

Bloodborne viral and sexually transmissible infections
in Aboriginal and Torres Strait Islander people:
Annual Surveillance Report 2015



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The Kirby Institute for infection and immunity in society
UNSW Australia, Sydney NSW 2052

Telephone: 02 9385 0900 Facsimile: 02 9385 0920 International prefix: 61 2
Email: recept@kirby.unsw.edu.au



Prepared by: Dr Skye McGregor and Dr Hamish McManus

Edited by: Dr Marlene Kong, Associate Professor Rebecca Guy

Other contributors:

Mr Michael Doyle, Associate Professor James Ward, Dr Jenny Iversen, Ms Jane Costello, Ms Megan Tapia

Kirby Institute, UNSW Australia
Sydney, Australia

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

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Preface

This report provides information on the occurrence of bloodborne viruses (BBVS) 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 to minimise the risk of transmission of these infections as well as the personal and social consequences within Aboriginal and Torres Strait Islander communities.

This report is published annually as an accompanying document to the *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report* and is overseen by the National Aboriginal Community Controlled Health Organisation (NACCHO) and the Annual Surveillance Report 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 <http://www.kirby.unsw.edu.au>. Data tables are also available online at <http://www.kirby.unsw.edu.au>.

Unless specifically stated otherwise, all data provided in this report are to the end of 2014, as reported by 31 March 2015. 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 from page 2 onwards, is gratefully acknowledged.



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Annual Surveillance Report 2015 Advisory Committee

- Ms Amy Bright, Australian Government Department of Health, Canberra, ACT
- Ms Helen Tyrrell, Hepatitis Australia, Canberra, ACT
- Ms Anna Roberts and Mr Scott McGill, Australasian Society for HIV Medicine, Sydney, NSW
- Mr Aaron Cogle and Ms Jo Watson, National Association of People with HIV Australia, Sydney, NSW
- Dr Limin Mao, Centre for Social Research in Health, UNSW Australia, Sydney, NSW
- Dr Russell Waddell, Australasian Chapter of Sexual Health Medicine, Sydney, NSW
- Mr Simon Donohoe, Australian Federation of AIDS Organisations, Sydney, NSW
- Associate Professor Benjamin Cowie, WHO Regional Reference Laboratory for Hepatitis B, Victorian Infectious Diseases Reference Laboratory, The Doherty Institute, Melbourne, VIC
- Associate Professor Rebecca Guy (Chair), Professor Basil Donovan, Professor Lisa Maher, Associate Professor David Wilson, Dr Marlene Kong, Dr Iryna Zablotska-Manos, Dr Jenny Iversen, Dr Skye McGregor, Dr Hamish McManus, Ms Jane Costello, The Kirby Institute, UNSW Australia, Sydney, NSW

Collaboration of Australian Needle and Syringe Programs

- Directions ACT, Canberra; ACT
- ACON Hunter, Newcastle; Central Coast NSP Services, Gosford and Long Jetty; First Step Program, Port Kembla Hospital, Warrawong; 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; Redfern Harm Minimisation Program, Redfern; Central Access Service, Kogarah and Sutherland; South Court Primary Care NSP, Nepean; Western Sydney HIV/Hepatitis C Prevention Service, Blacktown, Mt Druitt and Parramatta; NSW
- Northern Territory AIDS and Hepatitis C Council, Alice Springs, Darwin and Palmerston; NT
- Biala Community Alcohol and Drug Services, Brisbane; Cairns ATODS NSP, Cairns; Queensland Injectors Health Network (QuIHN), Brisbane, Gold Coast and Sunshine Coast; Kobi House, Toowoomba; West Moreton Sexual Health Service, Ipswich; Townsville ATODS NSP, Townsville; QLD
- Drug and Alcohol Services South Australia, Adelaide; Hindmarsh Centre, Hindmarsh; Nunkuwarrin Yunti Community Health Centre, Adelaide; Street Link Youth Health Service, Adelaide; South Australia Voice for Intravenous Education (SAVIVE), Keswick; Parks Community Health Service, Adelaide; Port Adelaide Community Health Service, Port Adelaide; Noarlunga Community Health Service, Adelaide; Northern Metropolitan Community Health Service NSP and Shopfront, Salisbury; SA
- Anglicare NSP Service, Hobart and Glenorchy; Clarence Community Health Centre, Clarence; Devonport Community Health Centre, Devonport; Salvation Army Launceston, Launceston; TAS
- Barwon Health Drug and Alcohol Services, Geelong; Health Information Exchange, St Kilda; Health Works, Footscray and Braybrook; Inner Space, Collingwood; North Richmond NSP, North Richmond; Southern Hepatitis/HIV/AIDS Resource and Prevention Service (SHARPS), Melbourne; VIC.
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- St Vincent's Centre for Applied Medical Research (AMR) and NSW State Reference Laboratory for HIV at St Vincent's Hospital, Sydney; NSW

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- Alexander Maconochie Centre, ACT Corrections Health, Canberra, ACT
- Justice Health and Forensic Mental Health Network, Matraville; Cessnock Correctional Centre, Cessnock; Metropolitan Remand and Reception Centre, Silverwater; Parklea Correctional Centre, Parklea; Silverwater Women's Correctional Centre, Silverwater; South Coast Correctional Centre, Nowra; Tamworth Correctional Centre, Tamworth; NSW
- Department of Correctional Services NT, Berrimah; NT Remote Health, Darwin; Darwin Correctional Centre, Berrimah; NT
- Prison Health Services, West Moreton Hospital and Health Service, Ipswich, Boonah, Esk and Gatton; Townsville Hospital and Health Service Services, Townsville; Central Queensland Hospital and Health Service; Cairns & Hinterland Hospital and Health Service; Arthur Gorrie Correctional Centre, Wacol; Brisbane Correctional Centre, Brisbane; Lotus Glenn Correctional Centre, Mareeba; QLD
- SA Prison Health Service, Adelaide; Adelaide Remand Centre, Adelaide; Adelaide Women's Prison, Adelaide; City Watch House, Adelaide; SA
- Tasmania Correctional Primary Health Services, Department of Health and Human Services, Tasmanian Government, Hobart; Hobart Reception Prison, Hobart; Launceston Reception Prison, Launceston; Risdon Prison Complex, Risdon Vale; TAS
- Justice Health Victoria, Melbourne; Dame Phyllis Frost Centre, Ravenhall; Melbourne Assessment Prison, West Melbourne; VIC
- Department of Corrective Services, Perth; Bandyup Women's Prison, Middle Swan; Hakea Prison, Canning Vale; Greenough Regional Prison, Narngulu; WA

Gonorrhoea Surveillance Working Group

- Mr John Bates, Department of Health Queensland Government, Brisbane, QLD
- Ms Amy Bright, Australian Government Department of Health, Canberra, ACT
- Dr Marcus Chen, Melbourne Sexual Health Centre, Melbourne, VIC
- Professor Christopher Fairley, Melbourne Sexual Health Centre, Melbourne, VIC
- Mr Kevin Freeman, Royal Darwin Hospital, Darwin, NT
- Dr Manoji Gunathilake, Northern Territory CDC, Darwin, NT
- Ms Nasra Higgins, Victorian Department of Health and Human Services, Melbourne, VIC
- Scientia Professor John Kaldor, Professor Basil Donovan, Associate Professor Rebecca Guy, Dr Marlene Kong, Dr Skye McGregor, Ms Dina Saulo, The Kirby Institute, UNSW Australia, Sydney, NSW
- Professor Monica Lahra, Division of Microbiology and WHO Collaborating Centre for STD, The Prince of Wales Hospital, Sydney, NSW
- Associate Professor Stephen Lambert, Department of Health Queensland Government, Brisbane, QLD
- Clinical Associate Professor Lewis Marshall, Fremantle Hospital, Fremantle, WA
- Ms Belinda McEwan, Royal Hobart Hospital, Hobart, TAS
- Ms Rhonda Owen, Australian Government Department of Health, Canberra, ACT
- Mrs April Roberts-Witteveen, Australian Capital Territory CDNA, Canberra, ACT
- Dr Nathan Ryder, Hunter New England Local Health District, Newcastle, NSW
- Dr Christine Selvey, Communicable Diseases Branch, Health Protection NSW, Sydney, NSW
- Ms Nicola Stephens, Victorian Department of Health and Human Services, Melbourne, VIC
- Ms Janet Strachan, University of Melbourne, Melbourne, VIC
- Mr Jiunn-Yih Su, Northern Territory CDC, Darwin, NT
- Dr Russell Waddell, Communicable Disease Control Branch, SA Health, Government of South Australia, Adelaide, SA
- Associate Professor David Whaley, Queensland Paediatric Infectious Diseases Laboratory, Royal Children's Hospital, Brisbane, QLD
- Dr James Wood, School of Public Health and Community Medicine, UNSW Australia, Sydney, NSW

National Organisations

- Australasian Sexual Health Alliance, Sydney, NSW
- Australasian Society for HIV Medicine, Sydney, NSW
- Australasian Society for Infectious Diseases, Melbourne, VIC
- Australian Federation of AIDS Organisations, Sydney, NSW
- Australian Government Department of Health, Canberra, ACT
- Australian Injecting and Illicit Drug Users League, Canberra, ACT
- Australian Institute of Health and Welfare, Canberra, ACT
- Australian Paediatric Surveillance Unit, Westmead, NSW
- Australian Red Cross Blood Service, Melbourne, VIC
- Centre for Social Research in Health, UNSW Australia, Sydney, NSW
- Communicable Diseases Network Australia, Canberra, ACT
- Hepatitis Australia, Canberra, ACT
- National Aboriginal Community Controlled Health Organisation, Canberra, ACT
- National Association of People with HIV Australia, Sydney, NSW
- National Bloodborne Virus and Sexually Transmissible Infections Surveillance Subcommittee (NBBVSTI) of the Communicable Diseases Network of Australia (CDNA)
- National Serology Reference Laboratory, Australia, Fitzroy, VIC
- Scarlet Alliance, Australian Sex Workers Association, Sydney, NSW

