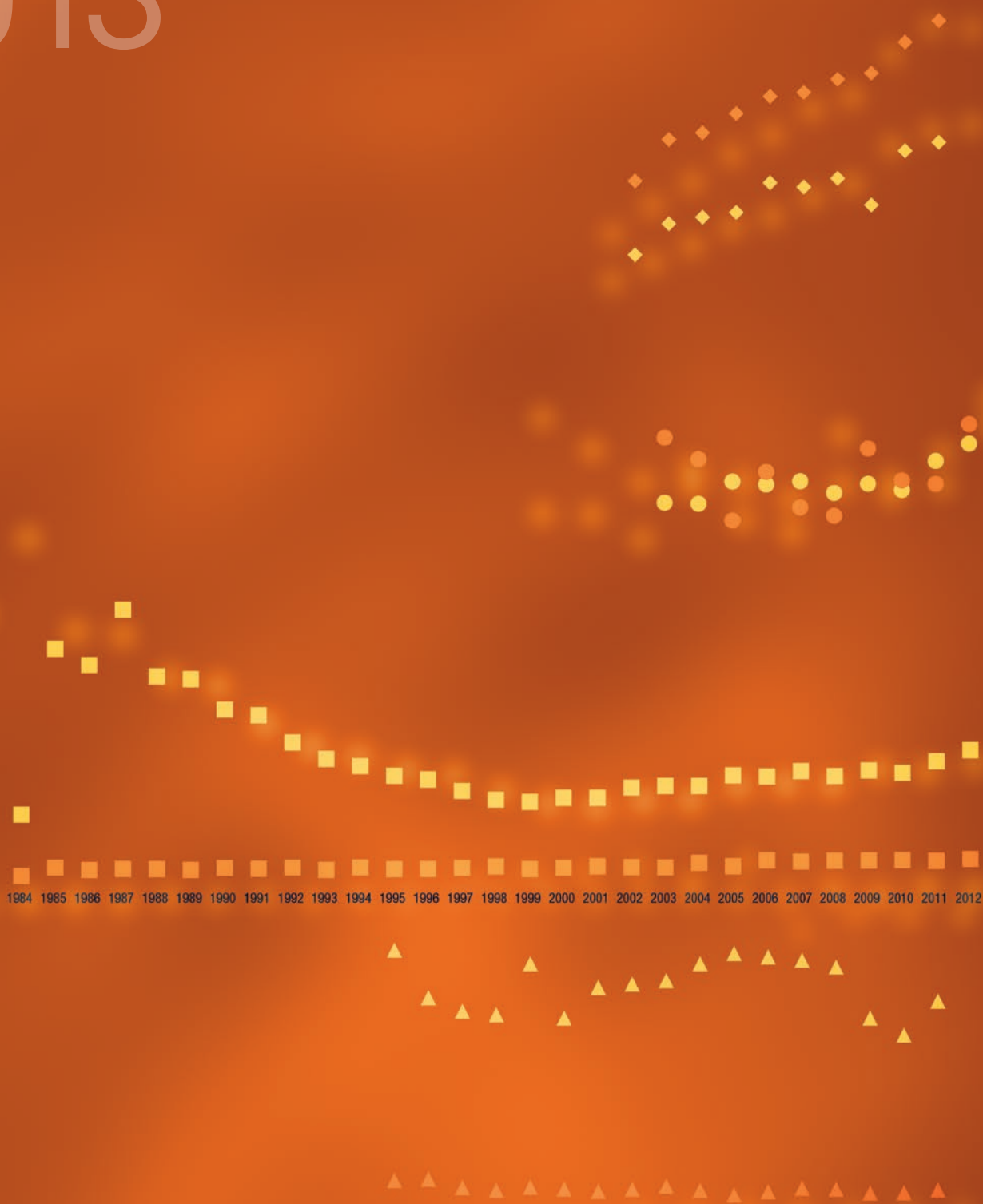


Bloodborne viral and sexually transmitted infections
in Aboriginal and Torres Strait Islander people:

Annual Surveillance Report

2013



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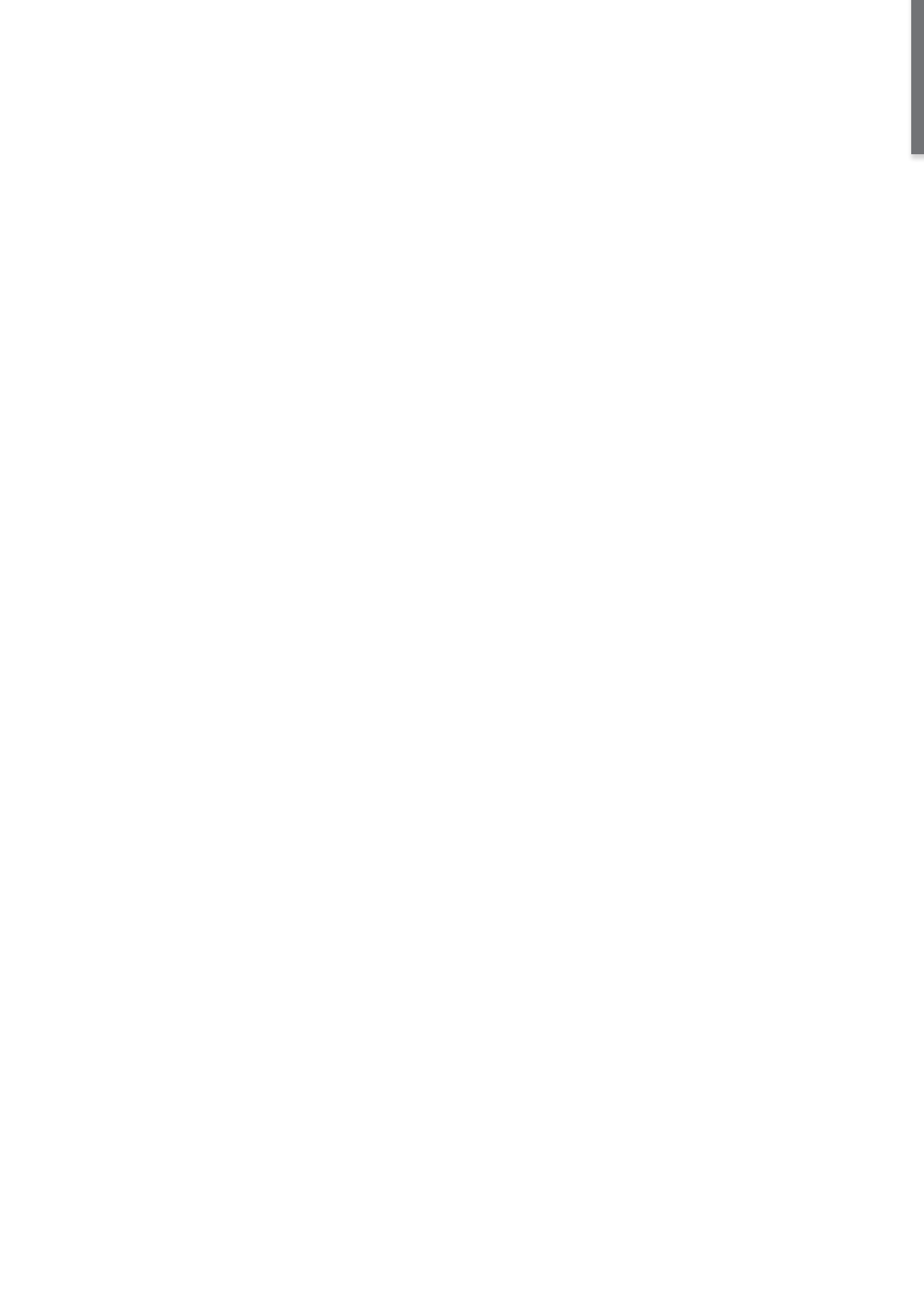
in collaboration with Australian networks in surveillance for HIV, viral hepatitis and sexually transmissible infections

This report was overseen by the Australian Government's Ministerial Advisory Committee on Blood Borne Viruses and Sexually Transmissible Infections and the National Aboriginal Community Controlled Health Organisation (NACCHO) Sexual Health and Blood Borne Virus Advisory Committee

The Kirby Institute is affiliated with the Faculty of Medicine, The University of New South Wales. It is funded by the Australian Government Department of Health and Ageing to conduct national surveillance and epidemiological analyses to support the implementation of the five National Strategies related to HIV, hepatitis B, hepatitis C, sexually transmissible infections, and the response to these infections in the Aboriginal and Torres Strait Islander population. The Kirby Institute is a research associate of the Australian Institute of Health and Welfare.

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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 2013 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 2012, as reported by 31 March 2013. 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 on page 3 onwards, is gratefully acknowledged.

Acknowledgments

National organisations

- Association for Prevention and Harm Reduction Programs, VIC
- Australasian Society for HIV Medicine, Sydney, NSW
- Australia and New Zealand Liver Transplant Registry, Sydney, NSW
- Australian Federation of AIDS Organisations, Sydney, NSW
- Australian Government Department of Health and Ageing, Canberra, ACT
- Australian Injecting and Illicit Drug Users' League
- Australian Institute of Health and Welfare, Canberra, ACT
- Australian Paediatric Surveillance Unit and its contributors, Westmead, NSW
- Australian Red Cross Blood Service, Melbourne, VIC
- Centre for Social Research in Health, The University of New South Wales, NSW
- Communicable Diseases Network Australia, Canberra, ACT
- Hepatitis Australia, Canberra, ACT
- National Aboriginal Community Controlled Health Organisation, ACT
- National Association of People Living with HIV/AIDS, Sydney, NSW
- National Drug and Alcohol Research Centre, The University of New South Wales, Sydney, NSW
- National Serology Reference Laboratory, Australia, Fitzroy, VIC

State/Territory health departments

- Communicable Disease Control, Health Directorate, ACT Government, Canberra, ACT
- Centre for Health Protection, NSW Ministry of Health, North Sydney, NSW
- Sexual Health and Blood Borne Virus Unit, CDC, Department of Health and Families, Darwin, NT
- Queensland Health, Brisbane, QLD
- STI and BBV Section, Communicable Disease Control Branch, SA Health, Adelaide, SA
- Department of Health and Human Services, Hobart, TAS
- Communicable Disease Epidemiology and Surveillance, Health Protection Branch, Victorian Government Department of Health, Melbourne, VIC; The Macfarlane Burnet Institute for Medical Research and Public Health Limited, Prahran; Hepatitis B Program, Epidemiology Unit, Victorian Infectious Diseases Reference Laboratory, VIC
- Communicable Diseases Control Branch, Department of Health, Perth, WA

Australian Gonococcal Surveillance Programme

Reference Laboratories:

- Microbiology Department, Canberra Hospital, Woden, ACT
- Department of Microbiology, The Prince of Wales Hospital, Randwick, NSW
- Microbiology Laboratory, Royal Darwin Hospital, Casuarina, NT
- Queensland Health Scientific Services, Coopers Plains, QLD
- SA Pathology at Women's and Children's Hospital, North Adelaide, SA
- Department of Microbiology and Infectious Diseases, Royal Hobart Hospital, Hobart, TAS
- The Microbiological Diagnostic Unit (PHL), Department of Microbiology and Immunology, University of Melbourne, Parkville, VIC
- Department of Microbiology and Infectious Diseases, PathWest Laboratory Medicine, Royal Perth Hospital, Perth, WA

Collaborative group on sentinel surveillance in sexual health clinics

- Sydney Sexual Health Centre, Sydney Hospital, Sydney, NSW
- Royal Prince Alfred Hospital Sexual Health Clinic, Camperdown, NSW
- Brisbane Sexual Health Clinic, Brisbane, QLD
- Gold Coast Sexual Health Clinic, Miami, QLD
- Clinic 275, Adelaide, SA
- Melbourne Sexual Health Centre, Melbourne, VIC

Genital Warts Surveillance Network

Contributing organisations

- Northern Sydney Sexual Health Service, St Leonards; Royal Prince Alfred Hospital Sexual Health Clinic, NSW
- NT Sexual Health and BBV Unit, NT
- Cairns Sexual Health Services, Cairns Base Hospital, Cairns; Gold Coast Sexual Health Clinic, Miami, QLD
- Hobart, Devonport and Launceston Sexual Health Service, TAS
- Melbourne Sexual Health Centre, Carlton, VIC
- Fremantle Hospital, Fremantle, WA

Australian HIV Observational Database

- Tamworth Sexual Health Service, Tamworth; Blue Mountains Sexual Health Clinic, Katoomba; Holdsworth House Medical Practice, Darlinghurst; Illawarra Sexual Health, Wollongong; Royal Prince Alfred Hospital Sexual Health Clinic, Camperdown; Macquarie Sexual Health Centre, Dubbo; Nepean Sexual Health and HIV Clinic, Penrith; Holden Street Clinic, Gosford; Lismore Sexual Health & AIDS Services, Lismore; St Vincent's Hospital, Darlinghurst; Sydney Sexual Health Centre, Sydney, Dr Ellis General Medical Practice, Coffs Harbour; Taylor Square Private Clinic, Darlinghurst; East Sydney Doctors, Surry Hills; Parramatta Sexual Health Clinic, Parramatta; Albion Street Centre, Sydney; Clinic 16, St Leonards, NSW
- Communicable Disease Centre, Royal Darwin Hospital, Darwin, NT
- AIDS Medical Unit, North Quay; Clinic 87, Sunshine Coast & Cooloola HIV Sexual Health Service, Nambour; Gladstone Road Medical Centre, Highgate Hill; Gold Coast Sexual Health Clinic, Miami; Cairns Sexual Health Services, Cairns Base Hospital, Cairns, QLD
- The Care and Prevention Program, Adelaide University, Adelaide, SA
- The Alfred Hospital, Prahran; Melbourne Sexual Health Centre, Carlton; Monash Medical Centre, Clayton; Prahran Market Clinic, South Yarra; The Centre Clinic, St Kilda; The Carlton Clinic, Carlton; Northside Clinic, Fitzroy North, VIC
- Department of Clinical Immunology, Royal Perth Hospital, Perth, WA

Collaboration of Australian Needle and Syringe Programs

- Directions ACT; Canberra.
- ACON Hunter; Central Coast NSP Services, Gosford, Long Jetty and Woy Woy; First Step Program, Port Kembla and Nowra; Health ConneXions, Liverpool; Hunter Harm Reduction Services, Newcastle; Kirketon Road Centre and Clinic 180, Kings Cross; Mid North Coast Harm Reduction, Coffs Harbour; Murrumbidgee Harm Reduction, Albury and Wagga Wagga; NSW Users and AIDS Association (NUAA), Surry Hills; Northern NSW Harm Reduction, Ballina, Byron Bay, Grafton, Lismore, Murwillumbah, Nimbin, and Tweed Heads; Resource and Education Program for IDUs, Redfern; Central Access Service, Kogarah and Sutherland; South Court Primary Care NSP, Nepean; Western Sydney HIV/Hepatitis C Prevention Service, Blacktown, Mt Druiitt and Parramatta.
- Northern Territory AIDS and Hepatitis C Council, Alice Springs, Darwin and Palmerston, NT.
- Biala Community Alcohol and Drug Services, Brisbane; Cairns ATODS NSP, Cairns; Queensland Injectors Health Network (QulHN), Brisbane, Gold Coast and Sunshine Coast; Kobi House, Toowoomba; West Moreton Sexual Health Service, Ipswich; Townsville ATODS NSP.
- 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.
- Anglicare NSP Service, Hobart and Glenorchy; Clarence Community Health Centre, Clarence; Devonport Community Health Centre, Devonport; Salvation Army Launceston, Launceston.
- Barwon Health Drug and Alcohol Services, Geelong; Health Information Exchange, St Kilda; Health Works, Footscray; Inner Space, Collingwood; North Richmond NSP, North Richmond; Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Melbourne.
- WA AIDS Council Mobile Exchange, Perth; Western Australia Substance Users Association (WASUA), Perth and South Coast.
- St Vincent's Centre for Applied Medical Research (AMR) and NSW State Reference Laboratory for HIV at St Vincent's Hospital, Sydney, NSW.

