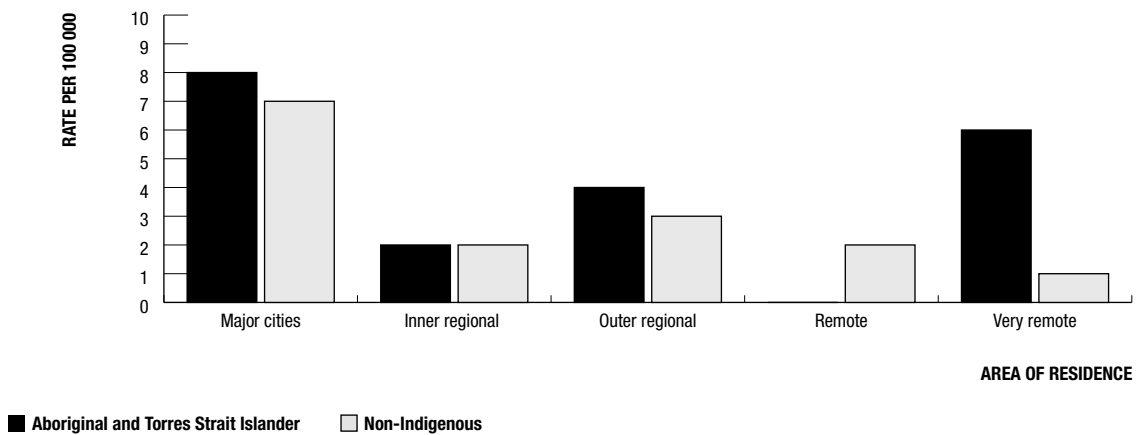


Table 4 Rate¹ of diagnosis of HIV infection, 2007 – 2011, by year, Aboriginal and Torres Strait Islander status and area of residence

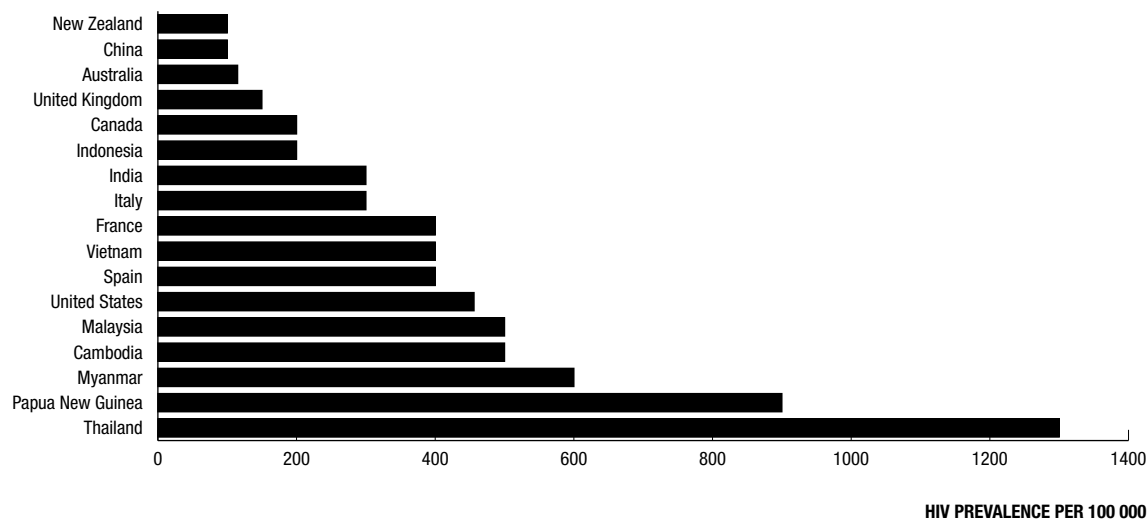
Area of residence	Aboriginal and Torres Strait Islander status	Year of diagnosis				
		2007	2008	2009	2010	2011
Major cities	Aboriginal and Torres Strait Islander	10	9	12	9	8
	Non-Indigenous ²	6	6	7	7	7
Inner regional	Aboriginal and Torres Strait Islander	3	2	2	4	2
	Non-Indigenous ²	2	2	2	2	2
Outer regional	Aboriginal and Torres Strait Islander	2	1	2	4	4
	Non-Indigenous ²	3	5	3	2	3
Remote	Aboriginal and Torres Strait Islander	0	3	3	0	0
	Non-Indigenous ²	4	1	2	1	2
Very remote	Aboriginal and Torres Strait Islander	0	0	1	1	6
	Non-Indigenous ²	0	0	2	2	1
Total	Aboriginal and Torres Strait Islander	4	4	5	5	5
	Non-Indigenous²	5	5	5	5	6

1 Rate per 100 000 population. Population estimates from *2006 Census of Population and Housing* (Australian Bureau of Statistics).

2 Includes diagnoses in people whose Aboriginal and Torres Strait Islander status was not reported.

In the Oceania region of the world, Australia is among the countries with the lowest prevalence of HIV infection in its population aged 15 – 49 years. Australia's nearest neighbour, Papua New Guinea, has the highest HIV prevalence in its population aged 15 – 49 years. It is important to view these data in the context of family and cultural connections between some Torres Strait Islander communities and Papua New Guinea population (Figure 26 and Table 5).