State/Territory Health Departments

- Communicable Disease Control Section, Health Protection Service, ACT Government, Canberra, ACT
- Communicable Diseases Branch, Health Protection NSW, NSW Health, NSW Government, North Sydney, NSW
- Sexual Health and Blood Borne Virus Unit, Centre for Disease Control, Northern Territory Department of Health, Northern Territory Government, Darwin, NT
- Communicable Diseases Unit, Queensland Department of Health, Queensland Government, Brisbane, QLD
- STI and BBV Section, SA Health Communicable Disease Control Branch, SA Health, Government of South Australia, Adelaide, SA
- Department of Health and Human Services, Tasmanian Government, Hobart, TAS
- Communicable Disease Epidemiology and Surveillance, Health Protection Branch, Department of Health and Human Services Victoria, State Government of Victoria, Melbourne, VIC; Macfarlane Burnet Institute for Medical Research and Public Health Limited, Prahran, VIC; WHO Regional Reference Laboratory for Hepatitis B, Victorian Infectious Diseases Reference Laboratory, The Doherty Institute, Melbourne, VIC
- Communicable Disease Control Directorate, WA Department of Health, Government of Western Australia, Perth, WA

National Aboriginal Community Controlled Health Organisation:

- Mr Mark Saunders



Medical and epidemiological terms

Chlamydia: A sexually transmissible infection caused by the bacterium *Chlamydia trachomatis*. The infection is asymptomatic in about 80% of cases. In those with symptoms, the infection causes inflammation of the urethra, causing some pain and penile discharge, and in females the main symptoms are intermenstrual bleeding and dysuria. Complications of infection are particularly serious for females and can include pelvic inflammatory disease, ectopic pregnancy and infertility. Chlamydia is fully curable by a single dose of antibiotics.

Donovanosis: A sexually transmissible infection caused by a bacterium (*Klebsiella granulomatis*). The most common symptom is the presence of one or more painless ulcer/lesion in the genital, or anal regions. The ulcer/lesions can progress and become complicated by other bacterial infections if untreated, ultimately resulting in erosion to the affected part of the body. 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 bacterium (*Neisseria gonorrhoea*). 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 will eventually develop symptoms. Gonorrhoea can be effectively treated with antibiotics.

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

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. If untreated, HIV infection can progress to Acquired Immune Deficiency Syndrome (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 bacterium (*Treponema pallidum*). Infectious syphilis is infection of less than two years duration. The main symptoms include a painless lesion/ulcer at the site of infection within the first few weeks of infection, followed by other symptoms (e.g. rash) a couple of months later. Often symptoms are not detected. In the absence of treatment, there will then be a period of several years without any symptoms, with a chance of a range of complications over decades that can involve the skin, bone, the central nervous system and the cardiovascular system. Infectious syphilis is fully curable with a single injection of long acting penicillin.

For more information on these infections, see the National Management Guidelines for Sexually Transmitted Infections 7th Edition.

Age specific rate: The number of cases occurring in a specified age group per 100 000 population of the specified age group:

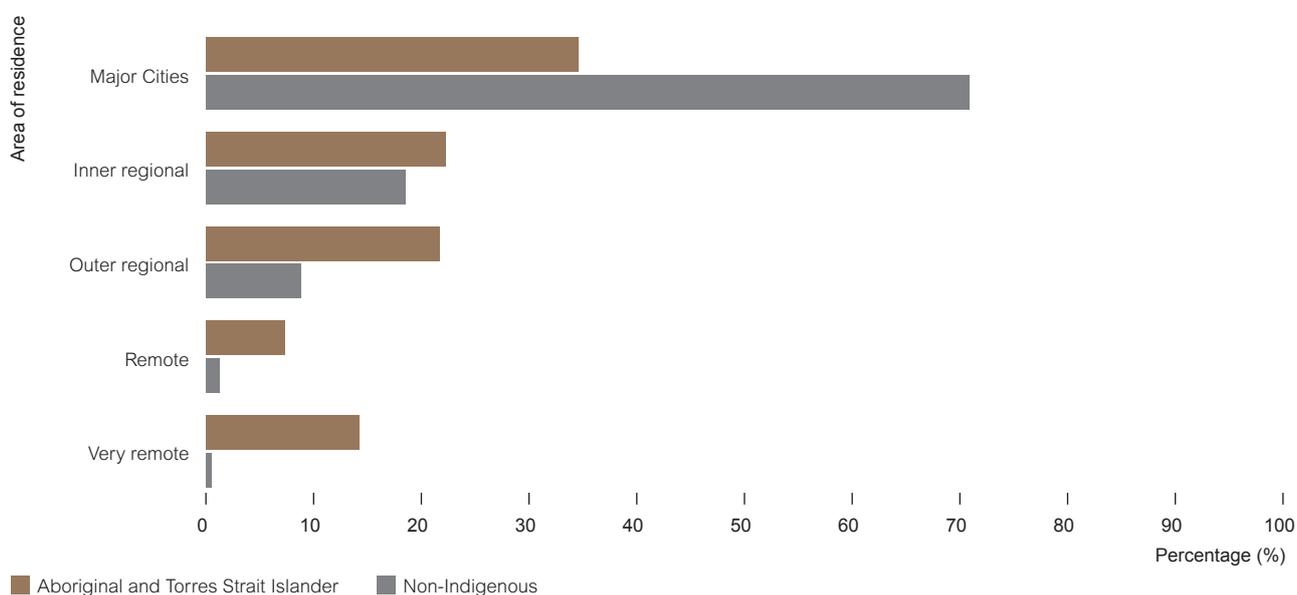
Example: Age specific notification rate of diagnosis of gonorrhoea among males aged 20 – 29 years

$$\frac{\text{Number of gonorrhoea cases among males aged 20–29 years}}{\text{Number of males in the population aged 20–29 years}} \times 100\,000$$

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. According to the latest census, 21.5% of the Aboriginal and Torres Strait Islander population lived in remote and very remote areas, 43.9% in inner and outer regional areas, and 34.6% in major cities (Figure 1); compared with 1.8%, 27.4% and 70.9% of the non-Indigenous population respectively (Figure 1) (See Methodological Notes for further information).

Figure 1 Area of residence, 2014, by Aboriginal and Torres Strait Islander status



Source: Australian Bureau of Statistics 2011

Completeness of data on Aboriginal and Torres Strait Islander status

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.

In 2014, all jurisdictions reported Aboriginal and Torres Strait Islander status for greater than 50% of diagnoses of HIV, infectious syphilis, and newly acquired hepatitis B. However, Aboriginal and Torres Strait Islander status was reported for less than 50% of diagnoses in the following jurisdictions (Figure 2, 3):

- Chlamydia: Australian Capital Territory, New South Wales, Tasmania and Victoria
- Newly diagnosed hepatitis B: New South Wales, Victoria and Queensland
- Newly diagnosed hepatitis C: New South Wales, Victoria and Queensland.
- Newly acquired hepatitis C: Queensland
- Gonorrhoea: New South Wales

Time trends in diagnoses of specific infections by jurisdiction were included in the report 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. Therefore there may be jurisdictions who met the 50% threshold in 2014 but not in other years, and thus their data were not included in this report unless otherwise specified (Figure 2).

Figure 2 Reporting of Aboriginal and Torres Strait Islander status at notification of selected sexually transmissible infections, 2014, by State/Territory

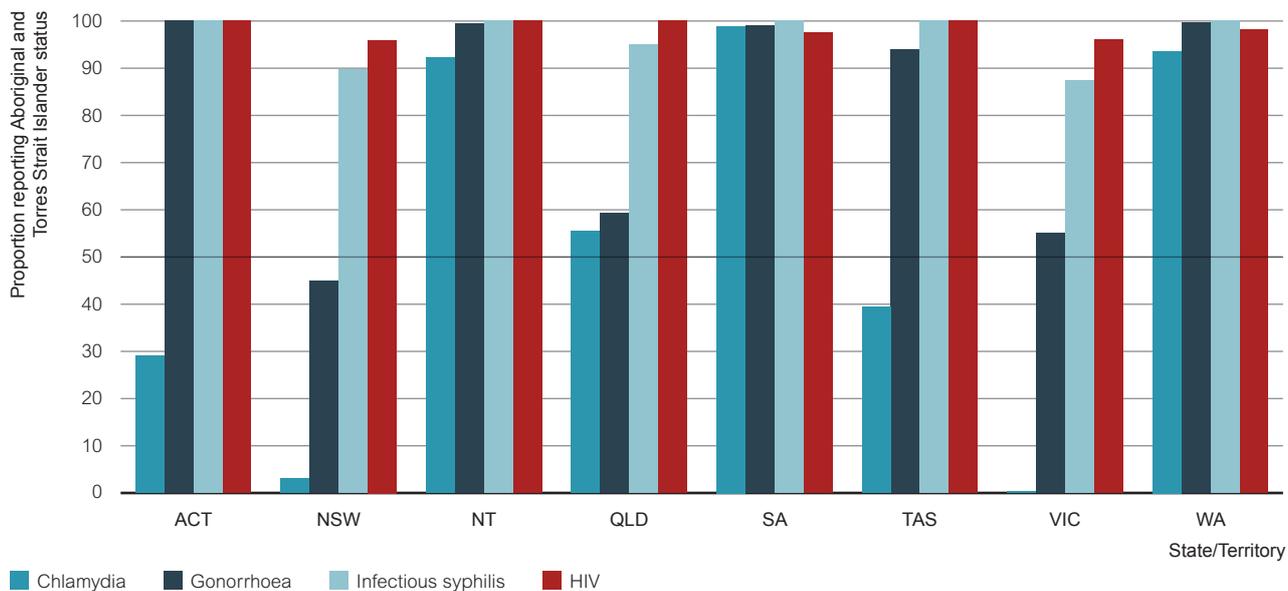
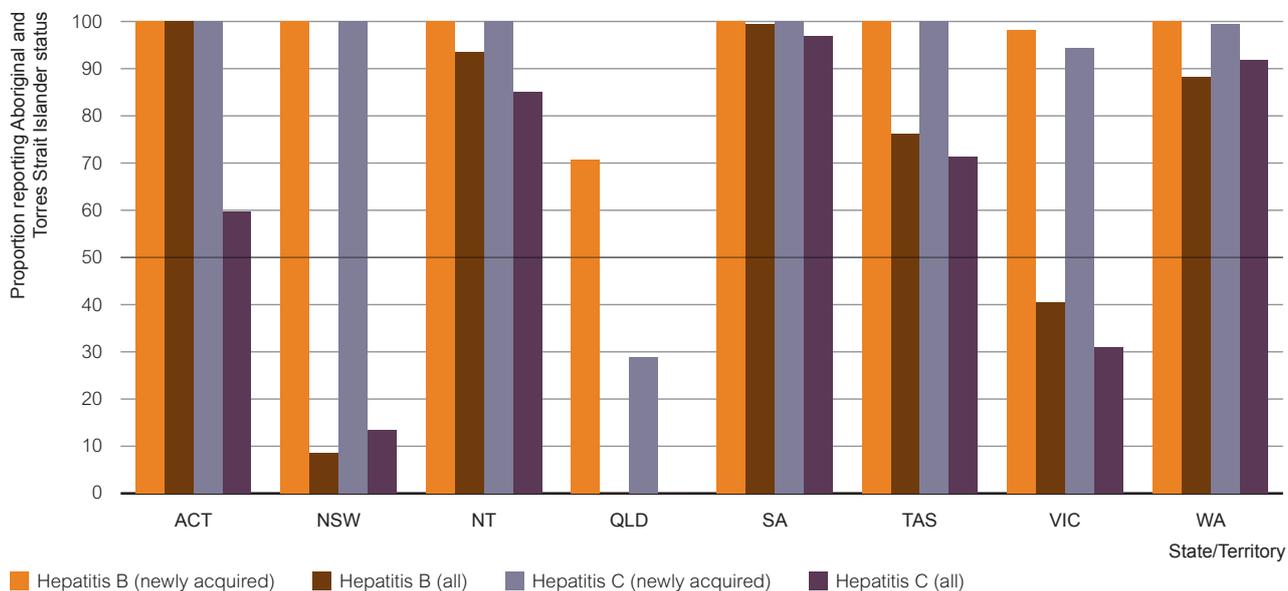