Annual Surveillance Report 2013 Advisory Committee

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- Dr Benjamin Cowie, Australasian Society for HIV Medicine, NSW
- Ann Roberts, Australasian Society for HIV Medicine, NSW
- Simon Donohoe, Australian Federation of AIDS Organisations, Sydney, NSW
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- Helen Tyrrell, Hepatitis Australia, Canberra, ACT
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- Associate Professor David Wilson (Chair), Professor Basil Donovan, Professor Lisa Maher, Associate Professor Rebecca Guy, Dr Iryna Zablotska-Manos, Ann McDonald, Melanie Middleton, Andrew Nakhla, Kirby Institute

National Aboriginal Community Controlled Health Organisation Sexual Health and Blood Borne Virus Advisory Committee 2013

- 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, NT; 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.

Medical and epidemiological 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. The infection is asymptomatic in about 80% of women, and 50% of men. 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 100 000 cases in the specified age group.

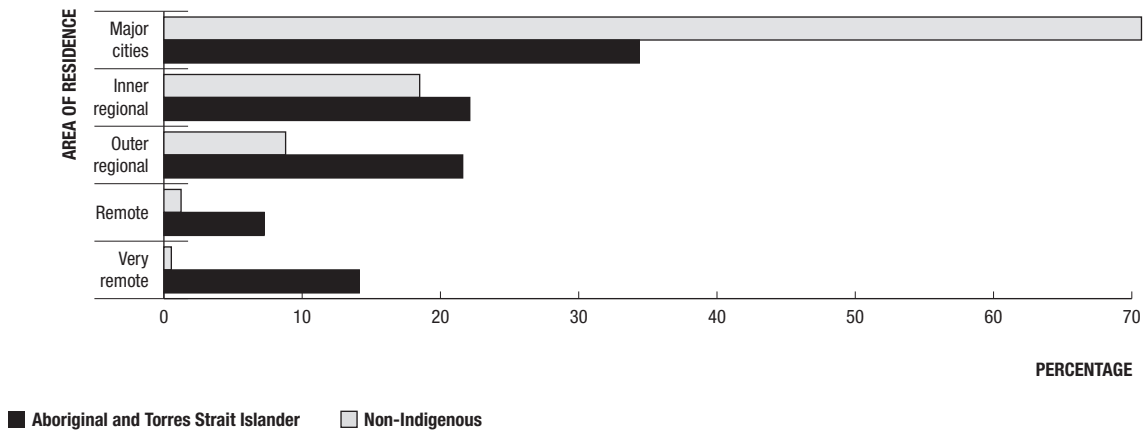
Example: Age-specific notification rate of diagnosis of gonorrhoea among males aged 20 – 29 years

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

Age standardised rate of infection: The proportion of notifications 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 2012, the highest proportion of the Aboriginal and Torres Strait Islander population (34.4%) lived in major cities (Figure 1), with 42.9% living in outer regional, remote and very remote areas combined, compared with 10.5% of the non-Indigenous population (Figure 1) (See *Methodological Notes* for further information).

Figure 1 Area of residence, 2012, 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 2013* 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% (41 153) of chlamydia diagnoses, 35% (4815) of gonorrhoea diagnoses and 59% (5939) of hepatitis C diagnoses in 2012 (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 notification of selected sexually transmissible infections, by State/Territory, 2012

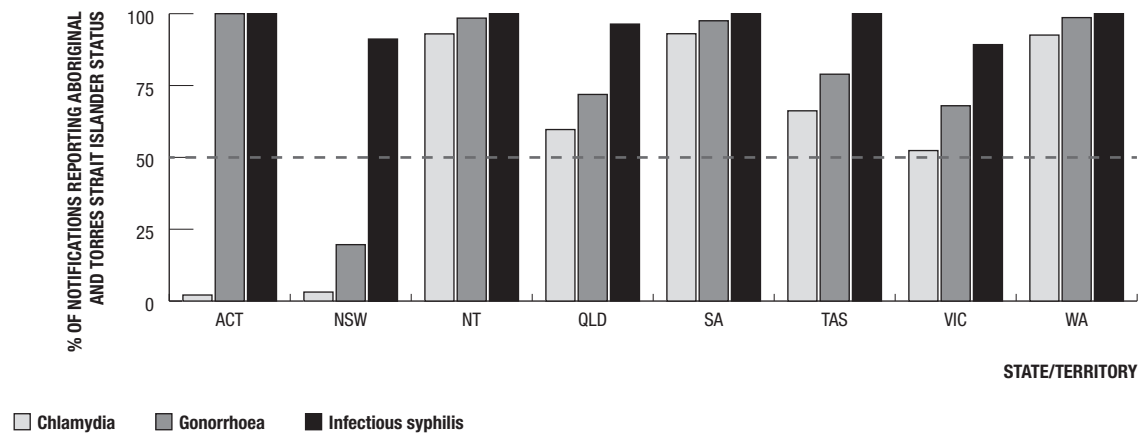
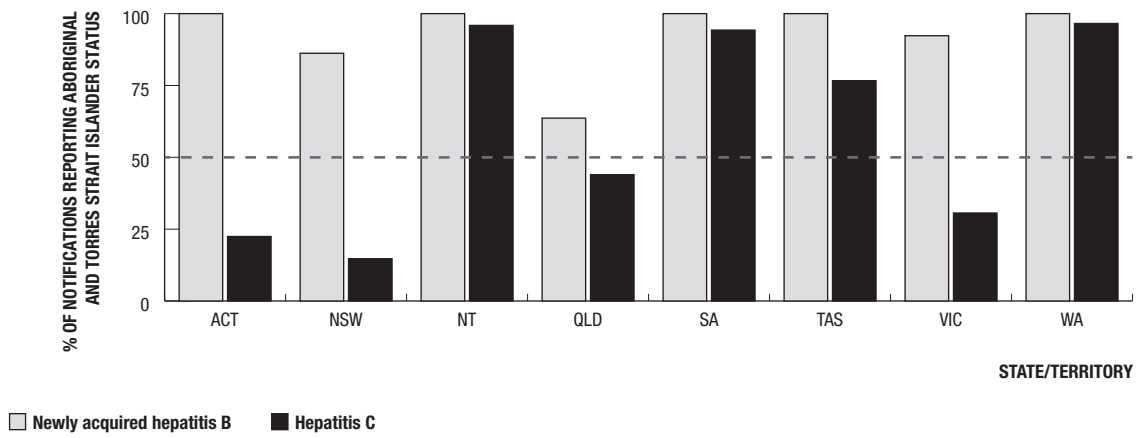


Figure 3 Reporting of Aboriginal and Torres Strait Islander status at notification of viral hepatitis diagnoses, by State/Territory, 2012



Summary

- The Aboriginal and Torres Strait Islander population continues to be overrepresented in notifications of sexually transmissible infections and viral hepatitis (Table 2).
- Chlamydia and gonorrhoea notifications 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 in 2011 and only one in 2012.
- Infectious syphilis notifications decreased slightly in the Aboriginal and Torres Strait Islander population in 2012, particularly in 15 – 19 year olds. However, the trends vary across jurisdictions with a substantial decline in Northern Territory and a plateau in Queensland.
- Outer regional, remote and very remote Aboriginal and Torres Strait Islander communities continue to experience substantially higher rates of chlamydia, gonorrhoea and infectious syphilis notifications compared with inner regional and major cities in Australia.
- New HIV diagnoses continue to be notified in the Aboriginal and Torres Strait Islander population at a similar rate to that in the non-Indigenous population. A higher proportion of HIV diagnoses in the past five years in the Aboriginal and/or Torres Strait Islander population are due to injecting drug use (13%) than the non-Indigenous population (2%).
- Notifications of newly diagnosed hepatitis C infection and newly acquired B infection are reported at disproportionately high rates among the Aboriginal and Torres Strait Islander population.

Sexually transmissible infections

- Chlamydia continued to be the most frequently reported notifiable disease in Australia with 82 707 notifications in 2012. Of these, 6 792 (8%) were among the Aboriginal and Torres Strait Islander population, 34 762 (42%) were among the non-Indigenous population and for 41 153 (50%) notifications, Indigenous status was not reported.
- The chlamydia notification rate in the Aboriginal and Torres Strait Islander population in 2012 of 1 379 per 100 000 was 4 times higher than the rate in the non-Indigenous population of 385 per 100 000.
- More than 80% of chlamydia notifications in 2012 in both populations occurred in the 15 – 19 and 20 – 29 year age groups.
- Male to female ratios of chlamydia notifications for the Aboriginal and Torres Strait Islander population and the non-Indigenous population were 0.5:1 and 0.7:1, respectively.
- Chlamydia notifications reported from remote and very remote areas accounted for 55% of all notifications in the Aboriginal and Torres Strait Islander population.
- Of 13 649 notifications of gonorrhoea in 2012, 3 904 (28%) were among the Aboriginal and Torres Strait Islander population, 4 930 (36%) were among the non-Indigenous population and for 4 815 (35%) notifications Indigenous status was not reported.
- The rate of gonorrhoea notifications in the Aboriginal and Torres Strait Islander population in 2012 was 829 per 100 000, 21 times higher than the rate of 40 per 100 000 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 3.5:1, respectively.
- There were no donovanosis notifications in Australia in 2011 and only one in 2012, demonstrating the success of efforts to eliminate this disease from Australian populations.
- Nationally, there were 1 534 notifications of infectious syphilis in 2012; 167 (10%) among the Aboriginal and Torres Strait Islander population, 1 257 (81%) among the non-Indigenous population and Indigenous status was not reported for 110 (7%) notifications.
- The notification rate of infectious syphilis in the Aboriginal and Torres Strait Islander population in 2012 was 27 per 100 000, close to 5 times higher than the rate of 6 per 100 000 in the non-Indigenous population.

- After an increase in the notification rate of infectious syphilis in the Aboriginal and Torres Strait Islander population in 2010 – 2011, attributed to an outbreak of syphilis in some Queensland remote communities, in 2012 the notification rate of infectious syphilis declined slightly. However, the trends vary across jurisdictions with a substantial decline in the Northern Territory and a plateau in notifications in the Aboriginal and Torres Strait Islander population in Queensland.
- In 2010 – 2012 a large trial was underway in 66 remote communities in the Northern Territory, Western Australian and Far North Queensland focused on increasing testing for sexually transmissible infections, which may have contributed to increased notifications in this period. Conversely, in the Northern Territory there was under-reporting of chlamydia and gonorrhoea notifications in 2012 by one laboratory.

HIV infection

- There were a total of 1 253 notifications of newly diagnosed HIV infection in 2012; 32 diagnoses were among the Aboriginal and Torres Strait Islander population.
- In the ten years from 2003 to 2012, there were 225 notifications of newly diagnosed HIV infection in the Aboriginal and Torres Strait Islander population.
- In 2012, the notification rate of newly diagnosed HIV infection in the Aboriginal and Torres Strait Islander population (5.5 per 100 000) was similar to that in the non-Indigenous population (excluding cases from a high HIV prevalence country of exposure and populations from a high prevalence country of birth) (5.1 per 100 000).
- Among notifications of newly diagnosed HIV infection in 2008 – 2012, the most frequently reported route of HIV transmission was sexual contact between males in both the Aboriginal and Torres Strait Islander (56%) and non-Indigenous population (72%). A higher proportion of notifications from the Aboriginal and Torres Strait Islander populations was attributed to injecting drug use (13% vs. 2%) and a similar proportion to heterosexual contact (18% vs 17%) compared with the non-Indigenous population (excluding cases from a high HIV prevalence country of exposure).

Viral hepatitis

- A total of 193 cases of newly acquired hepatitis B infection were notified in Australia in 2012; of these, 19 (10%) were among the Aboriginal and Torres Strait Islander population, 146 (76%) were among the non-Indigenous population and Indigenous status was not reported for 28 (14%) notifications.
- In 2012, the notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population was 3 per 100 000 compared to 1 per 100 000 in the non-Indigenous population.
- A total of 10 114 cases of newly diagnosed hepatitis C infection were reported in Australia in 2012; 731 (7%) occurred among the Aboriginal and Torres Strait Islander population, 3 444 (34%) were among the non-Indigenous population and Indigenous status was not reported for 5 939 (58%) notifications.
- The rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population was 166 per 100 000, 4 times higher than the 40 per 100 000 in the non-Indigenous population.
- At the end of 2012, an estimated 230 000 people were living with chronic hepatitis C infection including an estimated 58 000 with moderate to severe liver disease.

Table 1 Aboriginal and Torres Strait Islander population in Australia, 2011, by State/Territory

State/Territory	2011 Census population	Estimated resident population Number ¹
ACT	5184	4825
NSW	172 624	168 773
NT	56 779	69 855
QLD	155 825	164 883
SA	30 431	31 040
TAS	19 625	20 580
VIC	37 991	37 647
WA	69 665	77 694
Total	548 370	575 552

¹ Projected population, Aboriginal and Torres Strait Islander Australians, Australia and states/territories, 2006–2011, Commonwealth of Australia 2012.

Source: Australian Bureau of Statistics 2011, 2012

Table 2 Number and rate¹ of notifications of sexually transmissible infections and viral hepatitis in Australia², 2012, by Aboriginal and Torres Strait Islander status

Notifications of sexually transmissible infections and viral hepatitis	Aboriginal and Torres Strait Islander		Non-Indigenous		Excluded jurisdictions ⁴
	Number ¹	Rate ²	Number ³	Rate ²	
Chlamydia	6 792	1 379	34 762	385	ACT, NSW
Gonorrhoea	3 904	829	4 930	40	ACT, NSW
Infectious syphilis	167	27	1 257	6	
HIV infection	32	6	1 221	5	
Newly acquired hepatitis B	19	3	146	1	ACT
Newly diagnosed hepatitis C	731	166	3 444	40	ACT, QLD, 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 100 000 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.

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

Main Findings

Chlamydia

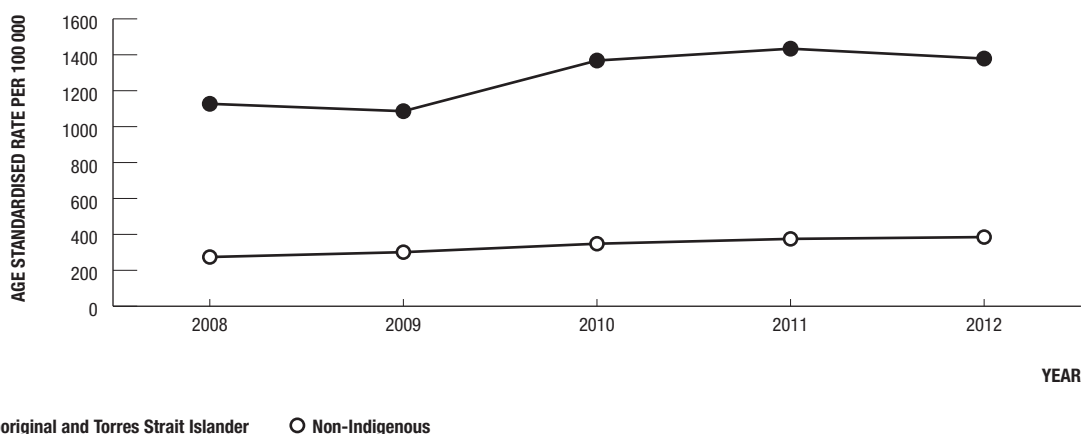
- Chlamydia continued to be the most frequently reported notifiable condition in Australia in 2012. There were a total of 82 707 notifications in 2012, 6 792 (8%) were among the Aboriginal and Torres Strait Islander population, 34 762 (42%) were among the non-Indigenous population and Indigenous status was not reported for 41 153 (50%) notifications.
- The chlamydia notification rate for the Aboriginal and Torres Strait Islander population of 1 379 per 100 000 was 4 times that of the non-Indigenous notification rate at 385 per 100 000 population.
- The chlamydia notification rate in Australia continues to increase in both the Aboriginal and Torres Strait Islander population and in the non-Indigenous population. The chlamydia notification rate in the Aboriginal and Torres Strait Islander population increased from 1 127 in 2008 to 1 379 in 2012 (22% increase). In the non-Indigenous population, the rate increased by 41%, from 274 in 2008 to 385 per 100 000 population in 2012.
- Chlamydia is notified predominantly among young people. In 2012, more than 80% of notifications were in people aged 15 to 29 years among both the Aboriginal and Torres Strait Islander population and non-Indigenous population.
- In major cities, the chlamydia notification rate in the Aboriginal and Torres Strait Islander population was 3 times higher than that among the non-Indigenous population, 6 times higher in outer regional areas, 7 times higher in remote areas, and 6 times higher in very remote areas.
- In 2010 – 2012 a large trial was underway in 66 remote communities in Northern Territory, Western Australian and Far North Queensland focused on increasing testing for sexually transmissible infections, which may have contributed to increased notifications in this period. Conversely there was under-reporting of notifications of chlamydia and gonorrhoea in 2012 by one laboratory in Northern Territory.