Figure 26 HIV prevalence in selected countries



Global comparisons

Table 5 Estimated HIV prevalence in selected countries

Country	HIV prevalence	
	2011 ¹	Rate ²
Africa		
Mauritius ³	8 800	1 000
Somalia ³	34 000	700
South Africa ³	5 600 000	17 800
Sudan ³	260 000	1 100
Zambia ³	980 000	13 500
Zimbabwe ³	1 200 000	14 300
Asia Pacific		
Australia	24 731	115
Cambodia ³	63 000	500
China ³	740 000	100
India ³	2 400 000	300
Indonesia ³	310 000	200
Japan ³	8 100	<100
Malaysia ³	100 000	500
Myanmar ³	240 000	600
New Zealand ³	2 500	100
Papua New Guinea ³	34 000	900
Philippines ³	8 700	<100
Republic of Korea ³	9 600	<100
Thailand ³	530 000	1 300
Vietnam ³	280 000	400
Europe		
France ³	150 000	400
Germany ³	67 000	100
Italy ³	140 000	300
Spain ³	130 000	400
United Kingdom ⁴	91 500	150
North America		
Canada ³	67 000	200
United States ⁵	1 148 200	456

1 Estimated number of people living with HIV/AIDS.

2 Rate per 100 000 population aged 15 – 49 years.

3 Estimated HIV prevalence in 2009.

4 Estimated HIV prevalence in 2010.

5 Estimated HIV prevalence for people aged ≥13 in 2009.

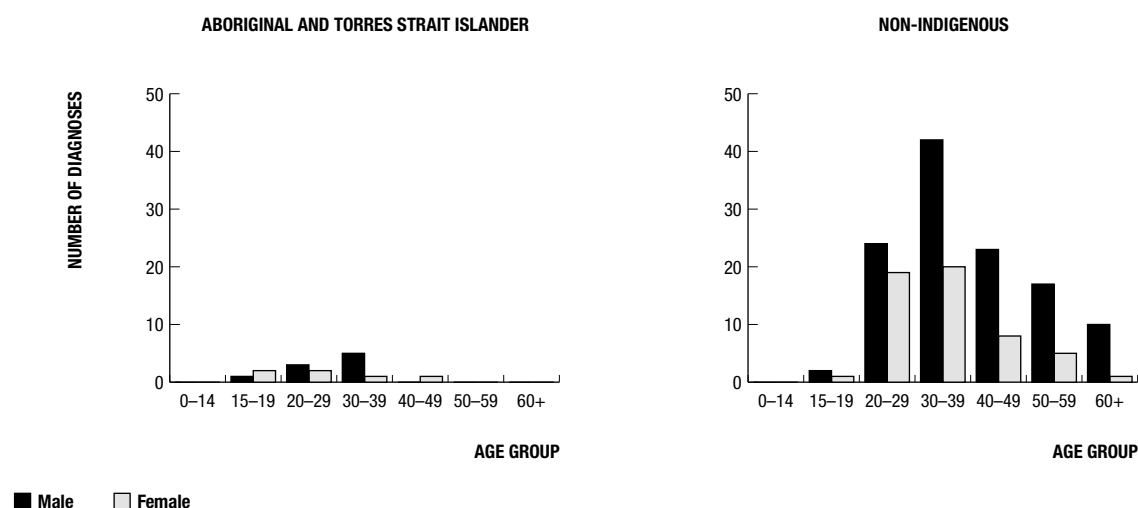
Viral hepatitis

- A total of 190 cases of newly acquired hepatitis B infection were diagnosed in Australia in 2011, 15 (8%) among the Aboriginal and Torres Strait Islander population, 145 (76%) among the non-Indigenous population and in a further 30 (16%) cases Aboriginal and Torres Strait Islander status was not reported.
- In 2011 the population rate of diagnosis of newly acquired hepatitis B infection for the non-Indigenous and Aboriginal and Torres Strait Islander populations were 1 and 3 per 100000, respectively.
- In 2011, 89% and 98% of diagnoses of newly acquired hepatitis B infections in the Aboriginal and Torres Strait Islander and non-Indigenous populations respectively, were in those aged 20 years and over.
- A total of 10261 cases of hepatitis C were diagnosed in Australia in 2011. Of these 652 (6%) occurred among the Aboriginal and Torres Strait Islander population, 3443 (34%) occurred among the non-Indigenous population and in a further 6166 (60%) cases Aboriginal and Torres Strait Islander status was not reported.
- Based on reported cases, hepatitis C transmission continued to occur in Australia predominantly among people with a history of injecting drug use.
- At the end of 2011, an estimated 226700 people were living with chronic hepatitis C infection including an estimated 49500 with moderate to severe liver disease.

In 2011, 15 cases of newly acquired hepatitis B infection were diagnosed in the Aboriginal and Torres Strait Islander population and 173 in the non-Indigenous population (Figure 27).

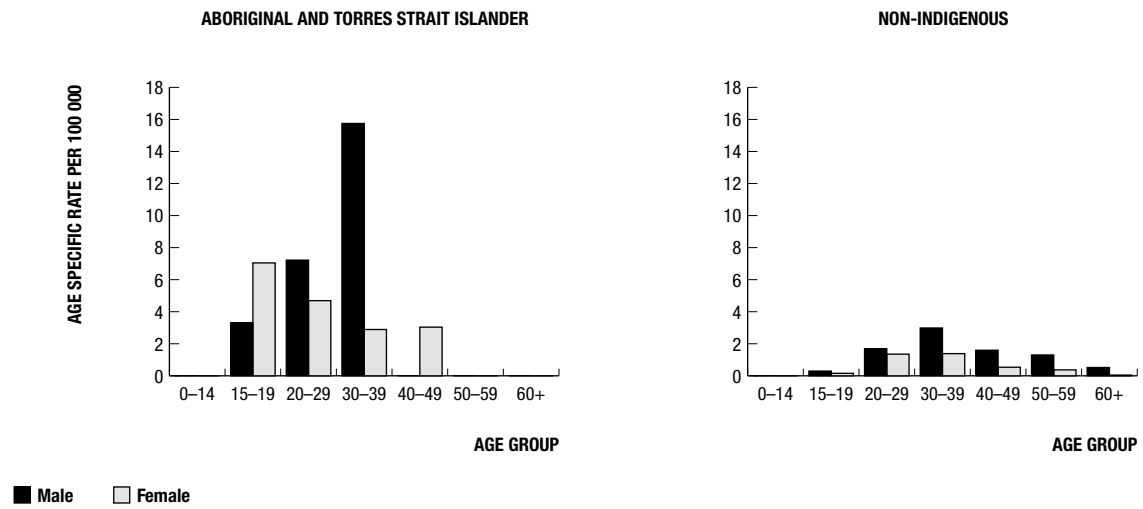
In 2011, the majority of diagnosis of newly acquired hepatitis B infection in both the Aboriginal and Torres Strait Islander (89%) and the non-Indigenous population (98%) occurred in people aged over 20 years. In 2011, the male to female ratio of diagnosis in the Aboriginal and Torres Strait islander population was 1.5:1 and 2.2:1 in the non-Indigenous population (Figure 27).