Figure 3 Reporting of Aboriginal and Torres Strait Islander status at notification of viral hepatitis diagnosis, 2014, by State/Territory





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Summary

HIV infection

- A total of 1 081 notifications of newly diagnosed HIV infection were reported in 2014 including 33 which were identified as Aboriginal and Torres Strait Islander.
- Between 2012 – 2014, the notification rate of newly diagnosed HIV infection was higher for the Aboriginal and Torres Strait Islander population compared to the non-Indigenous population (5.9 vs. 3.7 per 100 000 in 2014).
- 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.
- In the five-year period 2010 – 2014, a higher proportion of notifications of newly diagnosed HIV infection among the Aboriginal and Torres Strait Islander population were attributed to injecting drug use (16% vs. 3%) and heterosexual sex (20% vs. 13%) and in females (22% vs. 5%), as compared with the non-Indigenous Australian-born population.
- Based on tests for immune function, in 2014 a third (30%) of the new HIV diagnoses among the Aboriginal and Torres Strait Islander population were determined to be late, in that they were in people who were likely to have had the infection for at least 4 years without being tested.
- The higher rate of HIV diagnosis in Aboriginal and Torres Strait Islander peoples in the past five years requires a strengthened focus on prevention in this vulnerable population.

Hepatitis C infection

- A total of 10 621 cases of newly diagnosed hepatitis C infection were reported in Australia in 2014; 877 (8%) occurred among the Aboriginal and Torres Strait Islander population, 3 379 (32%) were among the non-Indigenous population and a further 6 365 (60%) cases for which Indigenous status was not reported.
- The rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population in 2014 was 164 per 100 000, almost 5 times higher than the 35 per 100 000 in the non-Indigenous population.
- In the last five years, there was a 38% increase in the notification rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population (from 119 in 2010 to 164 per 100 000 in 2014), whereas the rate in the non-Indigenous population decreased by 15% (from 41 in 2010 to 35 per 100 000 in 2014).
- The increasing rate of hepatitis C diagnosis among Aboriginal and Torres Strait Islander peoples, possibly relates to higher levels of re-use of injecting equipment in this population.

Hepatitis B infection

- There were a total of 6 635 notifications of newly diagnosed hepatitis B infection in Australia in 2014; of these, 164 (2%) were among the Aboriginal and Torres Strait Islander population, 2 247 (34%) were among the non-Indigenous population and a further 4 224 (64%) notifications for which Indigenous status was not reported.
- In 2014, the notification rate of newly diagnosed hepatitis B infection for the Aboriginal and Torres Strait Islander population was 2 times higher than the non-Indigenous population (50 per 100 000 vs. 23 per 100 000).
- In the period 2010 – 2014, there was a 44% decline in the notification rate of newly diagnosed hepatitis B infection in the Aboriginal and Torres Strait Islander population (from 90 per 100 000 in 2010 to 50 per 100 000 in 2014) suggesting the immunisation programs for hepatitis B are starting to have a benefit.

Sexually transmissible infections

Chlamydia

- Chlamydia continued to be the most frequently reported notifiable condition in Australia in 2014. There were a total of 86 136 notifications in 2014, 6 641 (8%) were among the Aboriginal and Torres Strait Islander population, 25 365 (29%) were among the non-Indigenous population and Indigenous status was not reported for 54 130 (63%) notifications.
- The chlamydia notification rate for the Aboriginal and Torres Strait Islander population of 1 341 per 100 000 in 2014 was 3 times that of the non-Indigenous notification rate at 389 per 100 000 population.
- In 2014, 80% of chlamydia notifications among the Aboriginal and Torres Strait Islander population, and 78% among the non-Indigenous population were in 15-29 year olds.
- The chlamydia notification rate in Australia in the Aboriginal and Torres Strait Islander population has remained relatively stable since 2010, with variation by jurisdiction.
- In major cities, the chlamydia notification rate in the Aboriginal and Torres Strait Islander population was 2 times higher than that among the non-Indigenous population, increasing to 7 times higher in remote areas.
- The higher chlamydia rates in the Aboriginal and Torres Strait Islander population than the non-Indigenous population emphasise the need for higher coverage of testing and treatment in this population.

Gonorrhoea

- There were a total of 15 786 notifications of gonorrhoea in Australia in 2014; 3 584 (23%) were among the Aboriginal and Torres Strait Islander population, 6 915 (44%) among the non-Indigenous population, and Indigenous status was not reported for 5 287 (33%) diagnoses.
- In 2014, the gonorrhoea rate in the Aboriginal and Torres Strait Islander population was 18 times that of the non-Indigenous population (859 vs. 49 per 100 000 population), increasing to 69 times higher in remote areas.
- In 2014, 71% of cases among the Aboriginal and Torres Strait Islander population were diagnosed among people in the age group 15 – 29 years compared with 56% in the non-Indigenous population.
- Since 2011, the gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population has declined by 18% in both the 15 – 19 age group and in the 20 – 29 year age group.
- In Aboriginal and Torres Strait Islander peoples, the rate of gonorrhoea diagnosis among males and females is roughly equal, indicating predominantly heterosexual transmission.
- In contrast, diagnoses in non-Indigenous people are predominantly in men, in urban settings, suggesting that transmission is primarily related to sex between men.

Infectious syphilis

- There were a total of 1 999 infectious syphilis notifications nationally in 2014, with 235 (12%) among the Aboriginal and Torres Strait Islander population, 1 588 (79%) among the non-Indigenous population and a further 176 (9%) cases for which Indigenous status was not reported.
- In 2014, the infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population was 4 times higher than the non-Indigenous population (32 vs. 8 per 100 000 population) increasing to 300 times higher in remote areas.
- Rates of infectious syphilis notifications among the Aboriginal and Torres Strait Islander population increased in 15 – 19 year olds in 2011 (from 34 per 100 000 in 2010 to 95 per 100 000 in 2011), due to an outbreak in the northern areas of Queensland, the Northern Territory and Western Australia, and was 99 per 100 000 in 2014.
- In Aboriginal and Torres Strait Islander peoples, the rate among males and females is roughly equally, indicating predominantly heterosexual transmission.
- In contrast, diagnoses in non-Indigenous people are predominantly in men, in urban settings, suggesting that transmission is primarily related to sex between men.
- Notifications of congenital syphilis in Aboriginal and Torres Strait Islander peoples declined from 7 in 2005 to 1 in 2009, and then returned to 5 in 2014.
- The resurgence of infection in remote communities after years of declining rates, bringing with it cases of congenital syphilis, emphasises the need for testing and treatment in this population, particularly in antenatal settings.

Donovanosis

- Donovanosis, once a regularly diagnosed sexually transmissible infection among remote Aboriginal populations, is now close to elimination
- Since 2007 there have been fewer than 3 notifications of donovanosis per year nationally, with zero in 2011, 1 in 2012, zero in 2013 and 1 in 2014.