Chlamydia continues to be the most frequently reported notifiable condition in Australia in 2012. There were a total of 82 707 chlamydia notifications in 2012, of these 6 792 (8%) were among the Aboriginal and Torres Strait Islander population, 34 762 (42%) were among the non-Indigenous population and Indigenous status was not reported for 41 153 (50%) cases.

In the period 2008 – 2012, Aboriginal and Torres Strait Islander status was not reported for more than 50% of notifications in New South Wales and the Australian Capital Territory and as such notification data for chlamydia excludes these jurisdictions. Hereinafter notification data for the period 2008 – 2012 refers to data notified from the Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia.

The chlamydia notification rate for the Aboriginal and Torres Strait Islander population in 2012 of 1 379 per 100 000 population was 4 times that of the non-Indigenous population at 385 per 100 000 population (Figure 4). The notification rate of chlamydia in the Aboriginal and Torres Strait Islander population increased from 1 127 in 2008 to 1 379 in 2012 (22% increase). In the non-Indigenous population, the rate increased by 41%, from 274 in 2008 to 385 per 100 000 population in 2012 (Figure 4). However, these increases may be an artefact of increased testing.

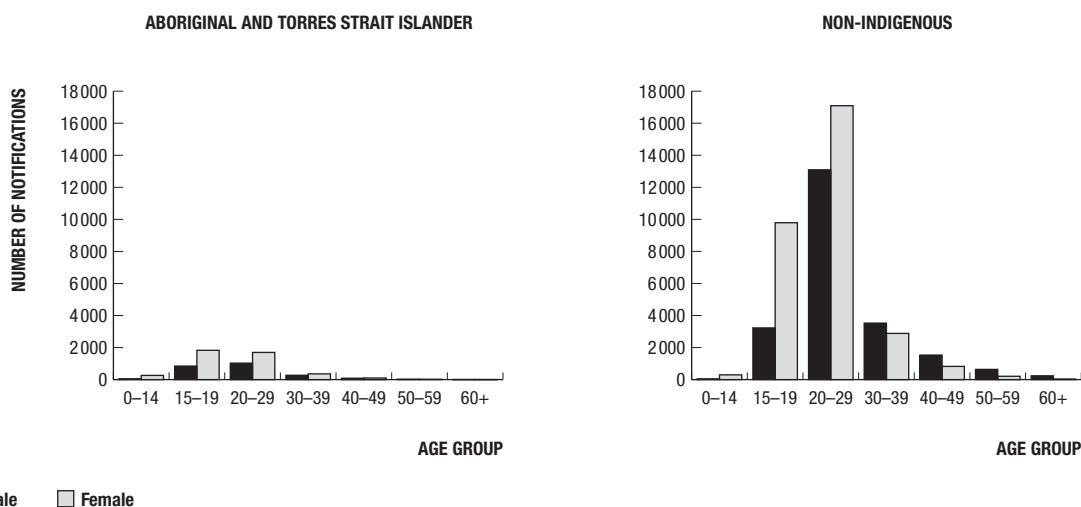
Figure 4 Notification rate of chlamydia by Aboriginal and Torres Strait Islander status¹ and year



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.

Chlamydia is notified predominantly among young people. In 2012, more than 80% of diagnoses were in 15 to 29 year olds in both Aboriginal and Torres Strait Islander and non-Indigenous populations (Figure 5). In 2012, 2 306 and 4 263 chlamydia notifications were among Aboriginal and Torres Strait Islander males and females respectively, providing a male to female ratio of 0.5:1 compared to 0.7:1 in non-Indigenous population.

Figure 5 Number of notifications of chlamydia newly diagnosed in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group

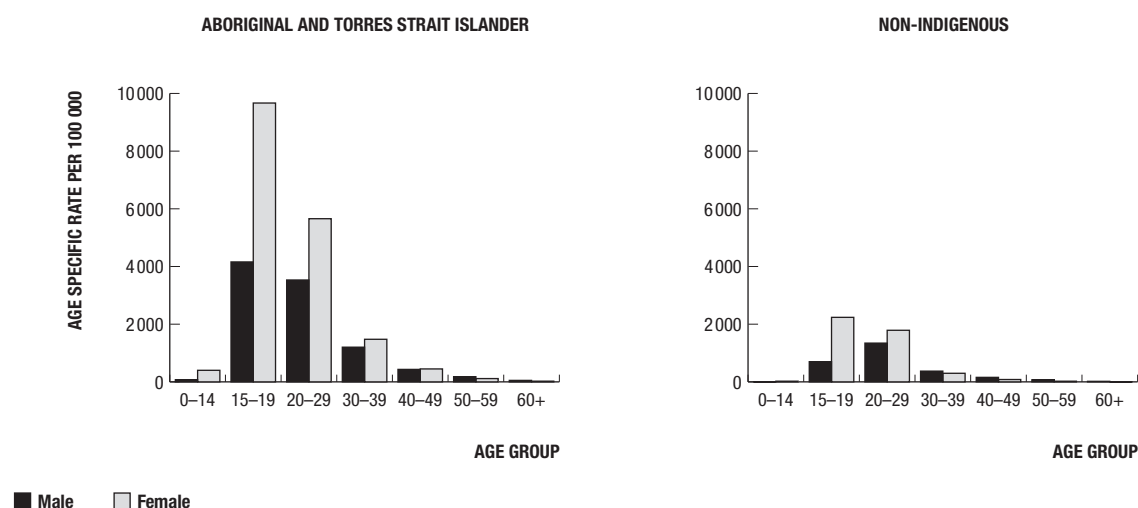


¹ Jurisdictions (NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

The chlamydia notification rate in the Aboriginal and Torres Strait Islander population in the 15 – 19 and the 20 – 29 year age groups in 2012 was more than 5 times and 3 times higher, respectively, than in the non-Indigenous population (Figure 6). The highest notification rates occurred among females in the 15 – 19 and 20 – 29 year age groups, and may reflect greater disease burden and/or higher rates of access to health services and subsequent testing in these populations (Figure 6).

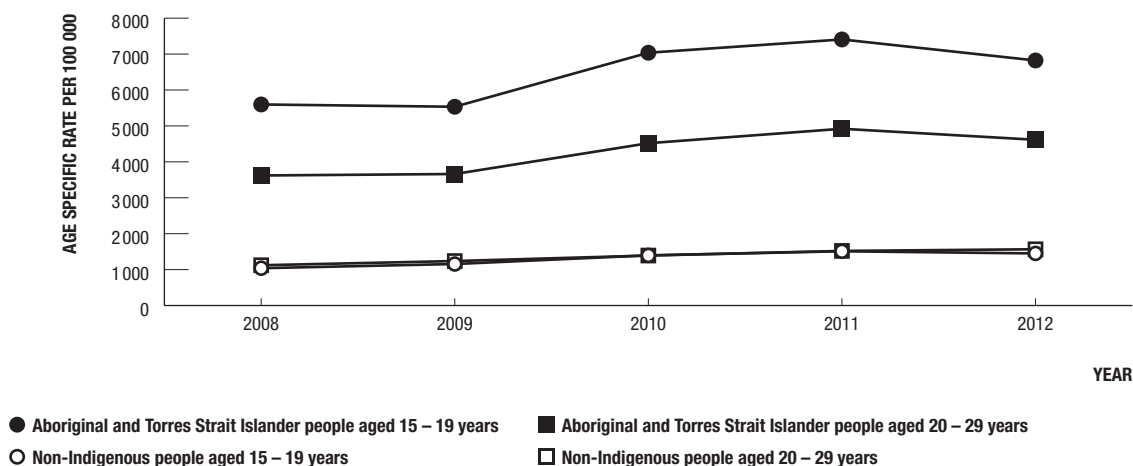
From 2008 – 2012, the chlamydia notification rate in the Aboriginal and Torres Strait Islander population in the 15 – 19 and 20 – 29 year age groups increased by 22% and 27%, respectively, whereas in the non-Indigenous population the rate increased by 40% in both age groups (Figure 7).

Figure 6 Notification rate of chlamydia in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group



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.

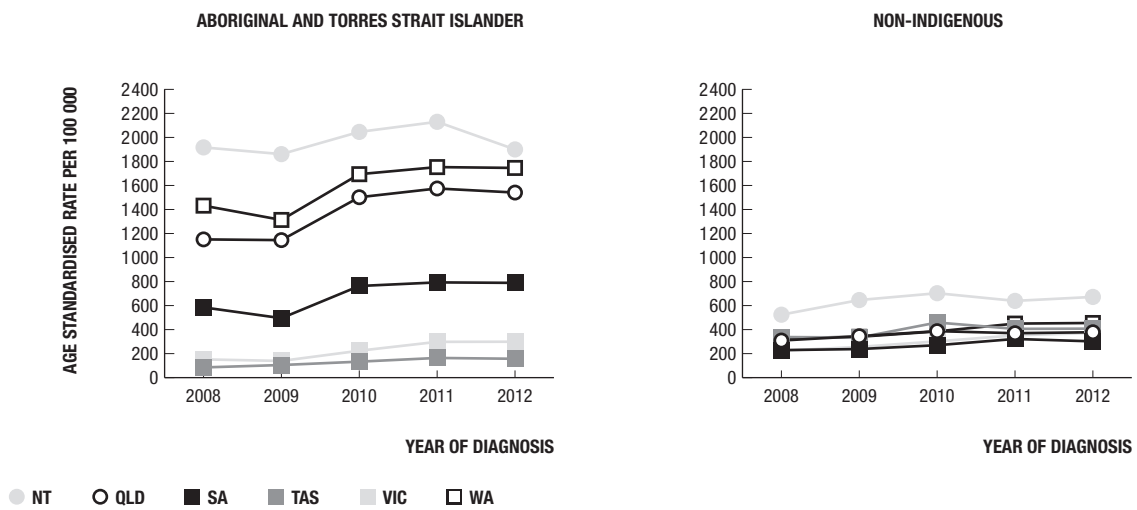
Figure 7 Notification rate of chlamydia in selected age groups by Aboriginal and Torres Strait Islander status¹ and year



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.

The chlamydia notification rate from 2008 – 2012 in the Aboriginal and Torres Strait Islander and non-Indigenous populations increased by 22% and 38% in Western Australia, 34% and 23% in Queensland, 96% and 66% in Victoria, 85% and 21% in Tasmania, 35% and 32% in South Australia, respectively (Figure 8). In the Northern Territory, the chlamydia notification rate in the Aboriginal and Torres Strait Islander population increased in 2010 – 2011 but declined in 2011 – 2012, compared to a 28% increase in the non-Indigenous population in the same time period. The decline in the chlamydia notification rate in the Aboriginal and Torres Strait Islander in 2012 in the Northern Territory may be influenced by under-reporting at one laboratory.

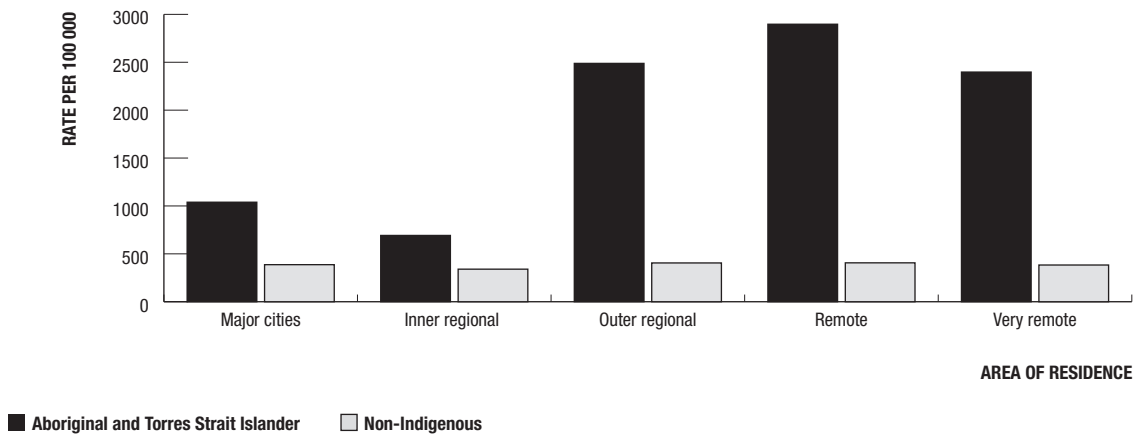
Figure 8 Notification rate of chlamydia by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



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 2012, the chlamydia notification rate in the Aboriginal and Torres Strait Islander population resident in major cities (1 039 per 100 000) was 3 times higher than the rate (387 per 100 000) in the non-Indigenous population, 2 times higher in inner regional centres, 6 times higher in outer regional areas, and 7 times higher in remote areas (Figure 9).

Figure 9 Notification rate of chlamydia in 2012 by Aboriginal and Torres Strait Islander status¹ and area of residence



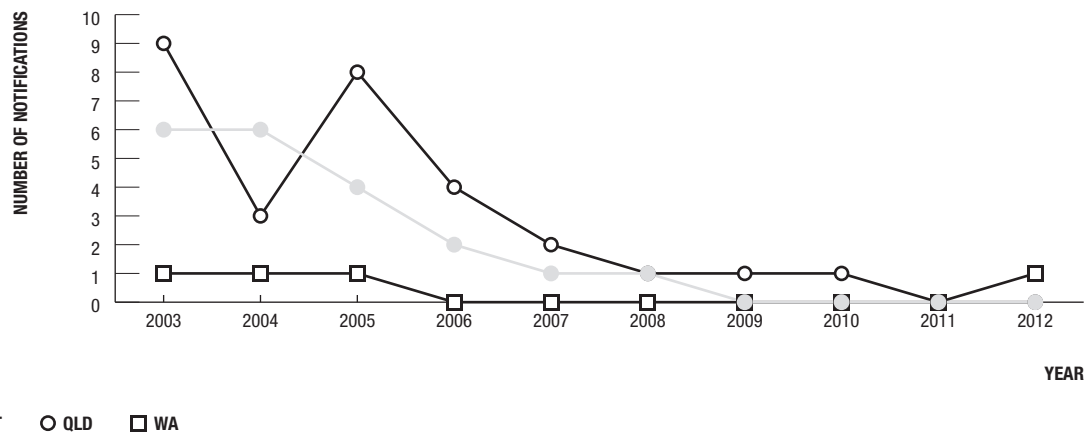
¹ Jurisdictions (NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

Donovanosis

- Since 2007 there have been fewer than 3 notifications of donovanosis per year nationally, with zero in 2011 and only one in 2012. 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 notifications of donovanosis from 13 in 2005 to zero in 2011 and one in 2012 may be attributed to improved case ascertainment and treatment (Figure 10). There were no notifications of donovanosis in New South Wales, South Australia, Tasmania and Victoria in the past five years, no notifications in Northern Territory in the past three years, and no notifications in Queensland in the past two years. In Western Australia there were no notifications between 2006 – 2011 with one in 2012.

Figure 10 Number of notifications of donovanosis by year



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

Gonorrhoea

- There were a total of 13 649 notifications of gonorrhoea in Australia in 2012; 3 904 (28%) were identified as Aboriginal and Torres Strait Islander cases, 4 930 (36%) as non-Indigenous cases and Indigenous status was not reported for 4 815 (35%) cases.
- In 2012, the gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population was 21 times that for the non-Indigenous population (829 vs. 40 per 100 000 population).
- In 2012, 77% of the Aboriginal and Torres Strait Islander cases were in the age group 15 – 29 years compared with 57% in the non-Indigenous population.
- The male to female ratio of gonorrhoea notifications in 2012 in the Aboriginal and Torres Strait Islander population was 0.8:1 suggesting transmission predominantly through heterosexual contact. In contrast, the male to female ratio of 3.6:1 in the non-Indigenous population suggests transmission occurring predominantly by sex between males.
- In 2012, gonorrhoea notification rates in the Aboriginal and Torres Strait Islander population were substantially higher than in the non-Indigenous population in all areas of residence, especially in outer regional, remote and very remote areas of Australia.