Figure 27 Number of newly acquired hepatitis B diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹, sex and age group



¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

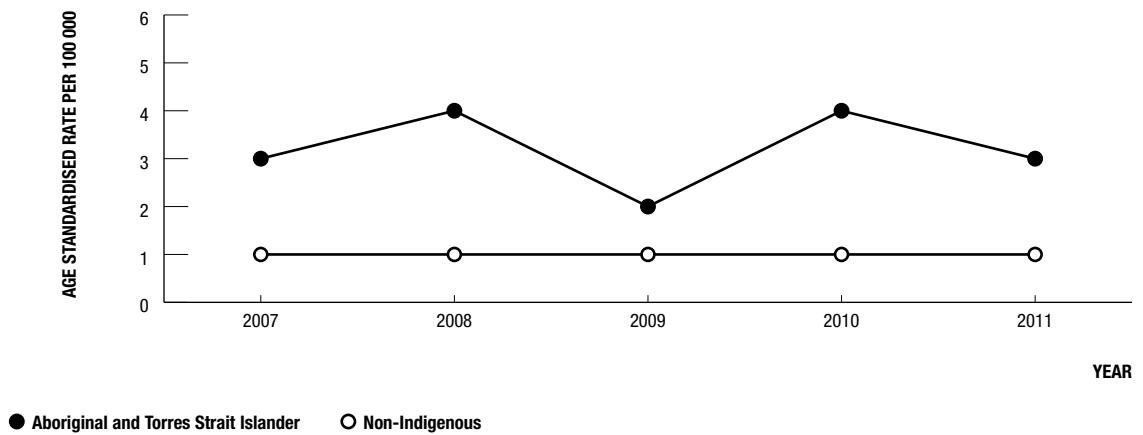
Figure 28 Age specific rate of newly acquired hepatitis B diagnoses in 2011 by Aboriginal and Torres Strait Islander status¹, sex and age group



¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In the period 2007 – 2011 the population rate of diagnosis for newly acquired hepatitis B for the Aboriginal and Torres Strait Islander population remained stable at around 3 per 100000 and remained stable at around 1 per 100000 in the non-Indigenous population over the same time period (Figure 29).

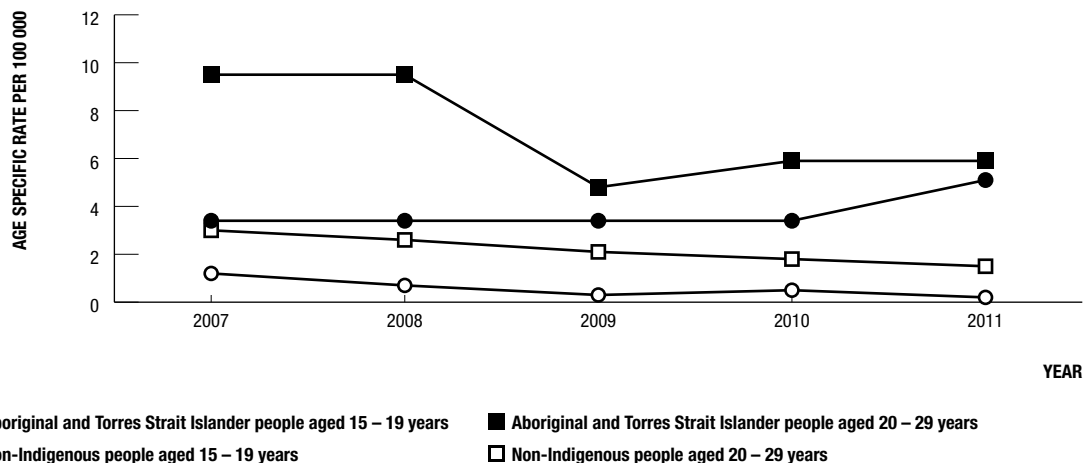
Figure 29 Age standardised rate of newly acquired hepatitis B diagnoses by Aboriginal and Torres Strait Islander status¹ and year



¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, the rate of diagnosis of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander male and female population aged 20 – 29 years was 4.3 and 3.5 times higher than the rates in non-Indigenous population, respectively (Figure 30).