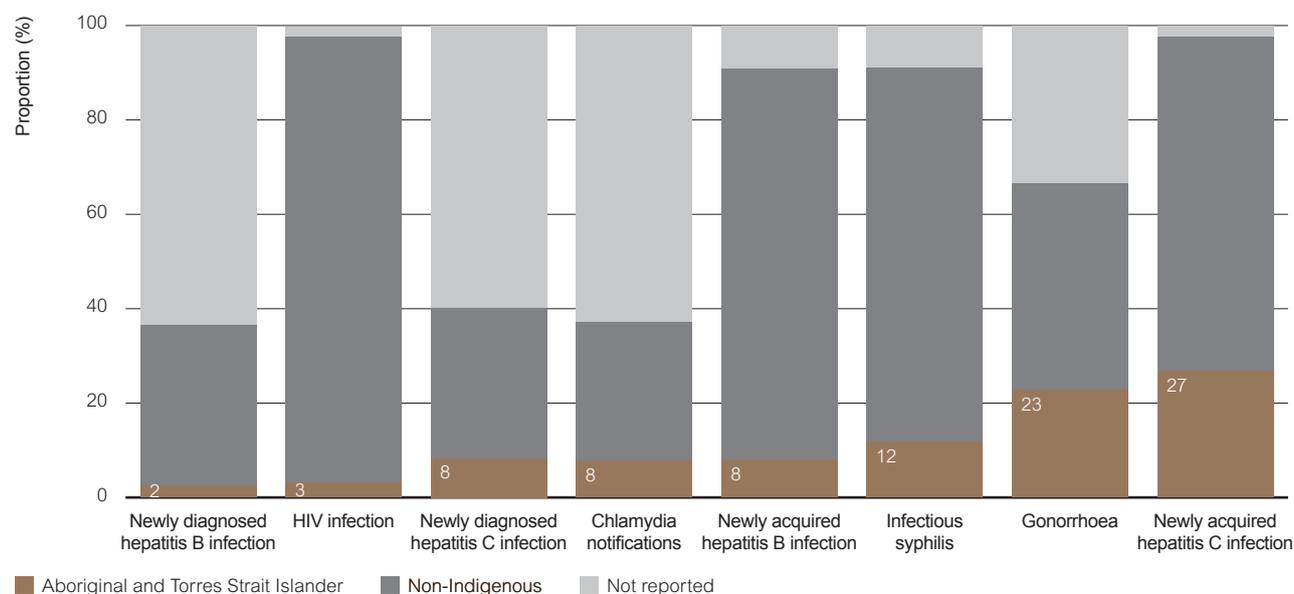
Table 1 Aboriginal and Torres Strait Islander population in Australia, 2014, by State/Territory

State/Territory	Estimated resident population
Australian Capital Territory	6 707
New South Wales	220 902
Northern Territory	72 251
Queensland	203 045
South Australia	39 800
Tasmania	25 845
Victoria	50 983
Western Australia	93 778
Total	713 589

Source: Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 2011 – 2026

Aboriginal and Torres Strait Islander peoples make up 3% of the total Australian population, yet accounted for a disproportionate level (3 – 27%) of all sexually transmissible infections and bloodborne viruses diagnoses in 2014. (Figure 4). For many infections this proportion would be a lower limit, due to the incompleteness of reporting of Aboriginal and Torres Strait Islander status (see Figures 2,3 and 4).

Figure 4 Proportion of all diagnoses by Aboriginal and Torres Strait Islander status, 2014



Source: Australian National Notifiable Disease Surveillance System



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Main Findings

HIV infection

- A total of 1 081 notifications of newly diagnosed HIV infection were reported in 2014 including 33 which were identified as Aboriginal and Torres Strait Islander.
- Between 2012 – 2014, the notification rate of newly diagnosed HIV infection was higher for the Aboriginal and Torres Strait Islander population compared to the non-Indigenous population (5.9 vs. 3.7 per 100 000 in 2014).
- 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.
- In the five-year period 2010 – 2014, a higher proportion of notifications of newly diagnosed HIV infection among the Aboriginal and Torres Strait Islander population were attributed to injecting drug use (16% vs. 3%) and heterosexual sex (20% vs. 13%) and in females (22% vs. 5%), as compared with the non-Indigenous Australian-born population.
- Based on tests for immune function, a third (30%) of the new HIV diagnoses among the Aboriginal and Torres Strait Islander population were determined to be late, in that they were in people who had their infection for at least 4 years without being tested.
- In 2014 HIV prevalence in Aboriginal and Torres Strait Islander peoples was similar to the Australian born non-Indigenous population (0.11 vs 0.13%).
- The higher rate of HIV diagnosis in Aboriginal and Torres Strait Islander peoples in the past five years requires a strengthened focus on prevention in this vulnerable population.

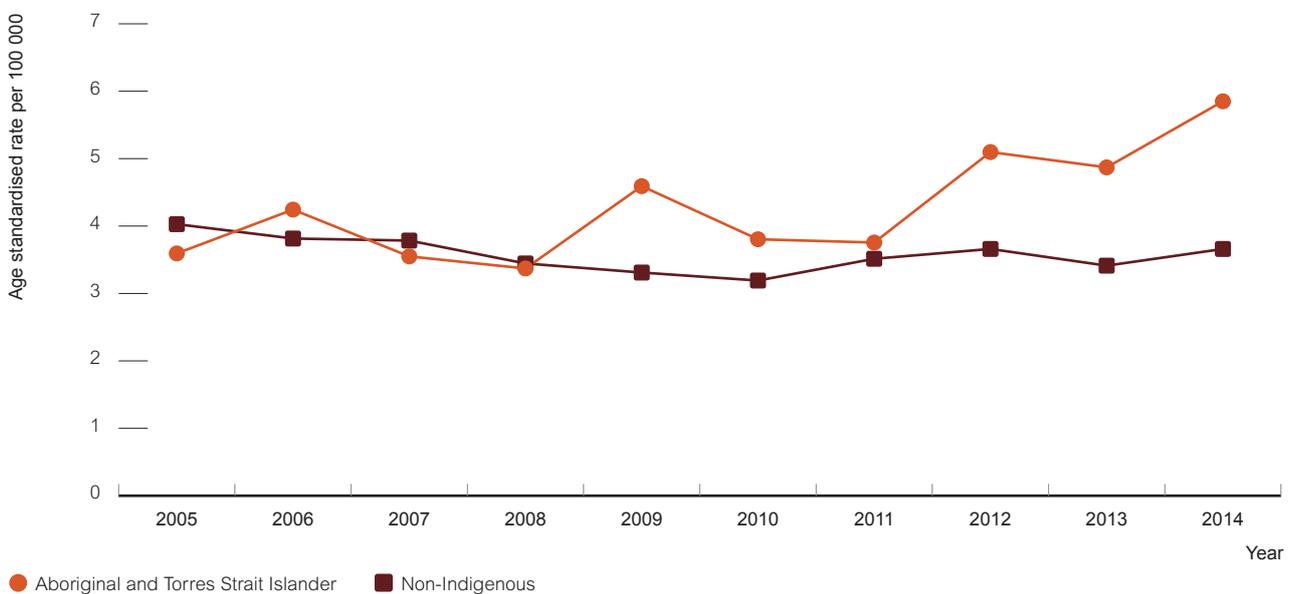
New diagnoses

All jurisdictions have high completeness rates for Aboriginal and Torres Strait Islander status in HIV notifications and thus data from all jurisdictions are included.

In 2014, of the 1 081 notifications of newly diagnosed HIV infections, 33 were identified in the Aboriginal and Torres Strait Islander population (Table 2).

For the purposes of a longer term trend analysis of HIV diagnosis in the Aboriginal and Torres Strait Islander population we have analysed data for the period 2005 – 2014 and compared this to data for the non-Indigenous Australian-born population.

Figure 5 Newly diagnosed HIV notification rate in the Australian-born population per 100 000, 2005 – 2014, by Aboriginal and Torres Strait Islander status



Source: State and Territory health authorities; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 32380do001_2011

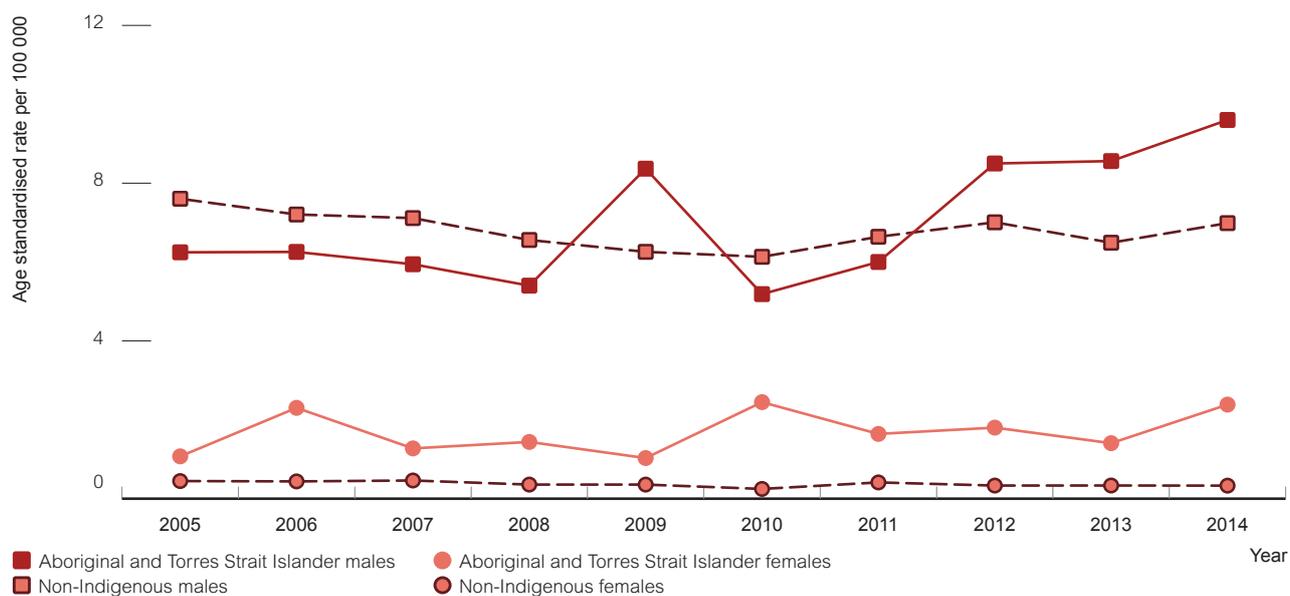
To enable more appropriate comparison between the Aboriginal and Torres Strait Islander and non-Indigenous populations, the rate of infection per 100 000 people was calculated, taking into account the age structures of each population. The rate of newly diagnosed HIV infection in the Aboriginal and Torres Strait Islander population was 3.6 per 100 000 in 2005, remained fairly stable between 2006 and 2011 and then increased in 2012 – 2014, reaching 5.9 per 100 000 in 2014. In the Australian-born non-Indigenous population, the rate remained stable at 4.0 per 100 000 in 2005 and 3.7 per 100 000 in 2014 (Figure 5).