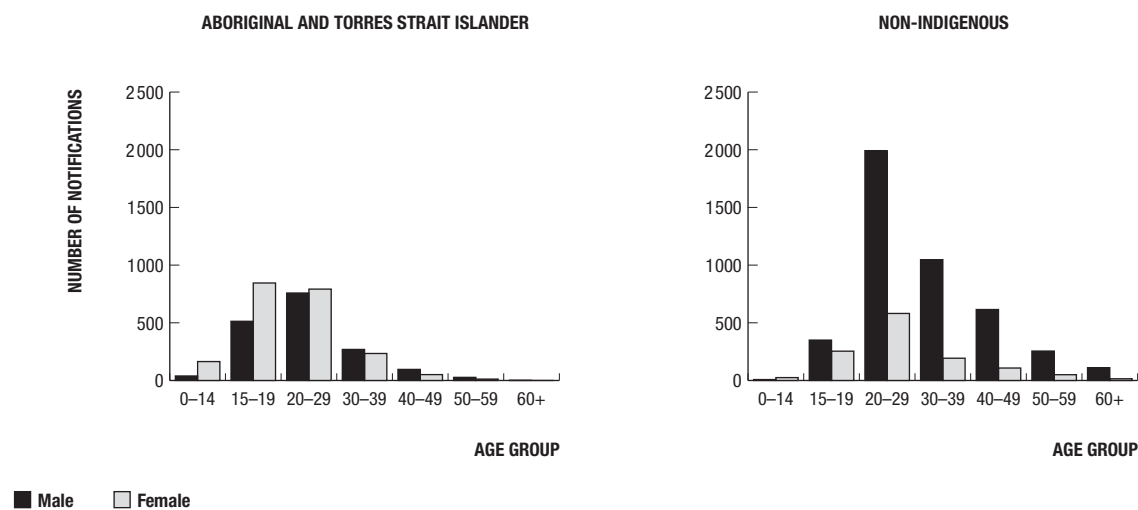
Of 13 649 notifications of gonorrhoea in 2012, 4 930 (36%) were in the non-Indigenous population, 3 904 (28%) in the Aboriginal and Torres Strait Islander population and Indigenous status was not reported for 4 815 (36%) notifications.

In the period 2008 – 2012, Aboriginal and Torres Strait Islander status was not reported for more than 50% of notifications in New South Wales. Hereinafter notification data for the period 2008-2012 refers to data notified from the Australian Capital Territory, the Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia.

Differences in age at diagnosis of gonorrhoea exist between the Aboriginal and Torres Strait Islander population and the non-Indigenous population. In 2012, 77% of gonorrhoea notifications among the Aboriginal and Torres Strait Islander population were in 15 – 29 year olds compared with 57% in the same age group in the non-Indigenous population (Figure 11).

In 2012, 1 706 and 2 098 notifications of gonorrhoea were made among Aboriginal and Torres Strait Islander males and females, respectively, giving a male to female ratio of 0.8:1 suggesting transmission predominantly through heterosexual contact (Figure 11). In comparison, there were 4 385 notifications of gonorrhoea in males and 1 234 in females in the non-Indigenous population in 2012; giving a male to female ratio of 3.6:1, suggesting transmission occurring predominantly by sex between males (Figure 11).

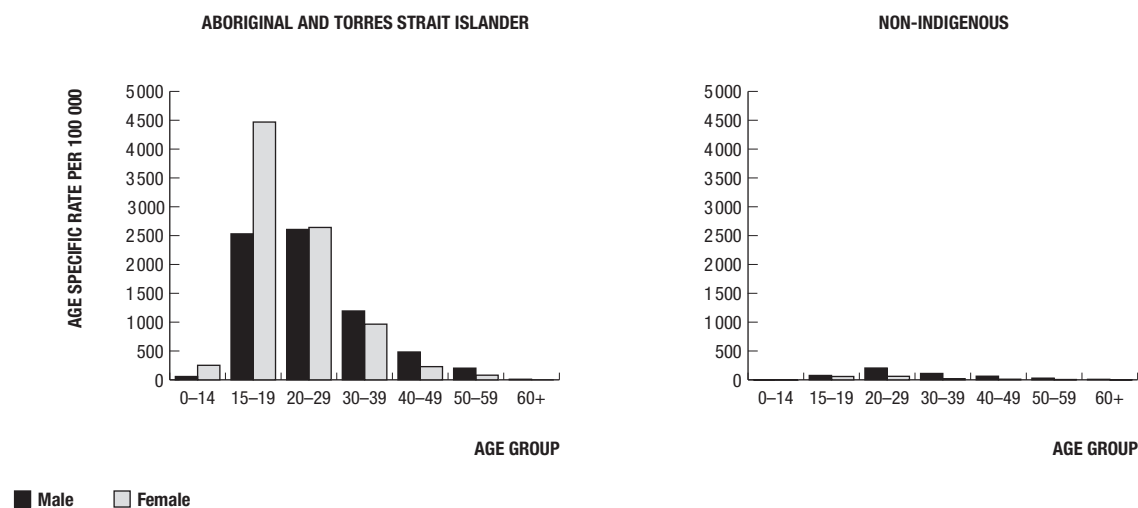
Figure 11 Number of notifications of gonorrhoea newly diagnosed in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group



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

The gonorrhoea notification rate in the age groups 15 – 19 years and 20 – 29 years was 33 and 13 times higher, respectively, in the Aboriginal and Torres Strait Islander male population than in the non-Indigenous male population, and was 77 and 43 times higher, respectively, in the Aboriginal and Torres Strait Islander female population than in the non-Indigenous female population (Figure 12).

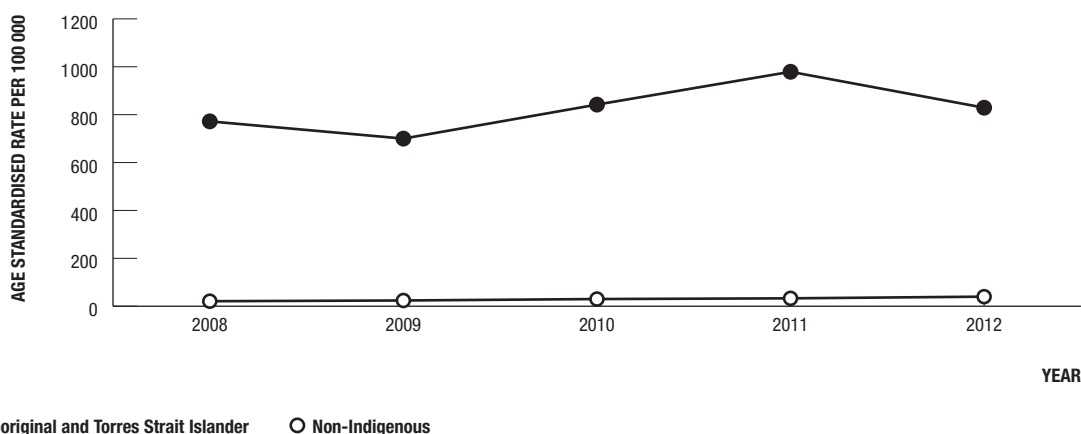
Figure 12 Notification rate of gonorrhoea in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group



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

In 2012, the gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population of 829 per 100 000 was 21 times higher than the non-Indigenous notification rate of 40 per 100 000 population (Figure 13). The gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population increased by 7% from 772 per 100 000 in 2008 to 829 in 2012, after peaking in 2011 at 979 per 100 000. In the non-Indigenous population, the gonorrhoea notification rate almost doubled from 21 per 100 000 in 2008 to 40 in 2012.

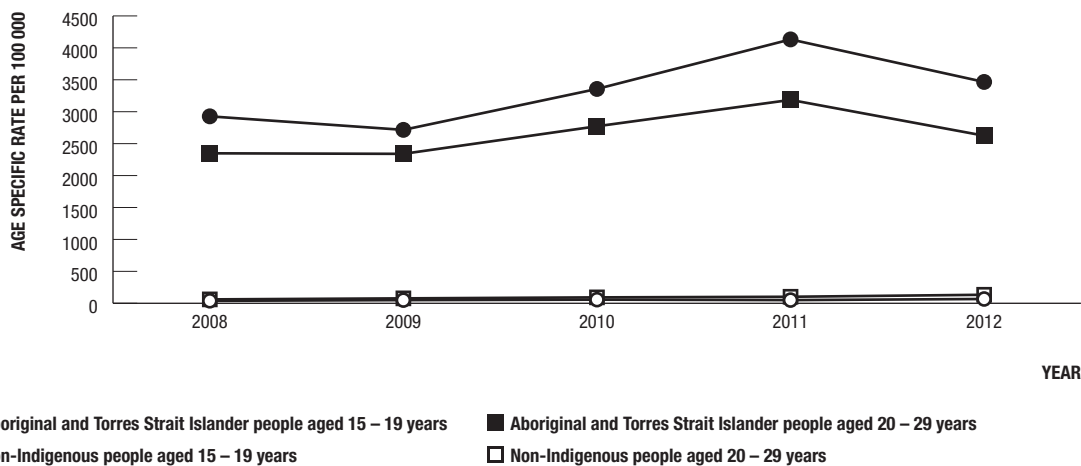
Figure 13 Notification rate of gonorrhoea in 2012 by Aboriginal and Torres Strait Islander status¹ and year



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

From 2008 – 2012, the gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population increased by 18% in the 15 – 19 year age group and by 11% in the 20 – 29 year age group, whereas in the non-Indigenous population the rate increased by 72% in the 15 – 19 year age group and more than doubled in the 20 – 29 year age group (Figure 14).

Figure 14 Notification rate of gonorrhoea in selected age groups by Aboriginal and Torres Strait Islander status¹ and year

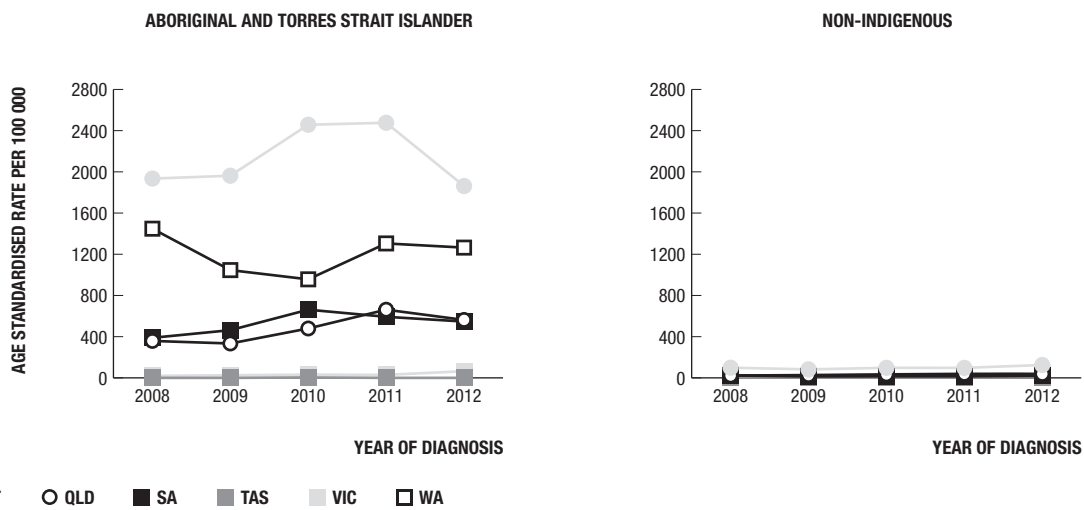


¹ Jurisdictions (ACT, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

From 2008 – 2012, the rate of diagnosis of gonorrhoea in the Aboriginal and Torres Strait Islander population fluctuated within jurisdictions, with increases in many jurisdictions until 2011, followed by a decline in 2011 – 2012 in Northern Territory and plateau or small decrease in 2011 – 2012 in Queensland, South Australia, Tasmania and Western Australia (Figure 15).

In 2010 – 2012 a large trial was underway in 66 remote communities in Northern Territory, Western Australian and Far North Queensland focused on increasing testing for sexually transmissible infections, which may have contributed to increased notifications in this period. Conversely, there was under-reporting of notifications of chlamydia and gonorrhoea in 2012 by one laboratory in the Northern Territory.

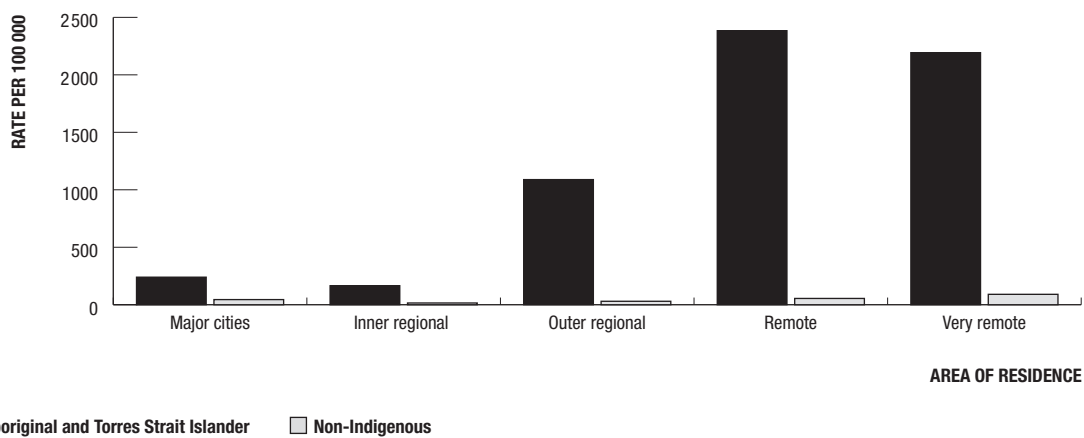
Figure 15 Notification rate of gonorrhoea by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



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

In 2012, 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 gonorrhoea diagnosis was 5 times, 10 times, 36 times, 43 times, and 24 times higher than the rate in the non-Indigenous population, respectively (Figure 16).

Figure 16 Notification rate of gonorrhoea in 2012 by Aboriginal and Torres Strait Islander status¹ and area of residence



¹ Jurisdictions (ACT, 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

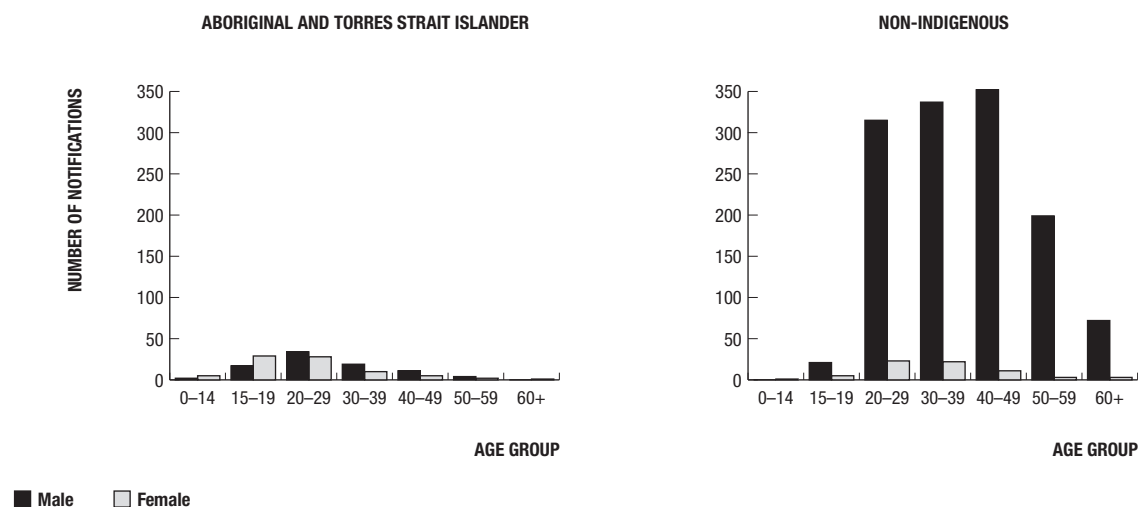
- Notifications of infectious syphilis have been reported nationally since 2004.
- There were a total of 1 534 infectious syphilis notifications nationally in 2012, with 167 (11%) among the Aboriginal and Torres Strait Islander population, 1 257 (82%) among the non-Indigenous population and a further 110 (7%) cases for which Indigenous status was not reported. Information on Aboriginal and Torres Strait Islander status was reported for more than 50% of infectious syphilis notifications in each of the past five years through all health jurisdictions in Australia.
- In 2012, the infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population was 5 times higher than the non-Indigenous population (27 vs. 6 per 100 000 population).
- The infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population decreased in 2008 – 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. In 2011 – 2012, notifications of infectious syphilis decreased slightly in Aboriginal and Torres Strait Islander communities. However, the trend varies across jurisdictions with a substantial decline in Northern Territory and a plateau in Queensland.
- The number of infectious syphilis notifications among Aboriginal and Torres Strait Islander females and males in 2012 was 80 and 87 (male to female ratio of 1.1:1), respectively, whereas in the non-Indigenous population there were 68 notifications in females and 1 296 in males in 2012 (male to female ratio of 19.1:1). 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 2012, 86% and 53% of infectious syphilis notifications in the Aboriginal and Torres Strait Islander and non-Indigenous populations, respectively, occurred among people aged less than 40 years of age.
- In 2012, the infectious syphilis notification rate among Aboriginal and Torres Strait Islander population increased as remoteness of residence increased, whereas in the non-Indigenous population the rate was highest in major cities and inner regional areas.