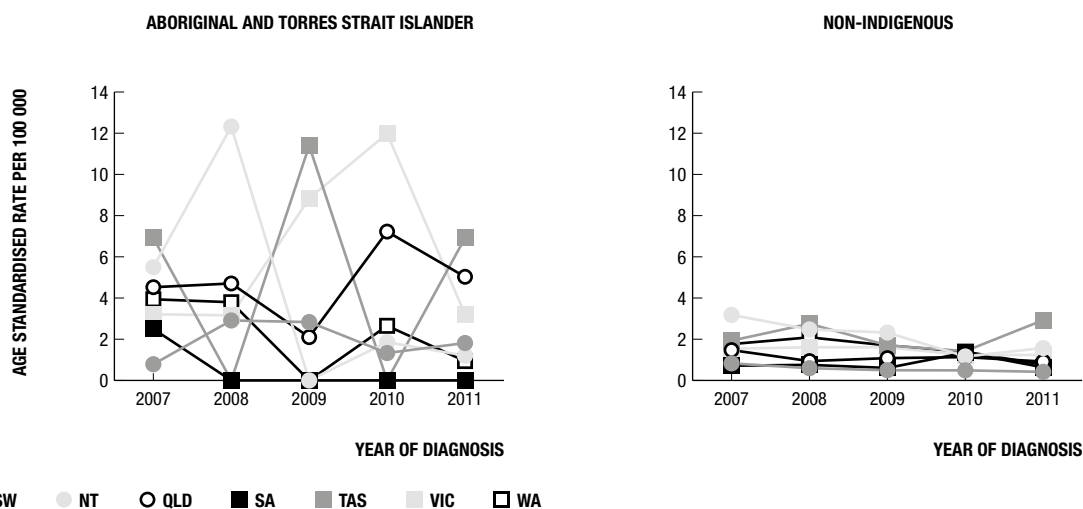
Figure 30 Age specific rate of newly acquired hepatitis B diagnoses in selected age groups by Aboriginal and Torres Strait Islander status¹ and year



¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, information on Aboriginal and Torres Strait Islander status was reported by all jurisdictions for more than 50% of diagnoses for newly acquired hepatitis B (Figure 31).

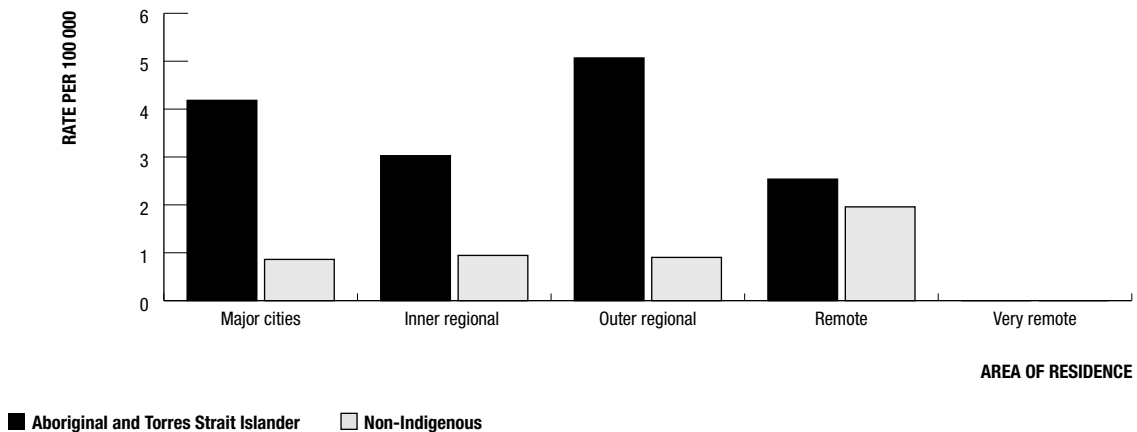
Figure 31 Age standardised rate of newly acquired hepatitis B diagnosis by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, the rate of diagnosis of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population was higher in major cities, inner regional, outer regional and remote areas with rates 4, 3, 5, 3 per 100000 in respectively, compared with a rate in the non-indigenous population of 1, 1, 1, 2 per 100000 respectively (Figure 32).

Figure 32 Rate of diagnosis of newly acquired hepatitis B infection in 2011, by Aboriginal and Torres Strait Islander status¹ and area of residence

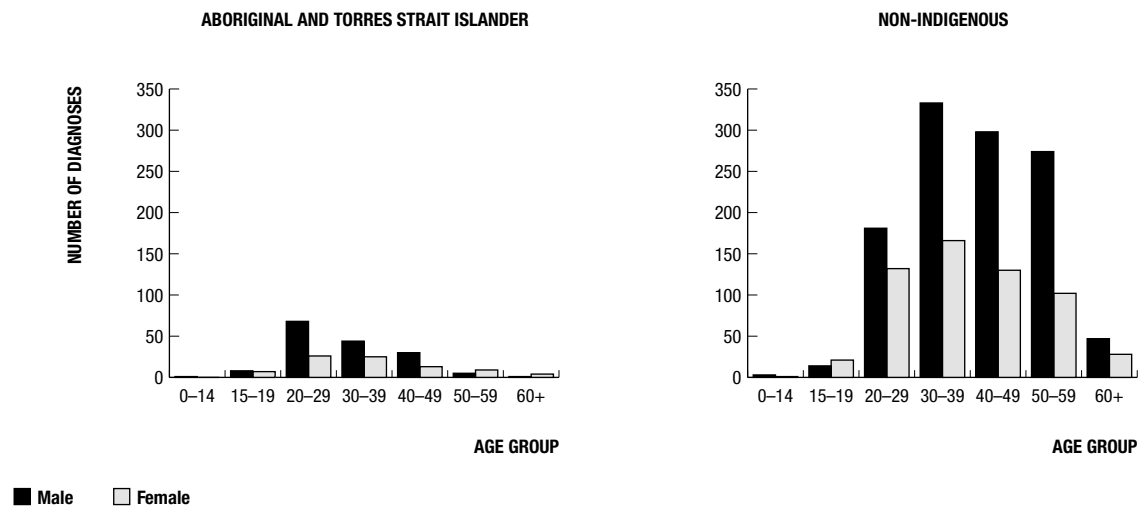


¹ Jurisdictions (NSW, NT, QLD, SA, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, there were 652 new diagnoses of hepatitis C infection made among the Aboriginal and Torres Strait Islander population, representing 6.4% of all cases reported (Figure 33).