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 in Aboriginal and Torres Strait Islander males fluctuated, with an increase in 2009, a decline in 2010 and an increase in 2012 – 2014 (6.2 in 2005, 8.4 in 2009, 5.2 in 2010 and 9.6 per 100 000 in 2014), and remained stable in Australian-born non-Indigenous males (7.6 in 2005 to 7.0 in 2014 per 100 000) (Figure 6).

The notification rates of newly diagnosed HIV infection among Aboriginal and Torres Strait Islander females fluctuated between 1.1 per 100 000 population in 2005 to 2.4 per 100 000 population in 2014, but were higher than Australian-born non-Indigenous females where the rate of HIV diagnosis remained stable (0.4 in 2005 and 0.3 per 100 000 in 2014) (Figure 6).

Figure 6 Newly diagnosed HIV notification rate in the Australian-born population per 100 000, 2005 – 2014, by Aboriginal and Torres Strait Islander status and sex



Source: State and Territory health authorities; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 32380do001_2011

Of the 242 notifications of newly diagnosed HIV infections among the Aboriginal and Torres Strait Islander population in the ten-year period 2005 – 2014, 79% were diagnosed among males and the median age at diagnosis was 33 years (Table 2).

The best indicator of how long a person has had HIV is the CD4+ cell count per microlitre, which is above 500 in most people without HIV, and declines on average by 50 – 100 per year in people with untreated HIV¹. The proportion of newly detected HIV cases with a late diagnosis, defined by a CD4+ cell count less than 350 cells/ μ l at diagnosis, was 34% over the past ten years (39% in females and 32% in males) (Table 2).

Table 2 Characteristics of cases of newly diagnosed HIV infection in Aboriginal and Torres Strait Islander peoples, 2005 – 2014

Characteristic	Year of HIV diagnosis										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total ¹
Total cases	20	23	19	19	24	22	23	33	26	33	242
Males (%)	85.0	73.9	84.2	79.0	83.3	68.2	73.9	81.8	84.6	75.8	78.9
Median age (years)	33	31	33	36	37	35	33	27	38	34	33
Newly acquired HIV infection n (%) ²	3 (15.0)	7 (30.4)	5 (26.3)	6 (31.6)	7 (29.2)	5 (22.7)	5 (21.7)	10 (30.3)	9 (34.6)	8 (24.4)	65 (26.9)
Late and advanced HIV infection status at HIV diagnosis (%) ^{3,4}											
Late HIV diagnosis	21.4	23.5	40.0	33.3	40.9	25.0	36.4	37.5	42.9	30.0	33.5
Advanced HIV diagnosis	14.3	11.8	13.3	20.0	31.8	10.0	31.8	29.2	28.6	20.0	22.0
State/Territory, n											
Australian Capital Territory	0	0	0	0	0	0	0	0	0	0	0
New South Wales	3	9	8	8	9	7	5	11	8	7	75
Northern Territory	0	0	0	1	0	1	2	2	1	1	8
Queensland	9	6	5	2	8	8	8	14	9	14	83
South Australia	0	0	1	4	2	1	1	1	2	0	12
Tasmania	0	0	0	0	1	0	1	0	1	2	5
Victoria	2	2	3	0	1	2	1	5	5	6	28
Western Australia	6	6	2	4	3	2	5	0	0	3	31
HIV exposure category, %											
Male-to-male sex	35.0	47.8	47.4	47.4	41.7	54.6	60.9	69.7	23.1	39.4	47.1
Male-to-male sex and injecting drug use	25.0	4.4	15.8	5.3	12.5	4.6	0.0	6.1	19.2	9.1	9.9
Injecting drug use ⁵	15.0	21.7	15.8	36.8	8.3	18.2	4.4	6.1	23.1	27.3	17.4
Heterosexual sex	25.0	26.1	21.1	10.5	16.7	13.6	26.1	18.2	30.8	15.2	20.3
Mother with/at risk of HIV infection	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0
Other/undetermined exposure	0.0	0.0	0.0	0.0	20.8	9.1	4.4	0.0	3.9	9.1	5.0

1 Not adjusted for multiple reporting

2 Newly acquired HIV infection was defined as newly diagnosed infection with a negative or indeterminate HIV antibody test result or a diagnosis of primary HIV infection within one year of HIV diagnosis.

3 Late diagnosis, advanced infection and median CD4+ cell count for HIV diagnoses in 2004 only. Total percentage with late HIV diagnosis and advanced HIV infection, and median CD4+ cell count for diagnoses in 2004 – 2014 only.

4 Late HIV diagnosis was defined as newly diagnosed HIV infection with a CD4+ cell count of less than 350 cells/ μ l, and advanced HIV infection as newly diagnosed infection with a CD4+ cell count of less than 200 cells/ μ l

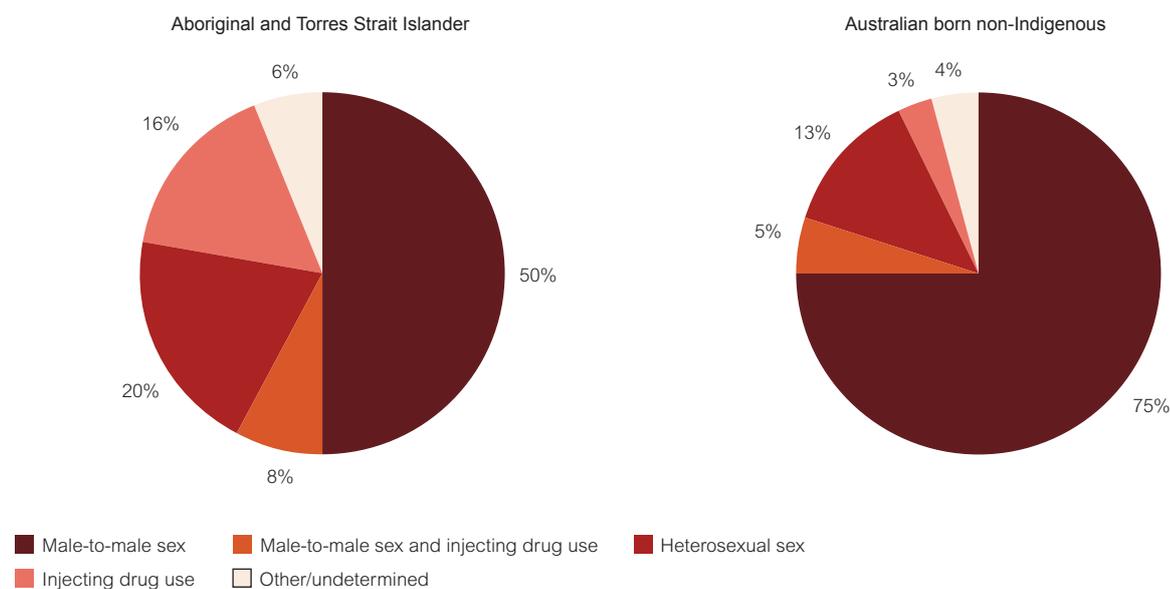
5 Excludes men who have sex with men

Source: State and Territory health departments

In the five-year period 2010 – 2014, a higher proportion of notifications of newly diagnosed HIV infection among the Aboriginal and Torres Strait Islander population were attributed to injecting drug use (16% vs. 3% respectively) and a similar proportion to heterosexual sex (20% vs. 13% respectively) (Figure 7) and in females (22% vs. 5%), as compared with the Australian-born non-Indigenous population.



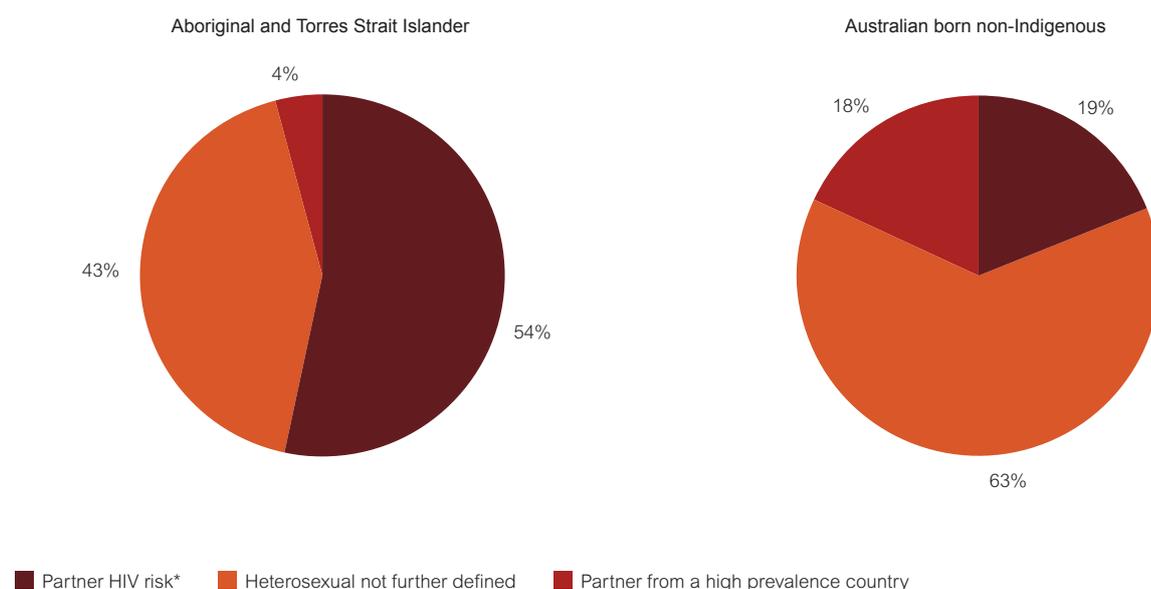
Figure 7 Newly diagnosed HIV infection and HIV exposure category, 2010 – 2014, by Aboriginal and Torres Strait Islander status



Source: State and Territory health authorities

Of the heterosexually acquired HIV cases in the five-year period 2010 – 2014, a higher proportion among the Aboriginal and Torres Strait Islander population were attributed to a partner of high HIV (see Figure 8 for detail) risk compared to the non-Indigenous population (54% vs. 19%, respectively) and a lower proportion to a partner from a high HIV prevalence country (countries recognised by the UNAIDS as having a national HIV prevalence above 1%) (4% vs. 18%) (Figure 8).