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 2012, there were 1 534 infectious syphilis notifications nationally, with 167 (11%) cases among the Aboriginal and Torres Strait Islander population, 1 257 cases (82%) among the non-Indigenous population and a further 110 cases (7%) for which Indigenous status was not reported.

In 2012, 52% of notifications of infectious syphilis in the Aboriginal and Torres Strait Islander population were among males, compared with 95% in males in the non-Indigenous population (Figure 17). 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 17 Number of notification of infectious syphilis in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group



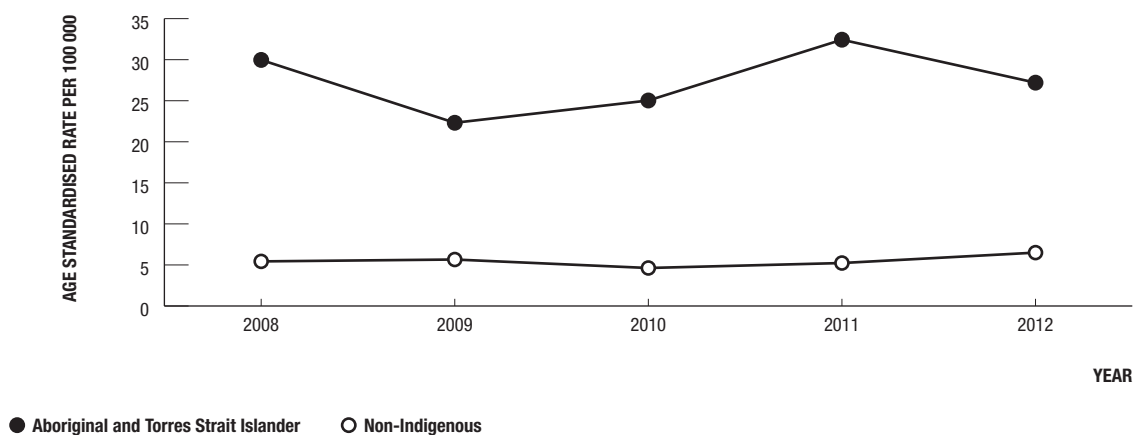
¹ Jurisdictions (ACT, NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

In 2012, the infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population was nearly 5 times that for the non-Indigenous population (27 vs. 6 per 100 000 population) (Figure 18).

In the Aboriginal and Torres Strait Islander population infectious syphilis notifications decreased from 180 cases in 2008 to 120 in 2009, increased to 200 in 2011, and then decreased to 167 in 2012.

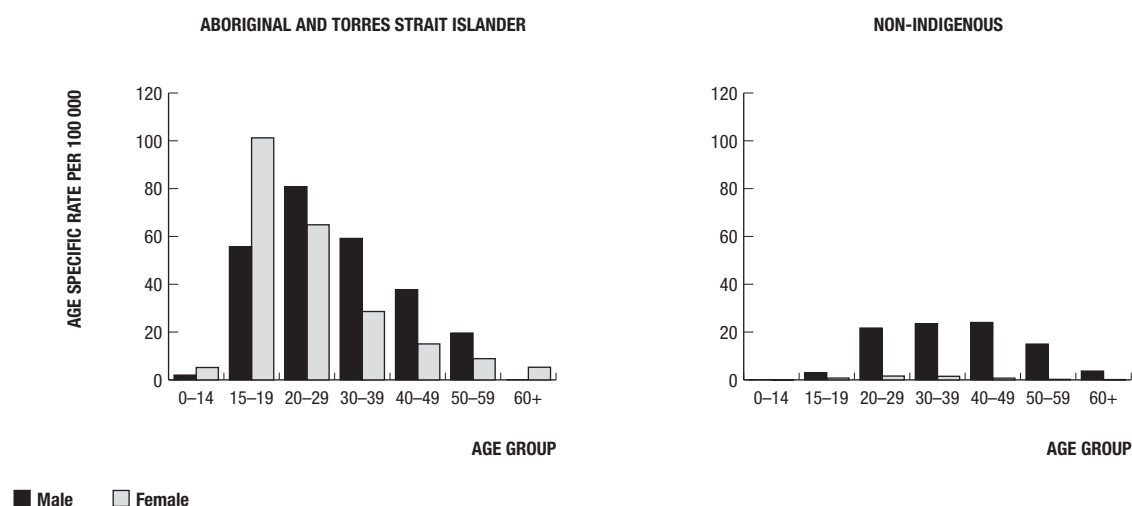
In 2012, the infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population was higher in all age groups than in the non-Indigenous population, particularly the 15 – 19 year age group where the notification rate was 40 times higher. In 2012, the infectious syphilis notification rate was highest in the 15 – 19 year age group for the Aboriginal and Torres Strait Islander population and highest in the 40 – 49 year age group for the non-Indigenous population (Figure 19).

Figure 18 Notification rate of infectious syphilis by Aboriginal and Torres Strait Islander status¹ and year



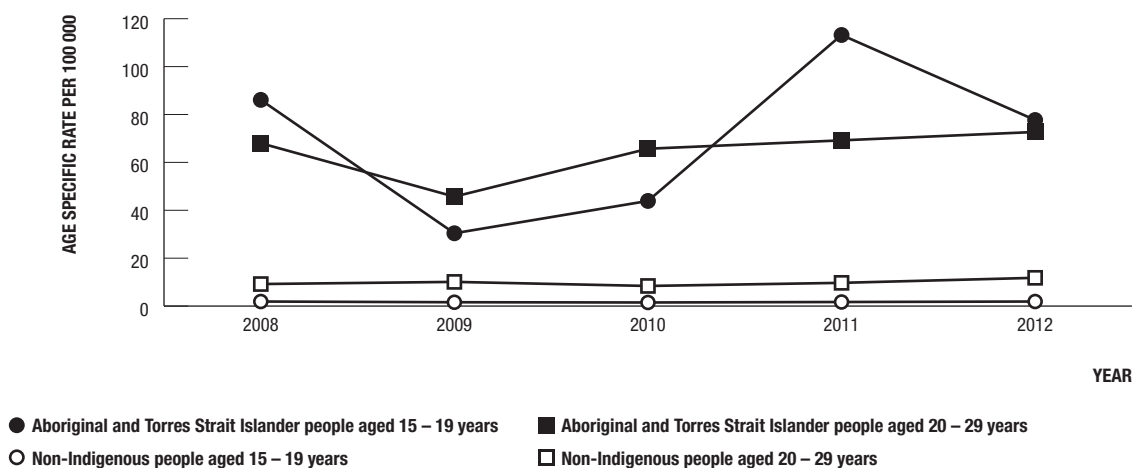
¹ Jurisdictions (ACT, NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

Figure 19 Notification rate of infectious syphilis in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group



¹ Jurisdictions (ACT, 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 20 Notification rate of infectious syphilis in selected age groups by Aboriginal and Torres Strait Islander status¹ and year

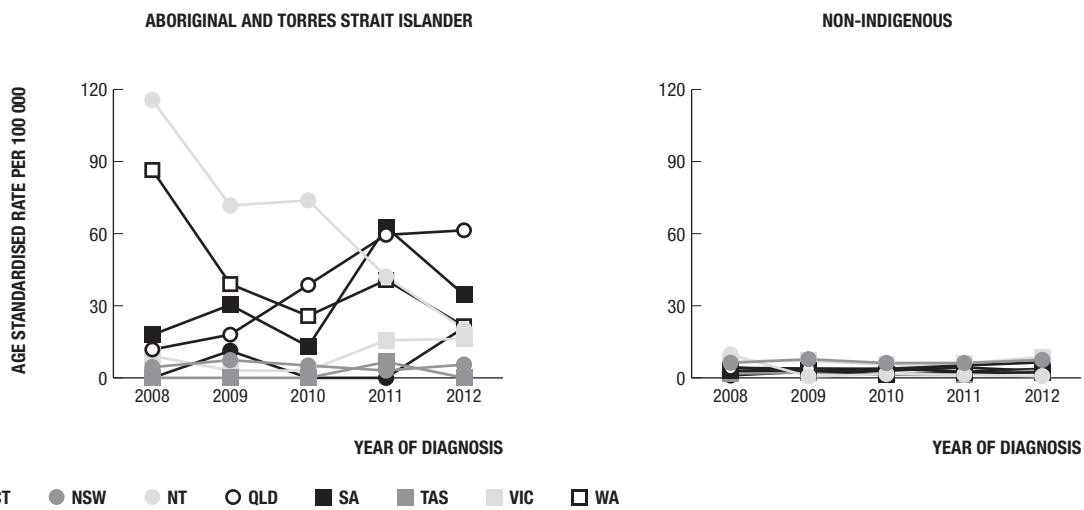


¹ Jurisdictions (ACT, NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

In 2012, the majority of infectious syphilis notifications in the Aboriginal and Torres Strait Islander population occurred in Queensland (70%), Western Australia (7%) and Northern Territory (7%). In contrast, the majority of infectious syphilis notifications in the non-Indigenous population occurred in New South Wales (36%), Victoria (34%) and Queensland (19%).

From 2008 – 2012, the notification rate of infectious syphilis in the Aboriginal and Torres Strait Islander population decreased steadily by 82% in the Northern Territory (116 in 2008 to 20 per 100 000 in 2012), by 75% in Western Australia (86 in 2008 to 21 per 100 000 in 2012) but increased almost 5-fold in Queensland between 2008 and 2011 (12 to 59), and plateaued in 2011 – 2012 at 61 (Figure 21).

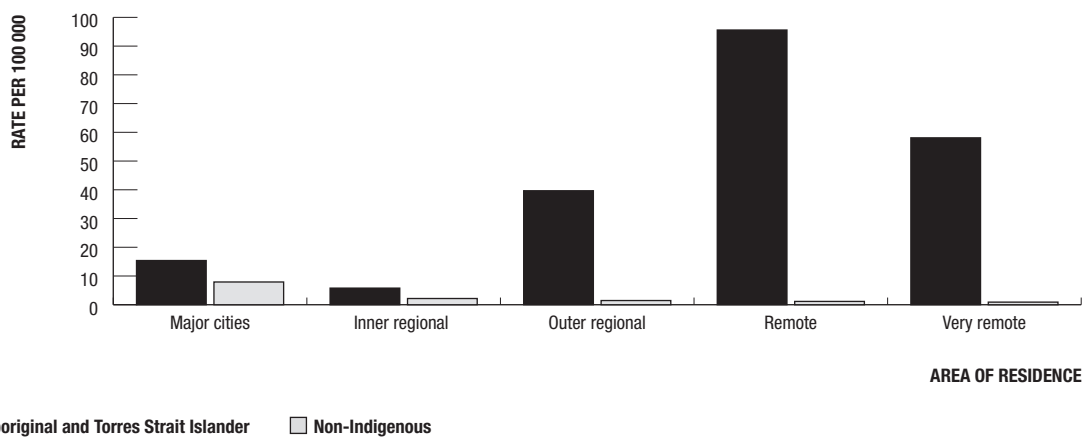
Figure 21 Notification rate of infectious syphilis by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



¹ Jurisdictions (ACT, 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 2012, the infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population was about two times the rate of the non-Indigenous population in major cities and inner regional areas, increasing to 27, 83 and 64 times the rate in outer regional, remote and very remote areas of Australia, respectively (Figure 22).

Figure 22 Notification rate of infectious syphilis in 2012 by Aboriginal and Torres Strait Islander status¹ and area of residence



¹ Jurisdictions (ACT, NSW, NT, QLD, SA, TAS, VIC 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 notifications in each year over the past five years.

From 2008 – 2012, a total of 3 063 and 4 660 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, 1 803 and 250 cases of gonorrhoea and 59 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 Island population, the majority of these notifications (95% for chlamydia, 94% for gonorrhoea and 92% for infectious syphilis) were among people aged 13 to 15 years. A similar pattern of diagnosis occurred among the non-Indigenous young population where 96% of chlamydia, 94% of gonorrhoea and 71% of infectious syphilis notifications were among people aged 13 to 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.

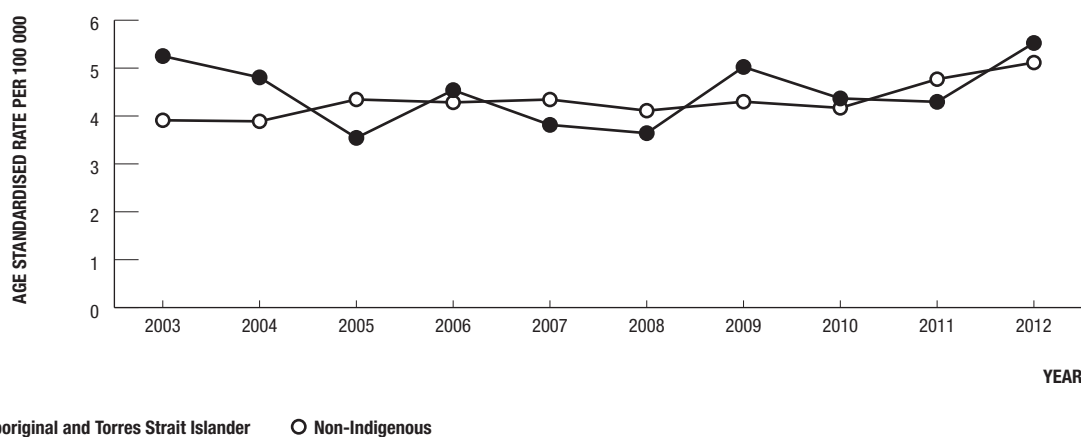
HIV infection

- A total of 1 253 notifications of newly diagnosed HIV infection were reported in 2012 including 32 which were identified as Aboriginal and Torres Strait Islander. In 2012, the notification rate of newly diagnosed HIV infection was similar for both populations; 5.5 per 100 000 in the Aboriginal and Torres Strait Islander population compared to 5.1 per 100 000 in the non-Indigenous population.
- During the period 2003 – 2012, 225 notifications of newly diagnosed HIV infections were among the Aboriginal and Torres Strait Islander population, 77% were among males, the median age at diagnosis was 33 years; 26% of cases were classified as newly acquired cases and 11% were classified as a late HIV diagnosis (CD4+ cell count of 200 – 349 cells/ μ l).
- In the period 2008 – 2012, a higher proportion of notifications of newly diagnosed HIV infection among the Aboriginal and Torres Strait Islander population were attributed to injecting drug use (13% vs. 2%) and a similar proportion to heterosexual contact (18% vs. 17%) compared with the non-Indigenous population.

All jurisdictions report accurate and complete data sets for newly diagnosed HIV infection. Accurate and complete systems for the notification of newly diagnosed HIV infection exist nationally that enables greater than 95% of all newly diagnosed HIV infections in 2003 – 2012 to be notified by Aboriginal and Torres Strait Islander status.