Information on Aboriginal and Torres Strait Islander status was reported for more than 50% of new diagnoses of hepatitis C infection in 2010 in the Northern Territory, South Australia, Western Australia and Tasmania. In these jurisdictions the Aboriginal and Torres Strait Islander population comprised 21%, 8%, 14% and 5% respectively of all hepatitis C diagnoses in the respective jurisdiction.

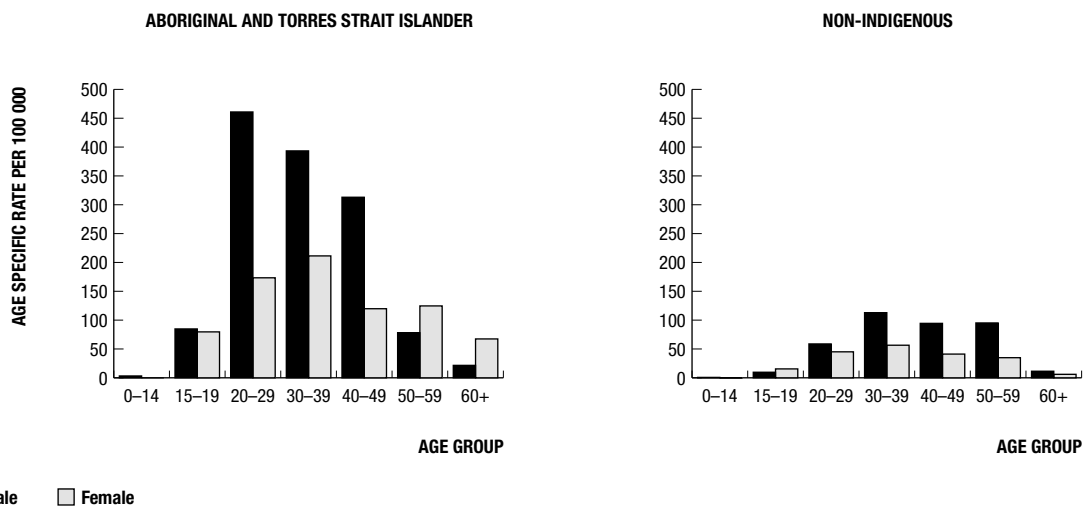
Figure 33 Number of hepatitis C antibody diagnoses in 2011, by Aboriginal and Torres Strait Islander status¹, sex and age group



¹ Jurisdictions (NT, SA, TAS and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, the rate of newly diagnosed hepatitis C infection in the 15 – 19 and 20 – 29 year age group among males and females in the Aboriginal and Torres Strait Islander population was 6.6 and 6.1 times higher than the rate in the same age groups in the non-Indigenous population (Figure 34).

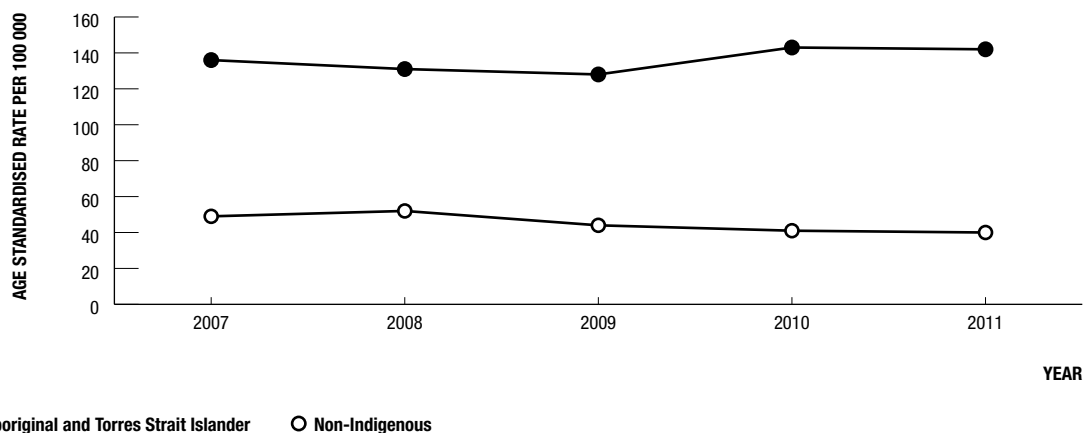
Figure 34 Age specific rate of newly diagnosed hepatitis C infection in 2011 by Aboriginal and Torres Strait Islander status¹, sex and age group



¹ Jurisdictions (NT, SA, TAS, and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