Figure 8 Newly diagnosed HIV notifications by heterosexual exposure category, 2010 – 2014, by Aboriginal and Torres Strait Islander status



* Includes heterosexual sex with a person who injects drugs, a bisexual male, someone who received blood/tissue, a person with haemophilia/clotting disorder or someone with HIV whose exposure could not be determined

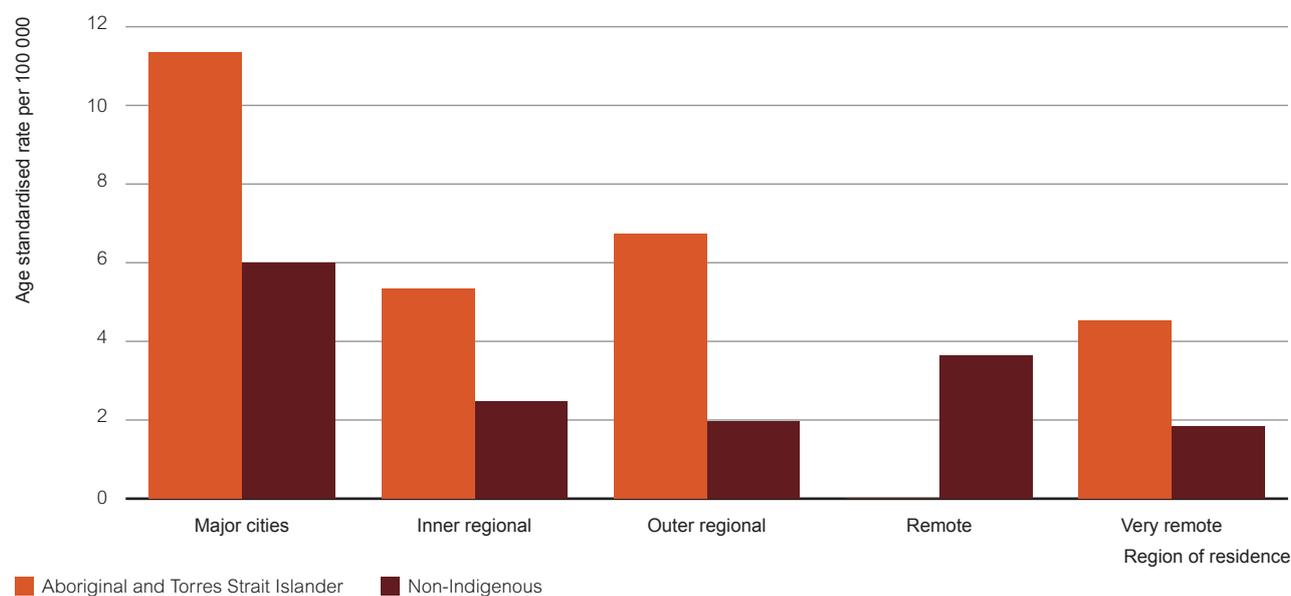
Source: State and Territory health authorities

During the five-year period 2010 – 2014, notifications of newly diagnosed HIV infection among the Aboriginal and Torres Strait Islander population were reported from Queensland (39%), New South Wales (28%), Victoria (15%), Western Australia (7%), the Northern Territory (5%), South Australia (5%) and Tasmania (3%) (Table 2).

In 2014, the notification rate of newly diagnosed HIV infection in the Aboriginal and Torres Strait Islander population was highest among those residing in major cities at 11.4 per 100 000, followed by outer regional areas (6.7 per 100 000) and inner regional areas (5.3 per 100 000), and in each of these areas the rate of newly diagnosed HIV infection was 2 – 3 times higher than in the Australian-born non-Indigenous population (6.0, 2.0 and 2.5 per 100 000, respectively) (Figure 9).

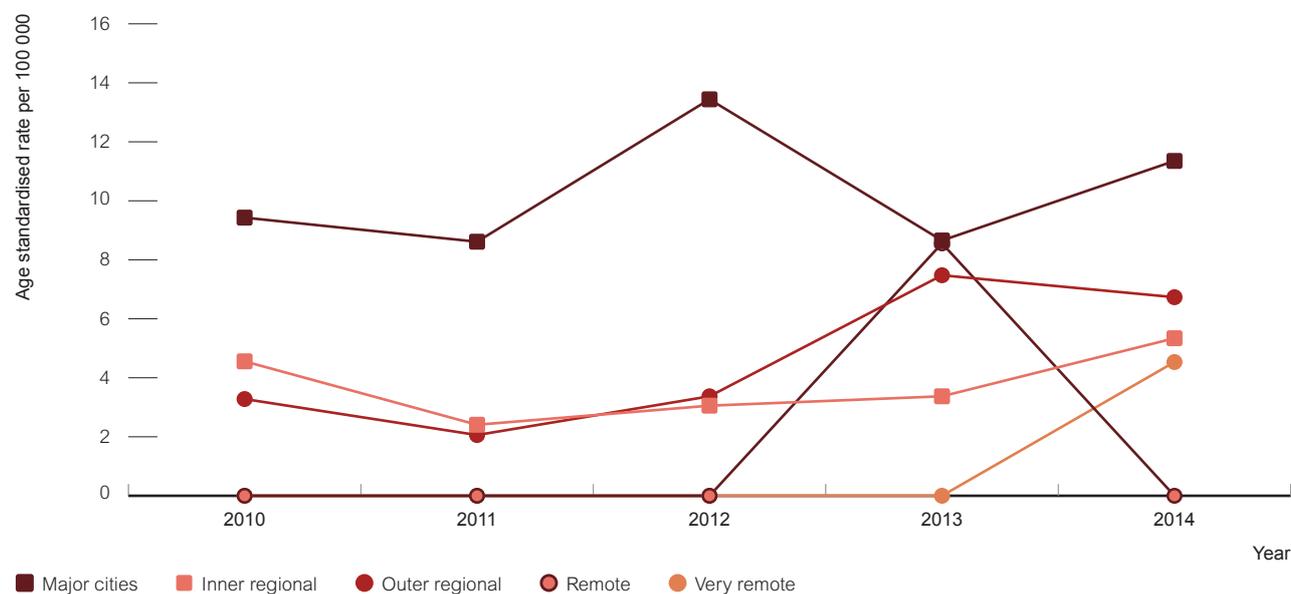
The notification rate of newly diagnosed HIV infection in the Aboriginal and Torres Strait Islander population increased in those residing in outer regional areas from 2012 to 2014; from 3.4 per 100 000 in 2012, to 7.5 in 2013 and 6.7 in 2014 (Figure 10).

Figure 9 Newly diagnosed HIV notification rate in the Australian-born population per 100 000, 2014, by Aboriginal and Torres Strait Islander status and area of residence



Source: State and Territory health authorities

Figure 10 Newly diagnosed HIV notification rate per 100 000 in Aboriginal and Torres Strait Islander peoples, 2010 – 2014, by area of residence



Source: State and Territory health authorities



Of the estimated 27 150 people living with HIV at the end of 2014, 16 140 (range: 14 540 – 18 137) were Australian born non-Indigenous people and 492 (range: 453 – 537) were Aboriginal and Torres Strait Islander peoples. Of the 492 (range: 453 – 537) Aboriginal and Torres Strait Islander peoples living with HIV, 99 (range: 90 – 107) were estimated to be undiagnosed. The prevalence among Aboriginal and Torres Strait Islander peoples was estimated to be 0.11% in 2014, slightly lower than to the prevalence in the Australian born non-Indigenous population of 0.13% (Table 3).

Table 3 Estimated number of Aboriginal and Torres Strait Islander peoples living with HIV and HIV prevalence, 2014, Australia

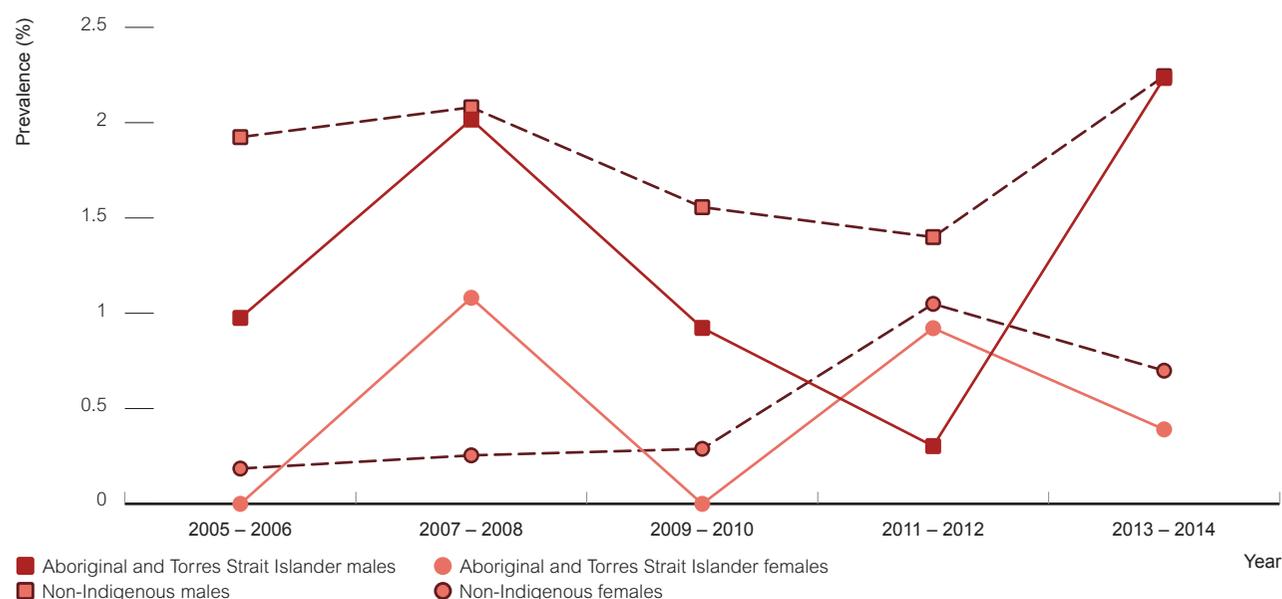
	People living with HIV (range)	Number undiagnosed (range)	HIV prevalence (range)	Population size ≥ 15 years of age
Australian born non-Indigenous	16 140 (14 540 – 18 137)	1 992 (1 148 – 2 870)	0.13% (0.12 – 0.15)	12 402 992 ^{1,2}
Aboriginal and Torres Strait Islander peoples	492 (453 – 537)	99 (90 – 107)	0.11% (0.10 – 0.11)	468 368 ²

1 ABS series 341202

2 ABS series 32380

Periodic surveys have measured the HIV prevalence among sub-populations of Aboriginal and Torres Strait Islander peoples. The National Prison Entrants' Bloodborne Virus Survey found no cases of HIV in the most recent survey. The Australian Needle and Syringe Program Survey of people who inject drugs attending needle and syringe program found each year the prevalence of HIV among Aboriginal and Torres Strait Islander respondents (Figure 11) was ≤2% overall, but higher in males than females.