Of the 1 253 notifications of newly diagnosed HIV infections in 2012, 1 221 were identified as non-Indigenous and 32 as Aboriginal and Torres Strait Islander. The notification rate of newly diagnosed HIV infection was similar for both populations in 2012 with a rate of 5.5 and 5.1 per 100 000 for the Aboriginal and Torres Strait Islander population and non-Indigenous, non-high prevalence country of birth population, respectively (Figure 23).

Figure 23 Notification rate of newly diagnosed HIV infection 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 225 notifications of newly diagnosed HIV infections among the Aboriginal and Torres Strait Islander population in the ten-year period 2003 – 2012, 77% were diagnosed among males, the median age at diagnosis was 33 years, 26% of cases were classified as newly acquired cases, 12% as a late diagnosis (CD4+ cell count of 200 – 349 cells/ μ l) and 20% as advanced HIV infection (CD4+ cell count of less than 200 cells/ μ l) (Table 3).

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

Table 3 Characteristics of notifications of newly diagnosed HIV infection in Aboriginal and Torres Strait Islander people¹, 2003 – 2012, by year. Number of notifications, median age and percent (number) of total notifications by sex, newly acquired infection, late HIV diagnosis, State/Territory and HIV exposure category

Characteristic	Year of HIV diagnosis										
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Total notifications	23	22	18	23	19	19	24	22	23	32	225
Males (%)	73.9	72.7	83.3	73.9	84.2	79.0	83.3	68.2	73.9	81.3	77.3
Median age (years)	34	29	33	31	33	36	37	35	33	27	33
Newly acquired infection (%)	17.4 (4)	31.8 (7)	16.7 (3)	30.4 (7)	26.3 (5)	31.6 (6)	29.2 (7)	22.7 (5)	21.7 (5)	31.3 (10)	26.2 (59)
HIV status at diagnosis (%)²											
Late HIV diagnosis	4.3	4.5	5.6	13.0	21.1	21.1	12.5	18.2	4.3	9.4	11.6
Advanced HIV infection	26.1	31.8	11.1	8.7	10.5	15.8	33.3	9.1	34.8	18.7	20.4
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)	0.0 (0)
NSW	17.4 (4)	18.2 (4)	11.1 (2)	38.1 (9)	42.1 (8)	38.9 (8)	39.1 (9)	31.8 (7)	21.7 (5)	34.4 (11)	29.8 (67)
NT	4.3 (1)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	5.6 (1)	0.0 (0)	4.5 (1)	8.7 (2)	6.2 (2)	3.6 (8)
QLD	26.1 (6)	22.7 (5)	44.4 (8)	23.8 (6)	26.3 (5)	11.1 (2)	30.4 (8)	36.4 (8)	34.8 (8)	40.6 (13)	30.7 (69)
SA	8.7 (2)	9.1 (2)	0.0 (0)	0.0 (0)	5.3 (1)	22.2 (4)	8.7 (2)	4.5 (1)	4.3 (1)	3.1 (1)	6.2 (14)
TAS	0.0 (0)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	4.4 (1)	0.0 (0)	4.3 (1)	0.0 (0)	1.3 (3)
VIC	21.7 (5)	18.2 (4)	11.1 (2)	9.5 (2)	15.8 (3)	0.0 (0)	4.4 (1)	13.6 (3)	4.3 (1)	15.6 (5)	11.6 (26)
WA	21.7 (5)	22.7 (5)	33.3 (6)	28.6 (6)	10.5 (2)	22.2 (4)	13.0 (3)	9.1 (2)	21.7 (5)	0.0 (0)	16.9 (38)
HIV exposure category (%)											
Men who have sex with men	31.8 (7)	52.4 (11)	27.8 (5)	47.8 (11)	47.4 (9)	47.4 (9)	52.6 (10)	60.0 (12)	63.6 (14)	71.0 (22)	51.4 (110)
Men who have sex with men, and injecting drug use	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)	3.2 (1)	8.4 (18)
Injecting drug use ³	13.6 (3)	19.0 (4)	16.7 (3)	21.7 (5)	15.8 (3)	36.8 (7)	10.5 (2)	20.0 (4)	4.5 (1)	6.5 (2)	15.9 (34)
Heterosexual contact	40.9 (9)	28.6 (6)	27.8 (5)	26.1 (6)	21.1 (4)	10.5 (2)	21.1 (4)	15.0 (3)	27.3 (6)	19.4 (6)	23.8 (51)
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)	4.5 (1)	0.0 (0)	0.5 (1)
Other/undetermined ⁴	4.3 (1)	4.5 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	20.8 (5)	9.1 (2)	4.3 (1)	3.1 (1)	4.9 (11)

1 Indigenous status at HIV diagnosis was available for notifications 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 notifications attributed to each exposure category.

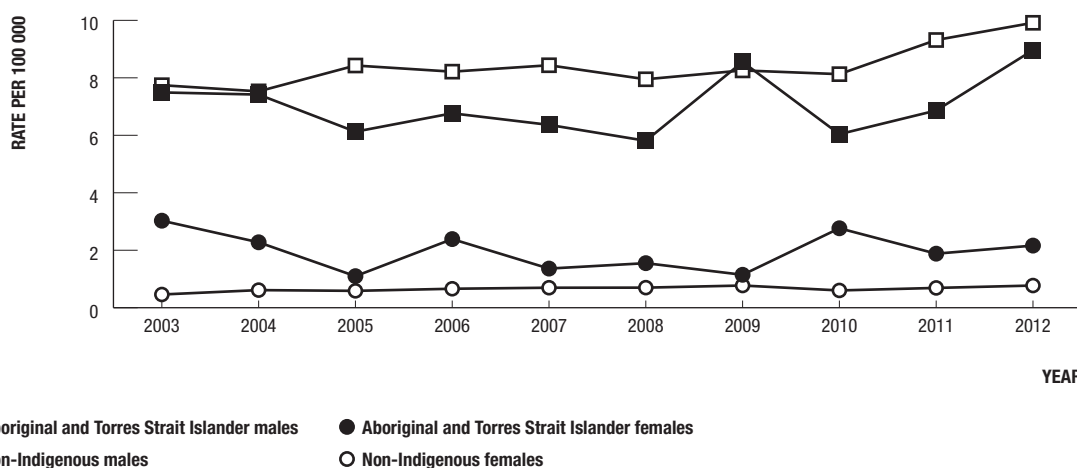
Source: State/Territory health authorities

For the purposes of a longer term trend analysis of HIV diagnoses in the Aboriginal and Torres Strait Islander population we have analysed data for the period 2003 – 2012 and excluded non-Indigenous cases whose infection was acquired in a high prevalence country. In 2003 – 2012, the notification rate of newly diagnosed HIV infection in the Aboriginal and Torres Strait Islander population remained steady at around 4.5 per 100 000 in 2003 – 2011 and increased to 5.5 per 100 000 in 2012 (Figure 23). In the non-Indigenous population, the rate also remained steady at around 4.2 in 2003 – 2011 and increased to 5.1 per 100 000 in 2012. The notification rates of newly diagnosed HIV infection in the Aboriginal and Torres Strait Islander population are based on small numbers and may reflect localised occurrences rather than national patterns.

The notification rate of newly diagnosed HIV infection among Aboriginal and Torres Strait Islander females decreased from 3.0 per 100 000 population in 2003 to 2.2 per 100 000 population in 2012 (based on small numbers) and in non-Indigenous Australian born females the rate of HIV diagnosis remained stable at 0.5 per 100 000 and 0.8 per 100 000 in 2003 and 2012, respectively (Figure 24).

The notification rate of newly diagnosed HIV infection among Indigenous males was relatively stable in the years 2003 – 2011 at around 6.7 and increased to 8.9 in 2012 (Figure 24). Among Australian born non-Indigenous males, the rate of HIV diagnosis was stable at around 8.2 in 2003 – 2011 and increased to 9.9 in 2012. The rate among Indigenous women declined from around 2.2 in the years 2003 – 2007 to 1.8 in 2008 – 2012 whereas the rate among Australian born non-Indigenous women remained below 1 per 100 000 population over the past ten years.

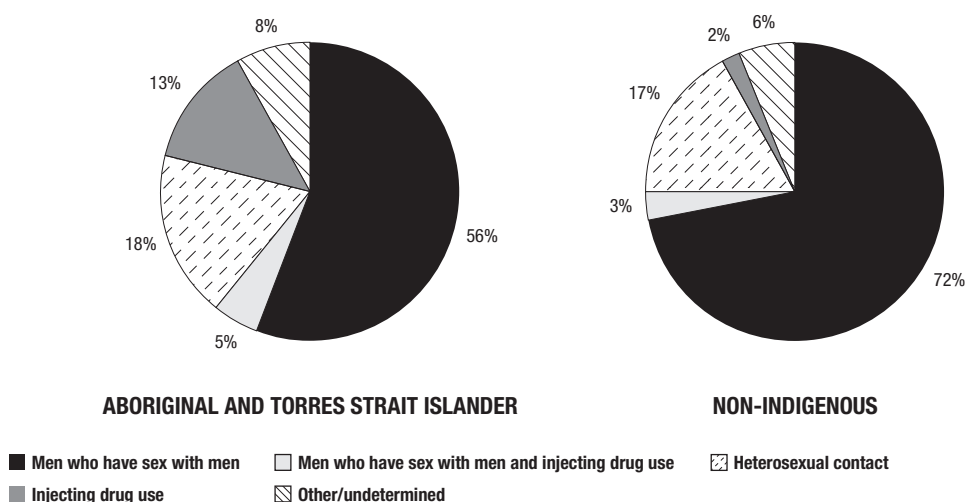
Figure 24 Notification rate of newly diagnosed HIV infection in the Australian born population by Aboriginal and Torres Strait Islander status¹, sex and year



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

In the period 2008 – 2012, a higher proportion of notifications of newly diagnosed HIV infection among Aboriginal and Torres Strait Islander cases were attributed to injecting drug use (13% vs. 2%) and a similar proportion to heterosexual contact (18% vs. 17%) compared with non-Indigenous non-high prevalence country of exposure cases (Figure 25). A higher proportion of diagnoses among Aboriginal and Torres Strait Islander cases were among women (21.7%) compared with the non-Indigenous non-high prevalence country of exposure cases (7.9%).

Figure 25 New HIV notifications, 2008 – 2012, by Aboriginal and Torres Strait Islander status¹ and HIV exposure category



¹ Cases from high HIV prevalence countries were excluded from the non-Indigenous category.

During the period 2008 – 2012, notifications of newly diagnosed HIV infection among the Aboriginal and Torres Strait Islander cases were reported from New South Wales (30%), Northern Territory (4%), Queensland (30%), South Australia (6%), Tasmania (1%), Victoria (12%) and Western Australia (17%).

In 2012, the notification rate of newly diagnosed HIV infection was highest among those resident in major cities in both the Aboriginal and Torres Strait Islander population and the non-Indigenous population (Figure 26). The rate of HIV diagnosis in the Aboriginal and Torres Strait Islander population was 12 per 100 000 in major cities compared to 0 per 100 000 in remote areas. The rate of HIV diagnosis in the non-Indigenous population was 7 per 100 000 in major cities compared to 3 per 100 000 in the remote areas (Figure 26 and Table 4).

Figure 26 Notification rate of newly diagnosed HIV infection in 2012 by Aboriginal and Torres Strait Islander status and area of residence

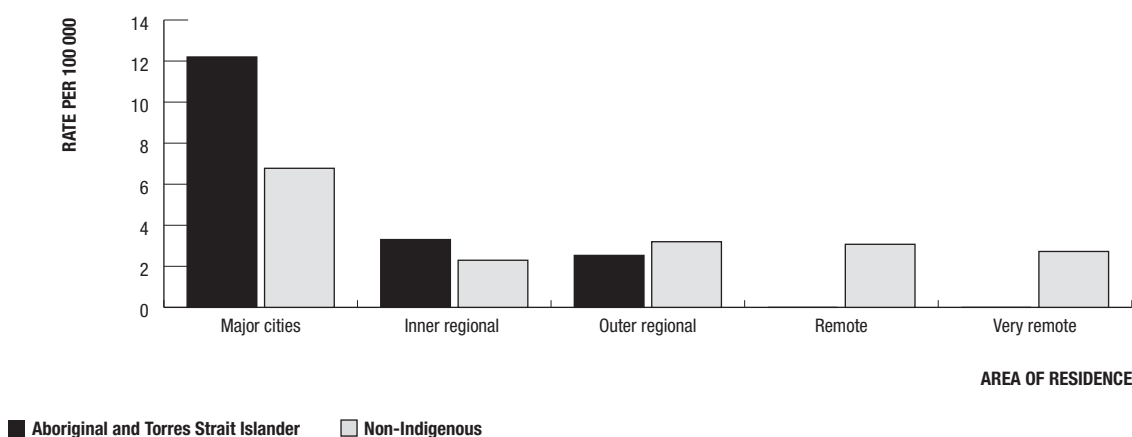


Table 4 Notification rate¹ of diagnosed of HIV infection, 2008 – 2012, by year, Aboriginal and Torres Strait Islander status and area of residence

Area of residence	Aboriginal and Torres Strait Islander status	Year of diagnosis				
		2008	2009	2010	2011	2012
Major cities	Aboriginal and Torres Strait Islander	7	10	7	7	12
	Non-Indigenous ²	6	6	6	6	7
Inner regional	Aboriginal and Torres Strait Islander	1	1	3	2	3
	Non-Indigenous ²	2	2	2	2	2
Outer regional	Aboriginal and Torres Strait Islander	1	2	3	2	3
	Non-Indigenous ²	4	2	2	2	3
Remote	Aboriginal and Torres Strait Islander	0	3	0	0	0
	Non-Indigenous ²	1	1	1	1	3
Very remote	Aboriginal and Torres Strait Islander	0	1	1	5	0
	Non-Indigenous ²	0	3	2	1	3
Total	Aboriginal and Torres Strait Islander	3	4	4	4	6
	Non-Indigenous²	5	5	5	5	6

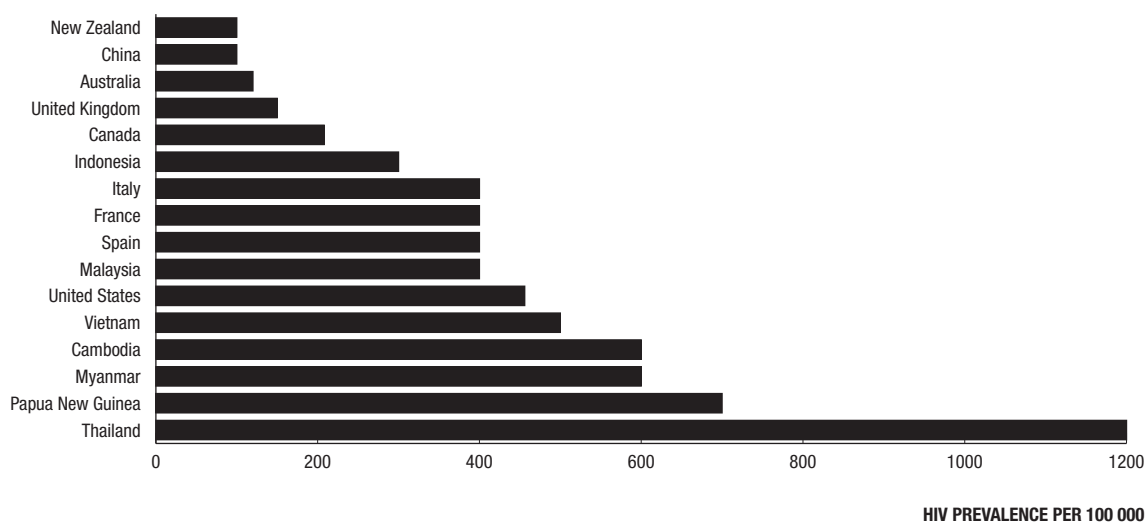
1 Rate per 100 000 population. Population estimates from 2011 Census of Population and Housing (Australian Bureau of Statistics).

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

Source: National Notifiable Diseases Surveillance System

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 a relatively high 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 27 and Table 5).