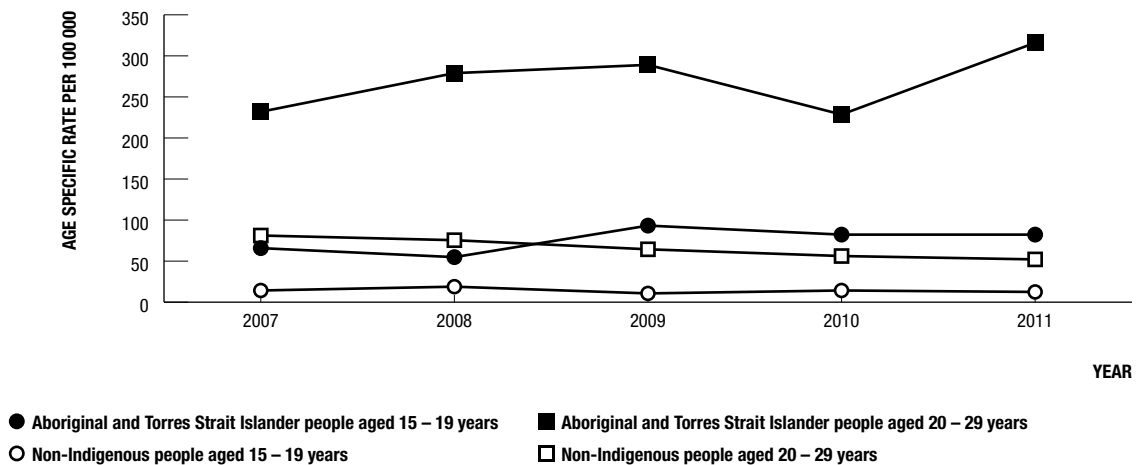
In the period 2007 – 2011, the rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population increased from 136 in 2007 to 142 in 2011 whereas the rate in the non-Indigenous population decreased from 49 per 100000 in 2007 to 40 per 100000 in 2011 (Figure 35).

Figure 35 Age standardised rate of newly diagnosed hepatitis C infection by Aboriginal and Torres Strait Islander status¹ and year



¹ Jurisdictions (NT, SA, TAS and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Figure 36 Age specific rate of newly diagnosed hepatitis C infection in selected age groups by Aboriginal and Torres Strait Islander status¹ and year

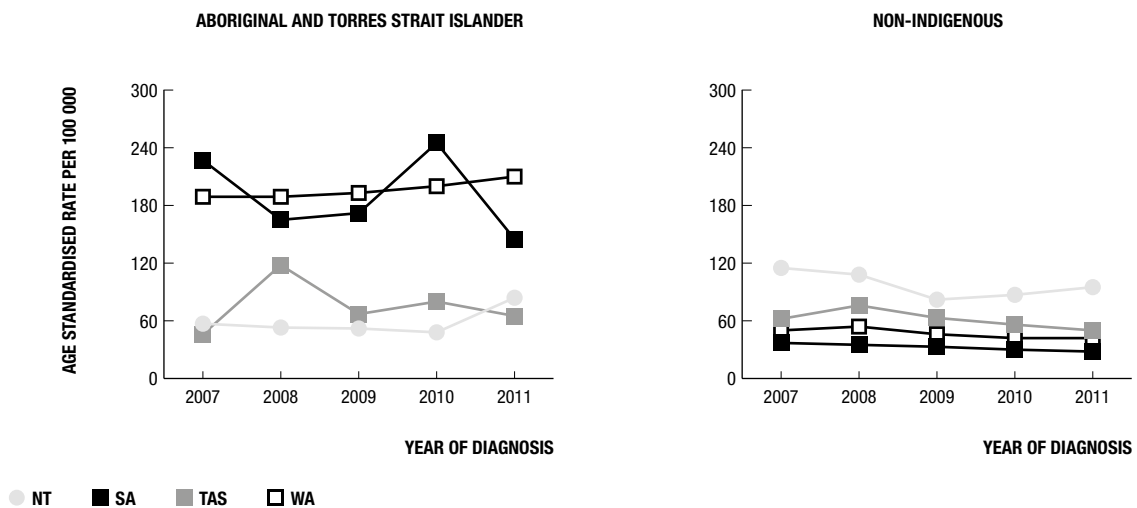


¹ Jurisdictions (NT, SA, TAS and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

The age specific rate of newly diagnosed hepatitis C infection increased among Aboriginal and Torres Strait Islander people aged 20 – 29 years in 2011 to above 300 per 100000 population, without an increase in the Aboriginal and Torres Strait Islander people aged 15 – 19 years or among non-Indigenous people (Figure 36).

In the Aboriginal and Torres Strait Islander population, the rate of hepatitis C diagnosis increased gradually in Western Australia, increased in the Northern Territory and declined substantially in South Australia in 2011 whereas rates of diagnosis in the non-Indigenous population declined over time.

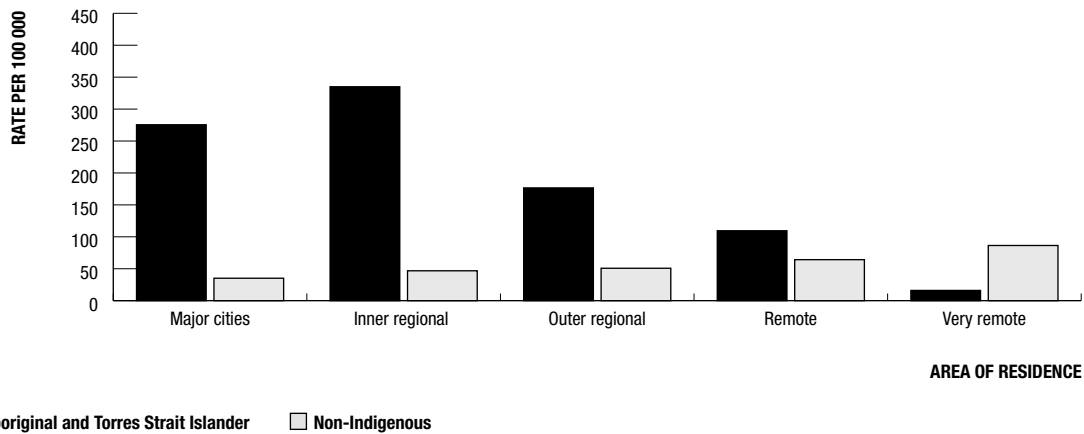
Figure 37 Age standardised rate of newly diagnosed hepatitis C infection by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



¹ Jurisdictions (NT, SA, TAS and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

In 2011, the rate of newly diagnosed hepatitis C infection reported in South Australia, Western Australia and Northern Territory and Tasmania among the Aboriginal and Torres Strait Islander population in major cities, inner regional and outer regional areas was 7.8, 7.2 and 3.5 times higher than the rate of diagnosis of the non-Indigenous population resident in the same areas. Rates of newly diagnosed hepatitis C infection were lower among the Aboriginal and Torres Strait Islander population resident in remote and very remote areas than the non-Indigenous population (Figure 38).