Figure 11 HIV prevalence in needle and syringe program participants, 2005 – 2014, by Aboriginal and Torres Strait Islander status and sex



Source: Australian Needle and Syringe Program Survey

Testing

According to the first national study assessing knowledge, risk practices and health service use in relation to sexually transmissible infections and bloodborne viruses (Goanna Survey) conducted among young Aboriginal people aged 16 – 29 years in 2011 – 2013, 50% of the participants reported ever having a HIV test, with little variation by area of residence. Of those who had tested, 61% reported it occurred in the last 12 months (Table 4).

Table 4 HIV testing history, Aboriginal and Torres Strait Islander 16 – 29 year olds, by area of residence

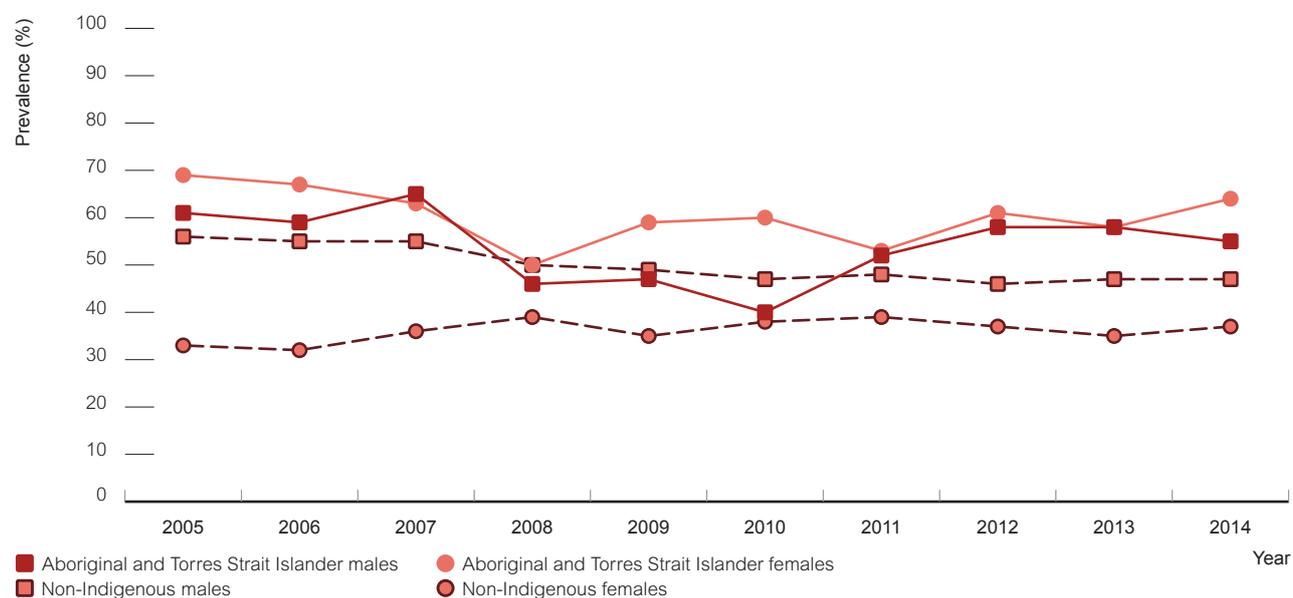
	Urban	Regional	Remote	Total	
Ever tested	49%	51%	53%	50%	
Timing of last HIV test*	Last 12 months	60%	63%	58%	61%
	More than 12 months ago	22%	17%	12%	19%
	Unknown	18%	21%	31%	20%

*among those ever tested

Source: Australian study of knowledge, risk practices and health service access for Sexually Transmissible Infections (STIs) and Blood Borne Viruses (BBVs) among young Aboriginal and Torres Strait Islander people (The Goanna Survey), available from <http://www.bakeridi.edu.au/Assets/Files/Final%20Goanna%20Report%20July%202014.pdf>

The Australian Needle and Syringe Program Survey showed consistently each year a higher proportion of Aboriginal and Torres Strait Islander females attending needle and syringe programs reporting an HIV test in the past year, compared with non-Indigenous female participants (64% vs. 37% in 2014), whereas the HIV testing history was similar for males (Figure 12).

Figure 12 Proportion of people who inject drugs seen at needle and syringe programs who reported an HIV antibody test in the past 12 months, 2005 – 2014, by Aboriginal and Torres Strait Islander status and sex



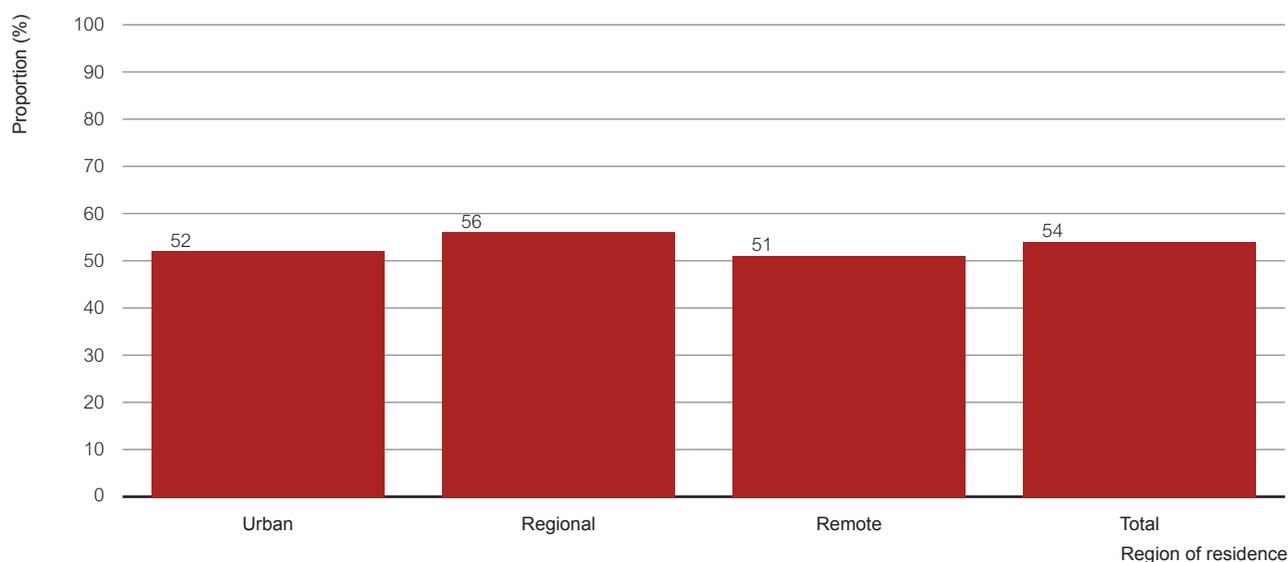
Source: Australian Needle and Syringe Program Survey



Condom use

According to the first national study assessing knowledge, risk practices and health service use in relation to sexually transmissible infections and bloodborne viruses (Goanna Survey) completed by close to 3 000 young Aboriginal people in 2011 – 2013, just over half of the participants aged 16 – 29 years reported using a condom at last sex, with little variation by region (Figure 13).

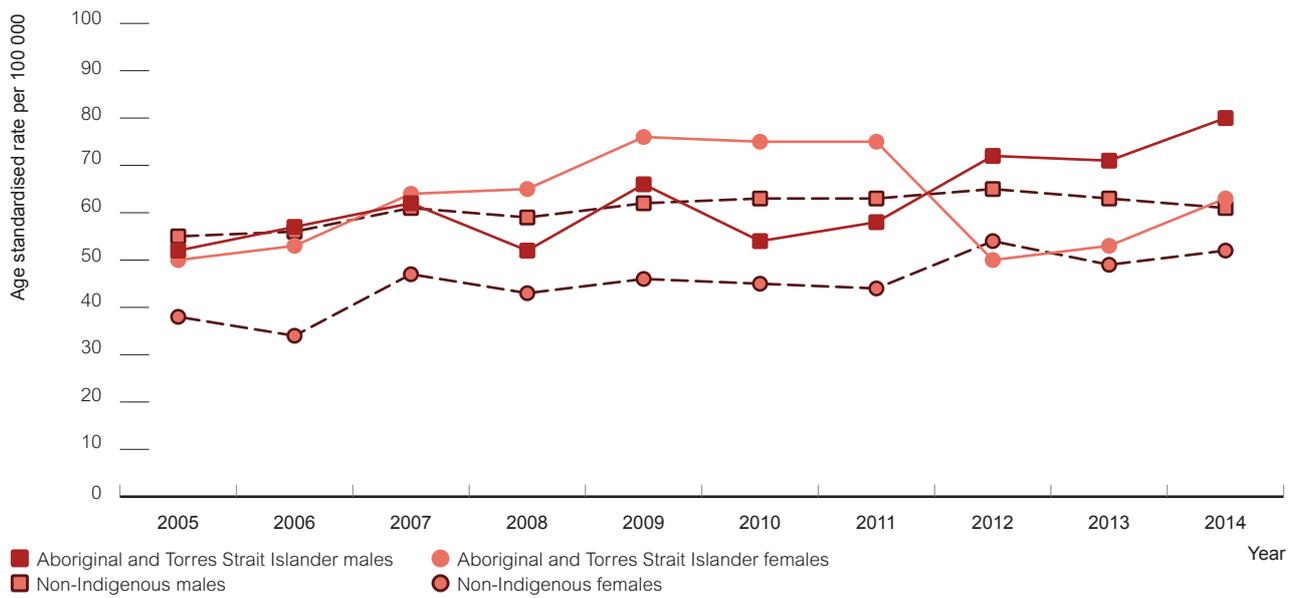
Figure 13 Used a condom at last sex, Aboriginal and Torres Strait Islander peoples aged 16 – 29 years, by area of residence