Figure 27 HIV prevalence in selected countries



Global comparisons

Table 5 Estimated HIV prevalence in selected countries

Country	HIV prevalence	
	2012 ¹	Rate ²
Africa		
Mauritius ³	7 400	1 000
Somalia ³	30 000	700
South Africa ³	5100 000	17 300
Sudan South ³	130 000	3 100
Zambia ³	800 000	12 500
Zimbabwe ³	1000 000	14 900
Asia Pacific		
Australia	25 708	120
Cambodia ³	56 000	600
China ³	771 000	<100
Indonesia ³	370 000	300
Japan ³	7 900	<100
Malaysia ³	80 000	400
Myanmar ³	210 000	600
New Zealand ³	2 600	100
Papua New Guinea ³	24 000	700
Philippines ³	19 000	<100
Republic of Korea ³	15 000	<100
Thailand ³	480 000	1 200
Vietnam ³	240 000	500
Europe		
France ³	160 000	400
Germany ³	73 000	200
Italy ³	150 000	400
Spain ³	150 000	400
United Kingdom ⁴	96 000	150
North America		
Canada ³	71 300	208
United States ⁵	1 148 200	456

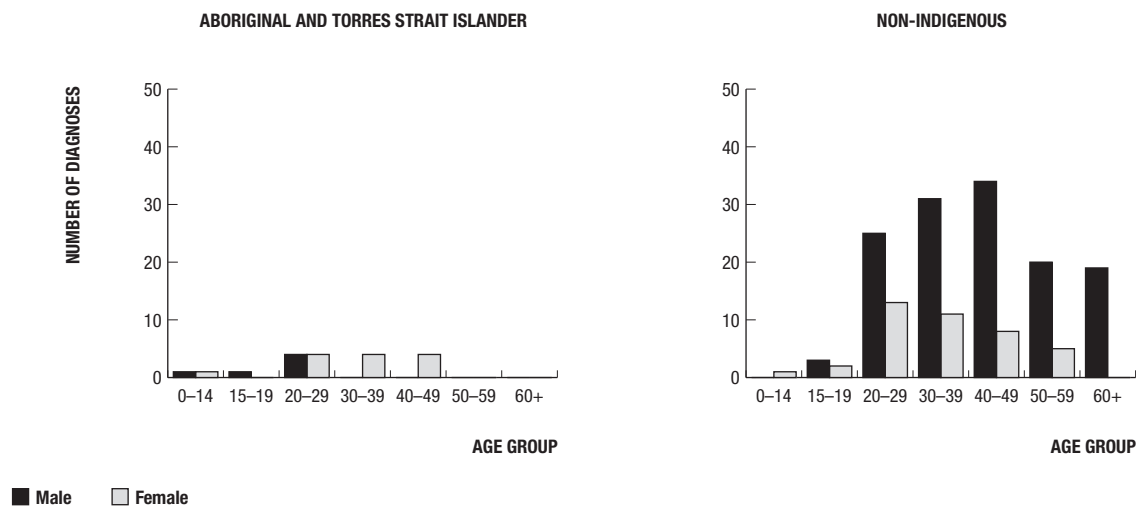
- 1 Estimated number of people living with HIV/AIDS.
- 2 Rate per 100 000 population.
- 3 Estimated HIV prevalence in people aged 15 – 49 years in 2011.
- 4 Estimated HIV prevalence in 2011.
- 5 Estimated HIV prevalence for people aged ≥13 in 2009.

Viral hepatitis

- There were a total of 193 notifications of newly acquired hepatitis B infection in Australia in 2012, 19 (10%) among the Aboriginal and Torres Strait Islander population, 146 (76%) among the non-Indigenous population and in a further 28 (14%) cases, Indigenous status was not reported.
- In 2012, the population notification rate of newly acquired hepatitis B infection for the non-Indigenous and Aboriginal and Torres Strait Islander populations were 1 and 3 per 100 000, respectively.
- In 2012, 84% and 97% of notifications of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander and non-Indigenous populations respectively, were in those aged 20 years and over.
- There were a total of 10 114 notifications of newly diagnosed hepatitis C infection in Australia in 2012. Of these 731 (7%) occurred among the Aboriginal and Torres Strait Islander population, 3 444 (34%) among the non-Indigenous population and in a further 5 939 (59%) notifications Indigenous status was not reported.
- Based on notified cases, hepatitis C transmission continued to occur in Australia predominantly among people with a history of injecting drug use.
- At the end of 2012, an estimated 230 000 people were living with chronic hepatitis C infection including an estimated 58 000 with moderate to severe liver disease.

In 2012, 19 notifications of newly acquired hepatitis B infection were diagnosed in the Aboriginal and Torres Strait Islander population and 146 in the non-Indigenous population (Figure 28).

Figure 28 Number of notifications of newly acquired hepatitis B infection in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group



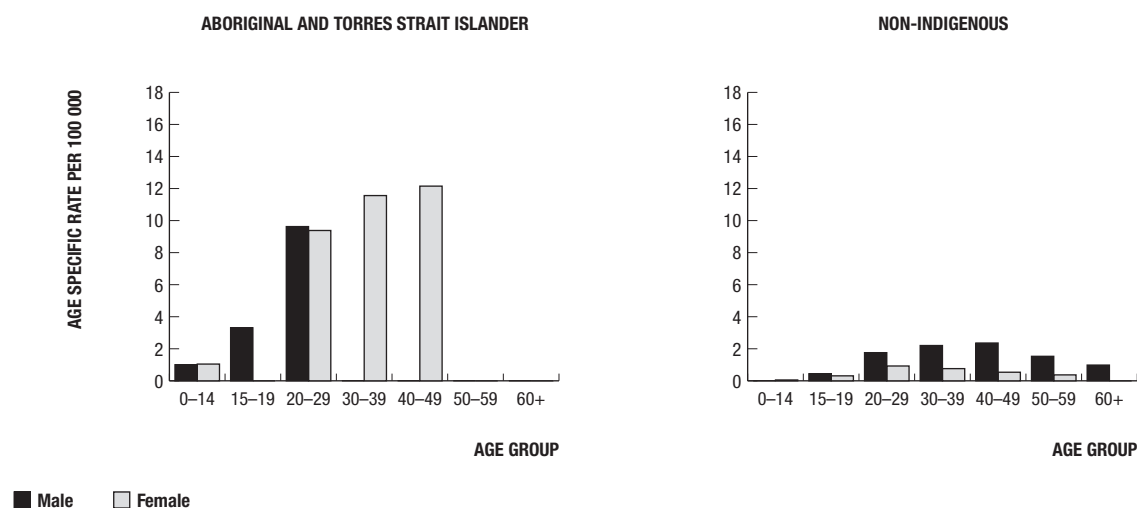
¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

The notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population continues to be higher than in the non-Indigenous population. In 2012, the notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population was 3 times the rate in the non-Indigenous population. In the non-Indigenous population, the notification rate of newly acquired hepatitis B infection remained low in all state/territory health jurisdictions.

In 2012, the majority of notifications of newly acquired hepatitis B infection in both the Aboriginal and Torres Strait Islander (84%) and the non-Indigenous population (96%) occurred in people aged over 20 years. In 2012, the male to female ratio of diagnosis in the Aboriginal and Torres Strait Islander population was 0.4:1 compared with 3.3:1 in the non-Indigenous population (Figure 29).

In 2012, the notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander male and female population was 2 and 12 times higher than the rates in non-Indigenous population, respectively. The notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander female population aged 20 – 29, 30 – 39 and 40 – 49 years was 10, 15 and 23 times higher than the rates in the non-Indigenous female population, respectively.

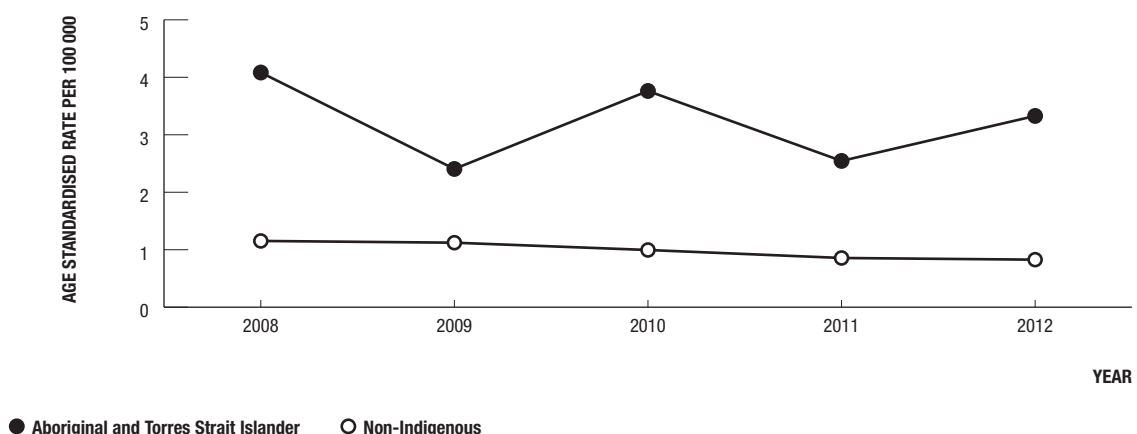
Figure 29 Notification rate of newly acquired hepatitis B infection in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group



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 2008 – 2012 the notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population remained stable at around 3 per 100 000 and remained stable at around 1 per 100 000 in the non-Indigenous population over the same time period (Figure 30).

Figure 30 Notification rate of newly acquired hepatitis B infection by Aboriginal and Torres Strait Islander status¹ and year

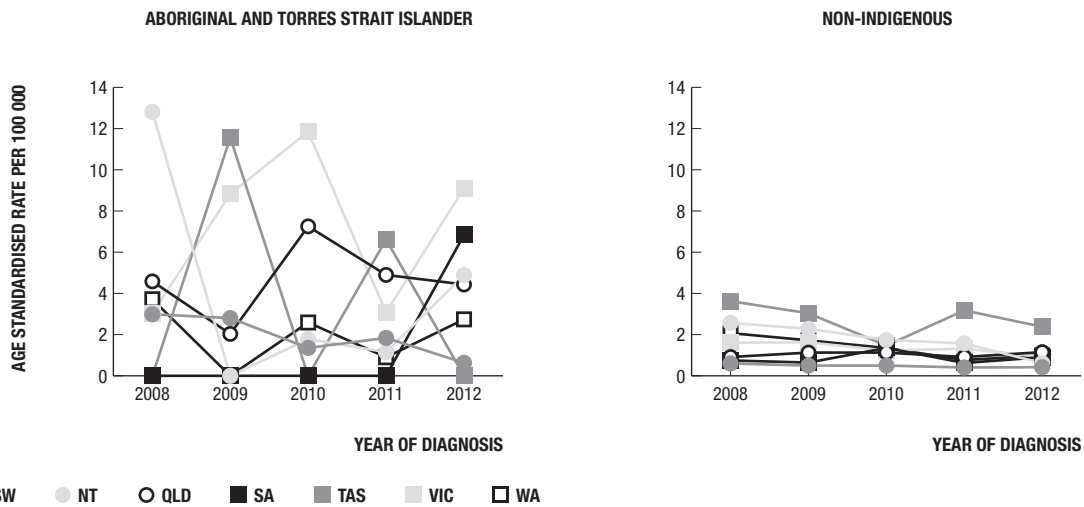


¹ Jurisdictions (NSW, NT, QLD, SA, TAS, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

In 2012, information on Aboriginal and Torres Strait Islander status was reported for more than 50% of notifications of newly acquired hepatitis B infection in New South Wales, the Northern Territory, Queensland, South Australia, Tasmania, Victoria and in Western Australia.

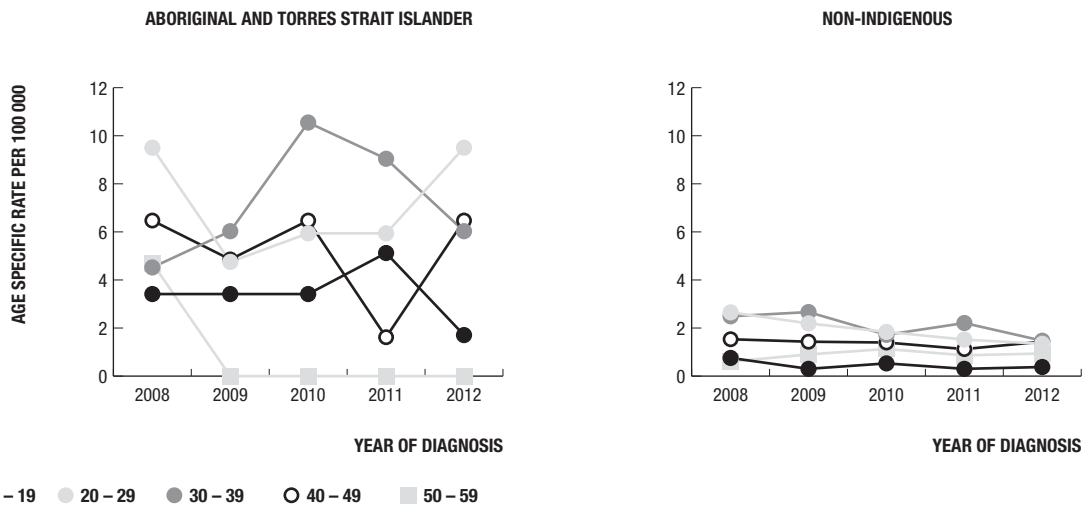
The notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population fluctuated over time in individual jurisdictions (Figure 31) and overall within age groups (Figure 32).

Figure 31 Notification rate of newly acquired hepatitis B infection 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.

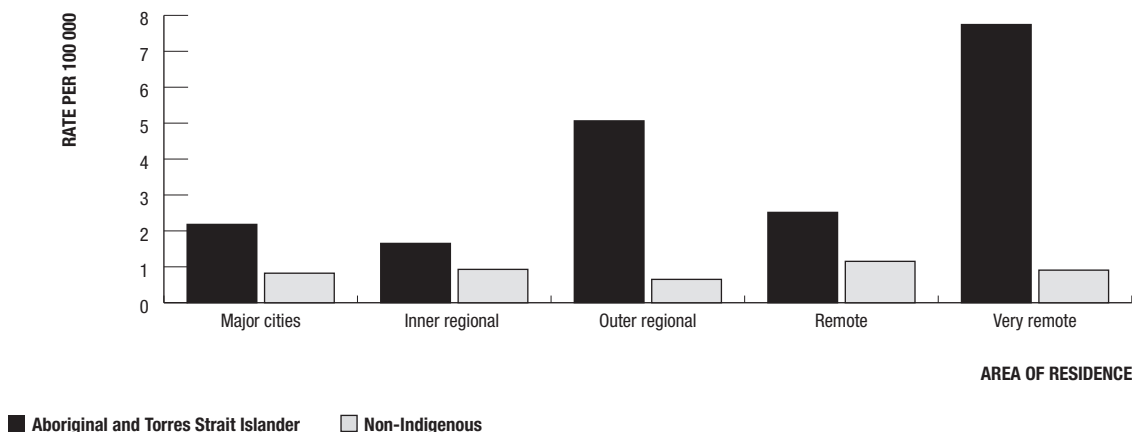
Figure 32 Notification rate of newly acquired hepatitis B infection in selected age groups by Aboriginal and Torres Strait Islander status¹ and year



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

In 2012, the notification rate of newly acquired hepatitis B infection by area of residence was substantially higher in the Aboriginal and Torres Strait Islander population than that in the non-Indigenous population with rates of around 1 in all areas of residence. The notification rate in the Aboriginal and Torres Strait Islander population was highest in very remote areas and lowest in inner regional areas (Figure 33).