Figure 38 Rate of newly diagnosed hepatitis C infection in 2011, by Aboriginal and Torres Strait Islander status¹ and area of residence



¹ Jurisdictions (NT, SA, TAS and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

2011 Australian Needle and Syringe Program Survey

Data routinely collected from the Australian Needle and Syringe Program Survey provides an insight into the demographics, risk behaviour, and blood-borne virus prevalence among people who inject drugs who attend needle and syringe programs. In the period 2007 – 2011, 11% of all clients participating in the annual survey identified as Aboriginal and or Torres Strait Islander. Hepatitis C antibody prevalence was consistently higher among Aboriginal and Torres Strait Islander survey respondents compared to non-Indigenous participants for all years, except for 2010 where the rate of hepatitis C antibody prevalence was 47% among Aboriginal and Torres Strait Islander participants compared with 54% of non-Indigenous participants. In 2011, HIV prevalence remained low, at less than 2% in both the Aboriginal and Torres Strait Islander population and in the non-Indigenous population.

Methodological notes

National surveillance for sexually transmissible infections

Notification of specific sexually transmissible infections to the National Notifiable Diseases Surveillance System

Diagnoses of specific sexually transmissible infections were notified by State/Territory health authorities to the National Notifiable Disease Surveillance System, maintained by the Australian Government Department of Health and Ageing. Chlamydia was notifiable in all health jurisdictions except New South Wales prior to 1998; chlamydia was made notifiable in New South Wales in 1998. Gonorrhoea was a notifiable condition in all health jurisdictions and infectious syphilis became notifiable in all jurisdictions in 2004. In most health jurisdictions, diagnoses of sexually transmissible infections were notified by the diagnosing laboratory, the medical practitioner, hospital or a combination of these sources (see Table below).

Table Source of notification of specific sexually transmissible infections to the National Notifiable Diseases Surveillance System by State/Territory

Diagnosis	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Gonorrhoea	Doctor Laboratory Hospital	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor
Infectious syphilis	Doctor Laboratory Hospital	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Doctor
Chlamydia	Doctor Laboratory Hospital	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Laboratory	Doctor Laboratory	Doctor
Donovanosis	Not notifiable	Laboratory	Doctor Laboratory	Doctor Laboratory Hospital	Doctor Laboratory	Laboratory	Doctor Laboratory	Doctor Laboratory

National surveillance for sexually transmissible infections among the Aboriginal and Torres Strait Islander population

Information on Aboriginal and Torres Strait Islander status in diagnosed cases of chlamydia, gonorrhoea and infectious syphilis was sought through doctor notification in the Australian Capital Territory, the Northern Territory, Queensland, South Australia, Victoria and Western Australia. New South Wales and Tasmania were the only health authorities that sought information on Aboriginal and Torres Strait Islander status through laboratory notification.

Population rates of diagnosis of specific sexually transmissible infections were calculated by year and State/Territory of diagnosis using *Experimental estimates of Aboriginal and Torres Strait Islander Australians June 2006* (ABS 2008), available through the Australian Bureau of Statistics.

Rate of diagnosis of sexual transmissible infections by area of residence

The rate of diagnosis of sexually transmissible infections in Australia in 2011 by area of residence and Aboriginal and Torres Strait Islander status was calculated using the 2006 census population distribution, based on the Australian Standard Geographical Classification (ASGC) (ABS 2003; ABS 2004). The ASGC uses Aria+ methodology, which assigns each locality to one of five remoteness classifications based on its distance by road to different categories of service centre. The service centres are categorised according to population size. Hobart and Darwin are not category A service centres (service centres with a population size of 250000 or above) and therefore are classed as “Inner Regional” and “Outer Regional” areas, respectively, based on their distance to the nearest category A service centre. The five remoteness classifications are: Major cities, Inner Regional, Outer Regional, Remote and Very Remote.

National surveillance for newly diagnosed HIV infection

National HIV Registry

Newly diagnosed HIV infection is a notifiable condition in each health jurisdiction in Australia. Cases of newly diagnosed HIV infection were notified through State/Territory health authorities to the national HIV surveillance centre on the first occasion of diagnosis in Australia. Information sought at notification of HIV infection included State/Territory of diagnosis, name code (based on the first two letters of the family name and the first two letters of the given name), sex, date of birth, Aboriginal and Torres Strait Islander status, date of HIV diagnosis, CD4+ cell count at diagnosis, source of exposure to HIV and evidence of newly acquired HIV infection. Information on country of birth has been reported by all health jurisdictions for cases of HIV infection newly diagnosed in Australia from 1 January 2002. Information on language spoken at home has been reported by health jurisdictions in New South Wales, Victoria and Queensland for cases of HIV infection newly diagnosed from 1 January 2004 and by all jurisdictions from 2008. Reporting of a previous HIV diagnosis overseas was introduced for cases of HIV infection newly diagnosed in Australia from 1 January 2007 (Table 1.1.3). Late HIV diagnosis was defined as newly diagnosed HIV infection with a CD4+ cell count of less than 350 cells/ μ l and Advanced HIV diagnosis was defined as newly diagnosed HIV infection with a CD4+ cell count of less than 200 cell/ μ l

In New South Wales, information on cases of newly diagnosed HIV infection was sought only from the diagnosing doctor prior to 2008. From 2008, information was also sought from the doctors to whom the person with HIV infection was referred, and follow up was carried out for cases for which the information sought at HIV notification was incomplete. These new procedures resulted in more complete information on new HIV diagnoses and reassignment of cases found to have been newly diagnosed in earlier years.

The surveillance systems for newly diagnosed HIV infection are described in Guy *et al* (2007) and McDonald *et al* (1994b). The National Serology Reference Laboratory, Australia (Dax and Vandenbelt 1993), carried out monitoring of HIV antibody testing.

National surveillance for newly diagnosed HIV infection among the Aboriginal and Torres Strait Islander population

Information on Aboriginal and Torres Strait Islander status was routinely sought at diagnosis of HIV infection in the Northern Territory, Queensland, South Australia, Tasmania and Western Australia from 1985. Information on Aboriginal and Torres Strait Islander status was available for cases of HIV infection newly diagnosed in New South Wales from January 1992, from June 1998 in Victoria and from January 2005 in the Australian Capital Territory. Nationally, information on Aboriginal and Torres Strait Islander status at diagnosis of HIV infection was sought prospectively from May 1995. For HIV diagnoses prior to 1995, Aboriginal and Torres Strait Islander status was obtained retrospectively through health authorities. In 2000 – 2009, Aboriginal and Torres Strait Islander status was reported at HIV diagnosis by State/Territory health authorities other than the Australian Capital Territory prior to January 2005 and Victoria prior to June 1998 in 98% of Australian born cases. Further information is available in Guthrie *et al* (2000).

Population rates of newly diagnosed HIV infection by Aboriginal and Torres Strait Islander status were calculated using *Experimental estimates of Aboriginal and Torres Strait Islander Australians June 2006* (ABS 2008). The area of residence by Aboriginal and Torres Strait Islander status was calculated using the 2006 census population distribution, based on the Australian Standard Geographical Classification. The rate of HIV diagnosis in the non-Indigenous population was calculated using cases other than those whose exposure to HIV occurred in a high HIV prevalence country and the Australian population other than populations from high HIV prevalence countries in sub-Saharan Africa and South East Asia.

Global comparisons

The data in Figure 26 were obtained from the following sources:

- Centers for Disease Control and Prevention. *HIV Surveillance Report 2008; 20*. Centers for Disease Control and Prevention, Atlanta, Georgia. 2010
- Health Protection Agency. *HIV in the United Kingdom: 2011*: London: Health Protection Agency, Centre for Infections. November 2011
- Joint United Nations Programme on HIV/AIDS (UNAIDS). *2008 Report on the global HIV/AIDS epidemic*. UNAIDS, 2008. <http://www.unaids.org>
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- National Center for HIV/AIDS Dermatology and STDs (NCHADS). *Consensus Workshop on HIV Estimation for Cambodia*. NCHADS, 2007. <http://www.nchads.org/>
- Public Health Agency of Canada. *Summary: Estimates of HIV prevalence and incidence in Canada, 2008*. Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada 2009

National surveillance for viral hepatitis

Notification of viral hepatitis to the National Notifiable Diseases Surveillance System

New diagnoses of hepatitis B, newly acquired hepatitis B and prevalent cases of hepatitis C infection were notifiable conditions in all health jurisdictions in Australia. Cases were notified by the diagnosing laboratory, medical practitioner, hospital or a combination of these sources, through State/Territory health authorities, to the National Notifiable Diseases Surveillance System. Population rates of diagnosis of viral hepatitis were calculated for each jurisdiction using yearly population estimates, provided by the Australian Bureau of Statistics.

Hepatitis B infection and hepatitis C infection was classified as newly acquired if evidence was available of acquisition in the 24 months prior to diagnosis (Communicable Diseases Network Australia 2004). Diagnoses of newly acquired hepatitis B infection was notifiable in all health jurisdictions. Diagnoses of newly acquired hepatitis C infection were recorded in all health jurisdictions other than Queensland.

National surveillance for viral hepatitis among the Aboriginal and Torres Strait Islander population

Information was sought on Aboriginal and Torres Strait Islander status for diagnoses of prevalent and newly acquired hepatitis B, and prevalent and newly acquired hepatitis C cases notified to the National Notifiable Diseases Surveillance System. Population rates of diagnoses of viral hepatitis were calculated by year and State/Territory of diagnosis (in those jurisdictions for which Aboriginal and Torres Strait Islander status was reported in more than 50% of diagnoses in each year 2005 – 2009) using *Experimental estimates of Aboriginal and Torres Strait Islander Australians June 2006* (ABS 2008).

HIV and hepatitis C seroprevalence among people who inject drugs

All clients attending needle and syringe program (NSP) sites during one week in, 2007 (53 sites), 2008 (52 sites), 2009 (51 sites), 2010 (53 sites) and 2011 (53 sites) were asked to complete a brief, self-administered questionnaire and to provide a finger prick blood spot sample for HIV and hepatitis C antibody testing. NSP sites were selected on the basis of large numbers of clients and representation from all health jurisdictions. Further information is available in MacDonald *et al* (1997 and 2000).

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- Australian Government Department of Health and Ageing. National Hepatitis B Strategy, 2010 – 2013. Commonwealth of Australia, Canberra 2010
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- Australian Government Department of Health and Ageing. Second National Sexually Transmissible Infections Strategy 2010 – 2013. Commonwealth of Australia, Canberra 2010
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Chlamydia

◆ Aboriginal & Torres Strait Islander Men ◆ Aboriginal & Torres Strait Islander Women



HIV

● Aboriginal & Torres Strait Islander People ● Non-indigenous Islander People



HIV ■ Males ■ Females

Aboriginal & Torres Strait Islander People who inject drugs ▲ HIV ▲ HCV

1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011