Figure 33 Notification rate of newly acquired hepatitis B infection in 2012, by Aboriginal and Torres Strait Islander status¹ and area of residence

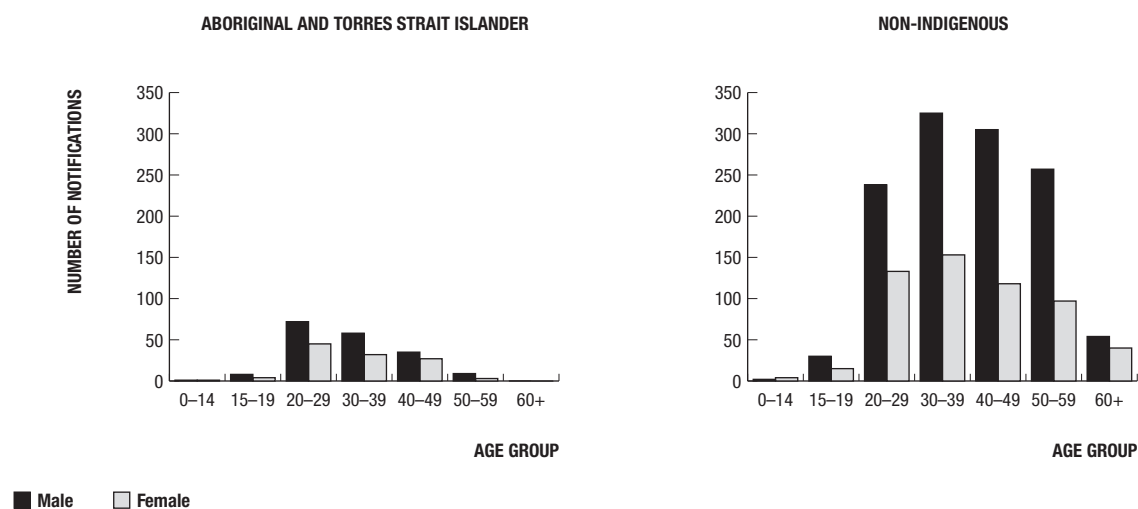


¹ Jurisdictions (NSW, NT, QLD, SA, VIC and WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses.

In 2012, there were 295 notifications of newly diagnosed hepatitis C infection among the Aboriginal and Torres Strait Islander population, representing 14% of all notifications (Figure 34).

Information on Aboriginal and Torres Strait Islander status was reported for more than 50% of notifications of newly diagnosed hepatitis C infection in 2012 in the Northern Territory, South Australia, Tasmania and Western Australia. In these jurisdictions the Aboriginal and Torres Strait Islander population comprised 12%, 14%, 8% and 16% of all newly diagnosed hepatitis C infections in the respective jurisdiction.

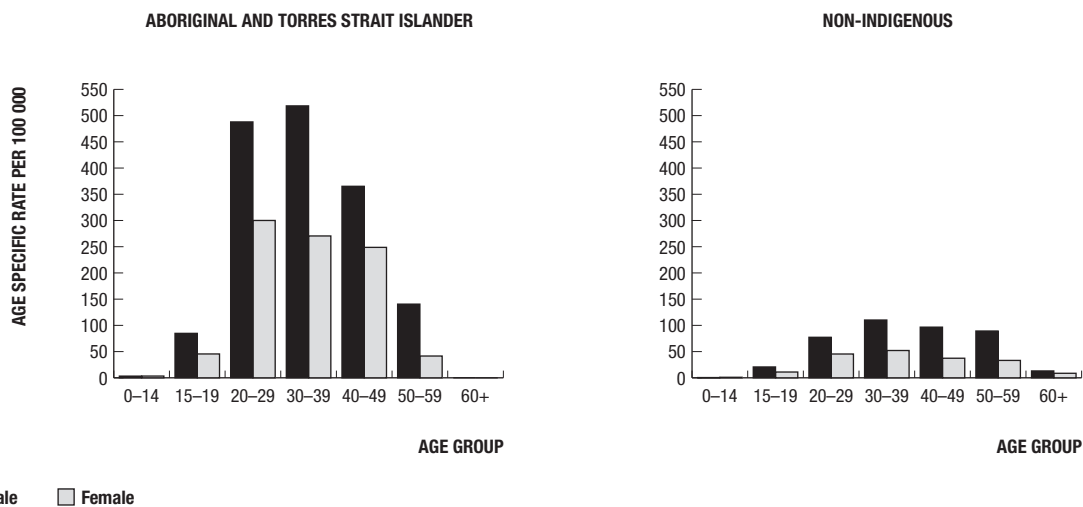
Figure 34 Number of notifications of newly diagnosed hepatitis C infection in 2012, by Aboriginal and Torres Strait Islander status¹, sex and age group



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

In 2012, the notification rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander male population in the age groups 20 – 29 years, 30 – 39 years and 40 – 49 years was 6, 5 and 4 times the rate in the non-Indigenous male population in the same age groups. The notification rate of hepatitis C infection in the Aboriginal and Torres Strait Islander female population was 6, 5 and 6 times the rate in the non-Indigenous female population in the age groups 20 – 29, 30 – 39 and 40 – 49 years (Figure 35).

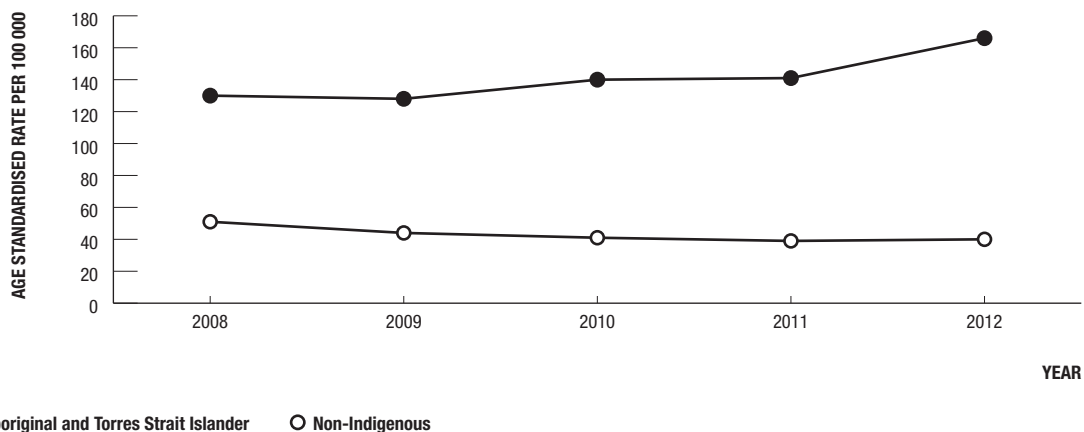
Figure 35 Notification rate of newly diagnosed hepatitis C infection in 2012 by Aboriginal and Torres Strait Islander status¹, sex and age group



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 2008 – 2012, the notification rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population gradually increased from 130 in 2008 to 166 in 2012 whereas the rate in the non-Indigenous population decreased from 51 per 100 000 in 2008 to 40 per 100 000 in 2012 (Figure 36).

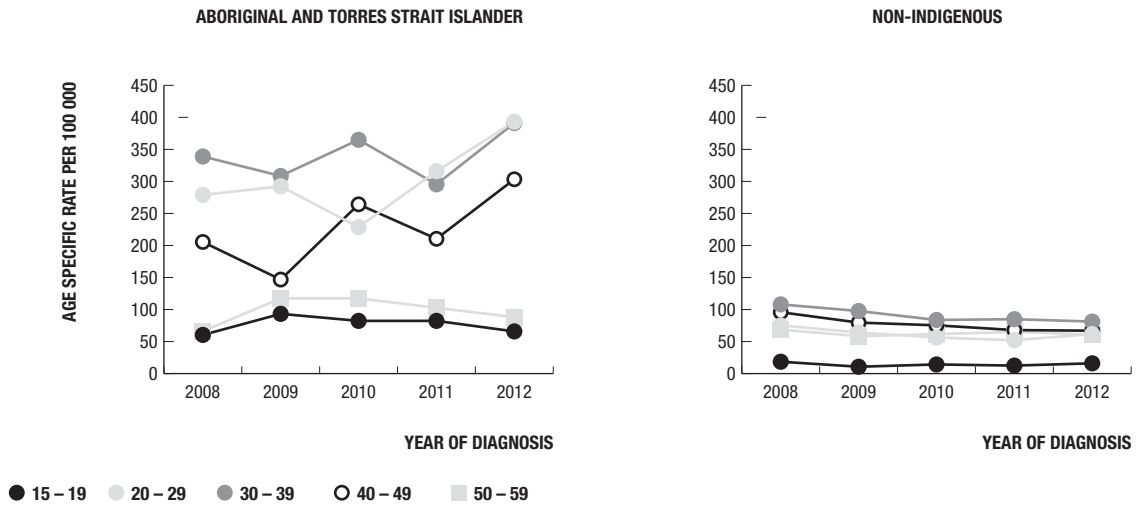
Figure 36 Notification rate of newly diagnosed hepatitis C infection by Aboriginal and Torres Strait Islander status¹ and year



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

In the Aboriginal and Torres Strait Islander population, the notification rates of newly diagnosed hepatitis C infection in the age group 15 – 19 years declined from 93.2 in 2009 to 65.8 per 100 000 in 2012 whereas the rates of hepatitis C diagnosis increased in the age groups 20 – 29, 30 – 39 and 40 – 49 years during the years 2008 – 2012 (Figure 37). In the non-Indigenous population, an increase in the rate of hepatitis C diagnosis occurred in the age groups 15 – 19 years and 20 – 29 years in 2012 whereas in the age groups 30 – 39, 40 – 49 and 50 – 59 years, the rate of hepatitis C diagnosis declined during the years 2008 – 2012.

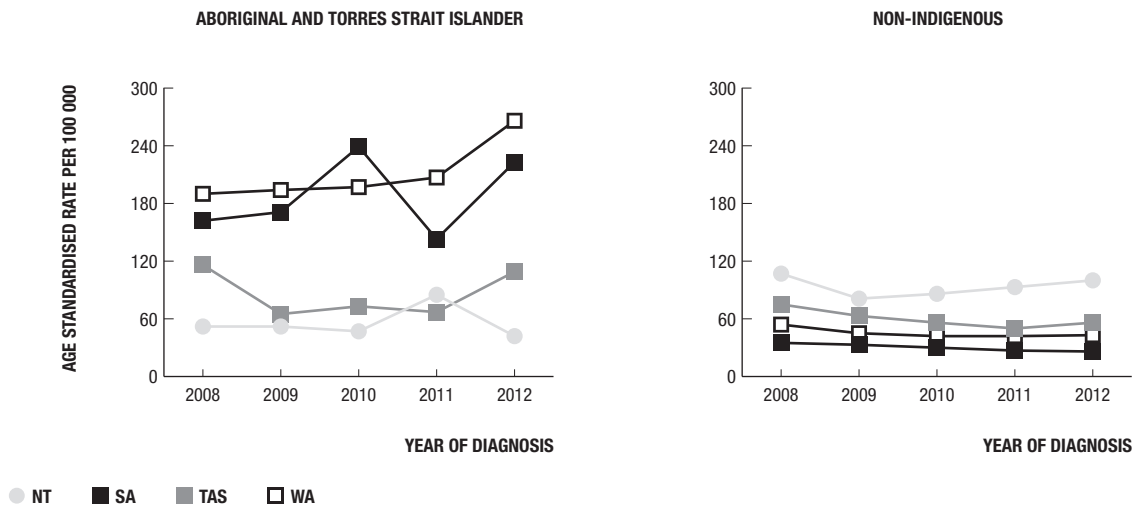
Figure 37 Notification rate of newly diagnosed hepatitis C infection in selected age groups by Aboriginal and Torres Strait Islander status¹ and year



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

From 2008 – 2012, the notification rate of newly diagnosed hepatitis C infection in both the Aboriginal and Torres Strait Islander population and in the non-Indigenous population was relatively stable in state/territory health jurisdictions except Western Australia which had a recent increase in hepatitis C diagnosis in the Aboriginal and Torres Strait Islander population (Figure 38).

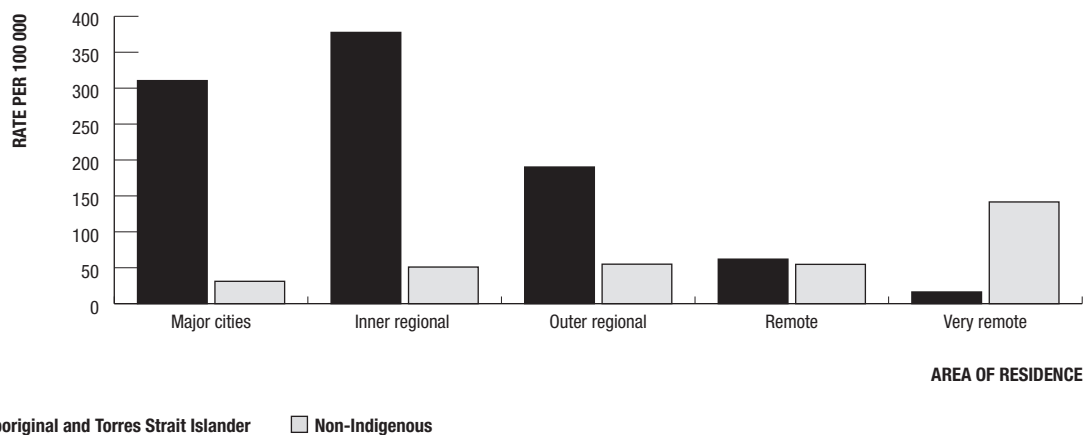
Figure 38 Notification rate of newly diagnosed hepatitis C infection by Aboriginal and Torres Strait Islander status, State/Territory¹ and year



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

In 2012, the notification rate of newly diagnosed hepatitis C infection among the Aboriginal and Torres Strait Islander population in major cities, inner regional and outer regional areas was 10, 7 and 3 times higher than the rate of diagnosis of the non-Indigenous population resident in the same areas. Notification rates of newly diagnosed hepatitis C infection were similar in remote areas and lower in very remote areas among the Aboriginal and Torres Strait Islander population than the non-Indigenous population, respectively (Figure 39).

Figure 39 Notification rate of newly diagnosed hepatitis C infection in 2012, by Aboriginal and Torres Strait Islander status 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.

2012 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 2008 – 2012, 12% 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 2012, HIV prevalence remained low, at less than 1% in both the Aboriginal and Torres Strait Islander population and in the non-Indigenous population.

Methodological notes

1 National surveillance for sexually transmissible infections

1.1 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

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

Information on Aboriginal and Torres Strait Islander status in notifications of chlamydia, gonorrhoea and infectious syphilis diagnoses 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.

1.3 Rate of diagnosis of sexual transmissible infections by area of residence

The rate of diagnosis of sexually transmissible infections in Australia in 2012 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 250 000 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.

2 National surveillance for newly diagnosed HIV infection

2.1 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 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 200 cells/ μ l or higher to less than 350 cells/ μ l. 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 Vandenberg 1993), carried out monitoring of HIV antibody testing.

2.2 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 2003 – 2012, 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 in 99% of diagnoses. 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.

3 Global comparisons

The data in Figure 28 were obtained from the following sources:

- Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data – United States and 6 U.S. dependent areas – 2010. HIV Surveillance Supplemental Report 2012; 17 (No 3, part A)
- Health Protection Agency. HIV in the United Kingdom: 2012 Report: London: Health Protection Services, Colindale. November 2012
- Joint United Nations Programme on HIV/AIDS (UNAIDS). Global report: UNAIDS report on the global AIDS epidemic 2012. UNAIDS, 2012. <http://www.unaids.org>
- Public Health Agency of Canada. Summary: Estimates of HIV prevalence and incidence in Canada, 2011. Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada, 2012. <http://webqa.phac-aspc.gc.ca/aids-sida/publication/survreport/estimat2011-eng.php>

4 National surveillance for viral hepatitis

4.1 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.

4.2 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).

4.3 HIV and hepatitis C seroprevalence among people who inject drugs

All clients attending needle and syringe program (NSP) sites during one week in 2008 (51 sites), 2009 (51 sites), 2010 (52 sites) 2011 (52 sites) and 2012 (52 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 State/Territory health jurisdictions. Further information is available in MacDonald et al (1997 and 2000).

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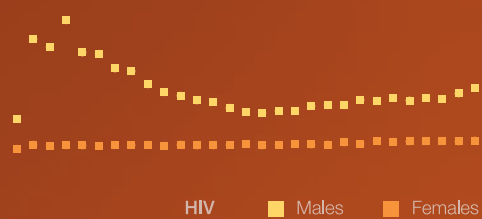
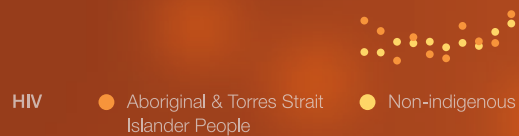
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