Source: Australian study of knowledge, risk practices and health service access for Sexually Transmissible Infections (STIs) and Blood Borne Viruses (BBVs) among young Aboriginal and Torres Strait Islander people (The Goanna Survey), available from <http://www.bakeridi.edu.au/Assets/Files/Final%20Goanna%20Report%20July%202014.pdf>

According to the Australian Needle and Syringe Program Survey, in most years between 2005 and 2014, a higher proportion of Aboriginal and Torres Strait Islander female participants (50 – 76%) reported inconsistent condom use with casual partners in the last month compared with non-Indigenous female participants (34 – 52%) (Figure 14). Rates of inconsistent condom use in male participants attending needle and syringe programs were similar between Aboriginal and Torres Strait Islander and non-Indigenous males, except for 2012 – 2014 when rates of inconsistent condom use were higher in Aboriginal and Torres Strait Islander males (Figure 14).

Figure 14 Prevalence of inconsistent condom use with casual partners¹ among people who inject drugs attending needle and syringe programs, 2005 – 2014, by Aboriginal and Torres Strait Islander status and sex



¹ Denominator includes those who had sex with casual partner in the last month

Source: Australian Needle and Syringe Program Survey



Main Findings

Hepatitis C Infection

- A total of 10 621 cases of newly diagnosed hepatitis C infection were reported in Australia in 2014; 877 (8%) occurred among the Aboriginal and Torres Strait Islander population, 3 379 (32%) were among the non-Indigenous population and a further 6 365 (60%) cases for which Indigenous status was not reported.
- The rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population in 2014 was 164 per 100 000, almost 5 times higher than the 35 per 100 000 in the non-Indigenous population.
- In the last five years, there was a 38% increase in the notification rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population (from 119 in 2010 to 164 per 100 000 in 2014), whereas the rate in the non-Indigenous population decreased by 15% (from 41 in 2010 to 35 per 100 000 in 2014).
- The increasing rate of hepatitis C diagnosis among Aboriginal and Torres Strait Islander peoples, possibly relates to higher levels of re-use of injecting equipment in this population.
- The uptake of treatment for hepatitis C remains very low, with the vast majority not having received curative therapy

Newly diagnosed hepatitis C infections

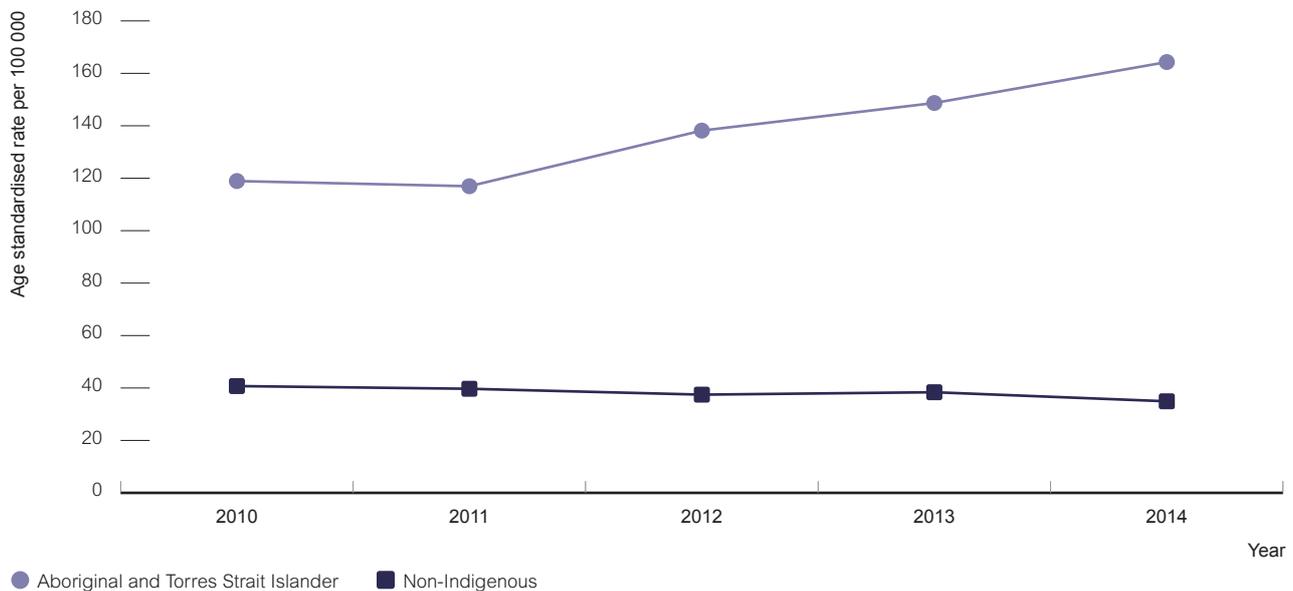
This section focuses on newly diagnosed hepatitis C infection, which means that a person previously not known to have the infection has been tested and now found to have the infection. These diagnoses include newly acquired infections (previous negative test in the past 2 years or clinical evidence of newly acquired hepatitis C), plus those with a previous test more than 2 years ago, where the time period is unknown or no previous testing has ever been done.

In 2014, there were 877 notifications of newly diagnosed hepatitis C infection among the Aboriginal and Torres Strait Islander population, representing 8% of all notifications.

In the five-year period 2010 – 2014, Aboriginal and Torres Strait Islander status was reported in less than 50% of notifications per year in the Australian Capital Territory, New South Wales, Victoria and Queensland and, as such, notification data for hepatitis C excludes these jurisdictions. Hereinafter, notification data for the period 2010 – 2014 refers to data notified from the Northern Territory, South Australia, Tasmania, and Western Australia.

In the five-year period 2010 – 2014, the age-standardised notification rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population increased by 38% from 119 in 2010 to 164 per 100 000 in 2014; whereas the rate in the non-Indigenous population decreased by 15% from 41 in 2010 to 35 per 100 000 in 2014 (Figure 15).

Figure 15 Newly diagnosed hepatitis C notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status

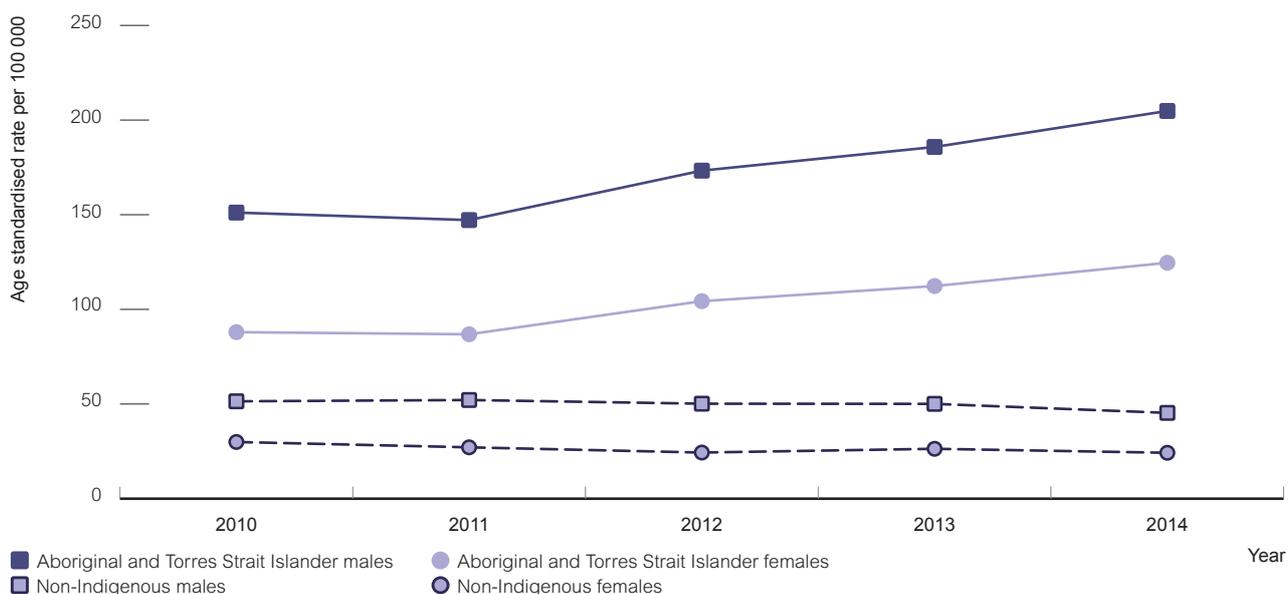


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 32380do001_2011

In the period 2010 – 2014, the hepatitis C notification rate was higher in both Aboriginal and Torres Strait Islander males and females, compared to the non-Indigenous population in all years (Figure 16). In Aboriginal and Torres Strait Islander males, the hepatitis C notification rate increased by 36% (from 151 in 2010 to 205 per 100 000 in 2014), and females increased by 42% (from 88 in 2010 to 125 per 100 000 in 2014); whereas the rate in non-Indigenous males and females declined slightly.

The higher rates of newly diagnosed and newly acquired hepatitis C infection in the Aboriginal and Torres Strait Islander population compared to the non-Indigenous population could be due to higher levels of injecting risk behaviours in Aboriginal and Torres Strait Islander people who inject drugs, as well as higher uptake of initiation of injection among young people.

Figure 16 Newly diagnosed hepatitis C notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and sex

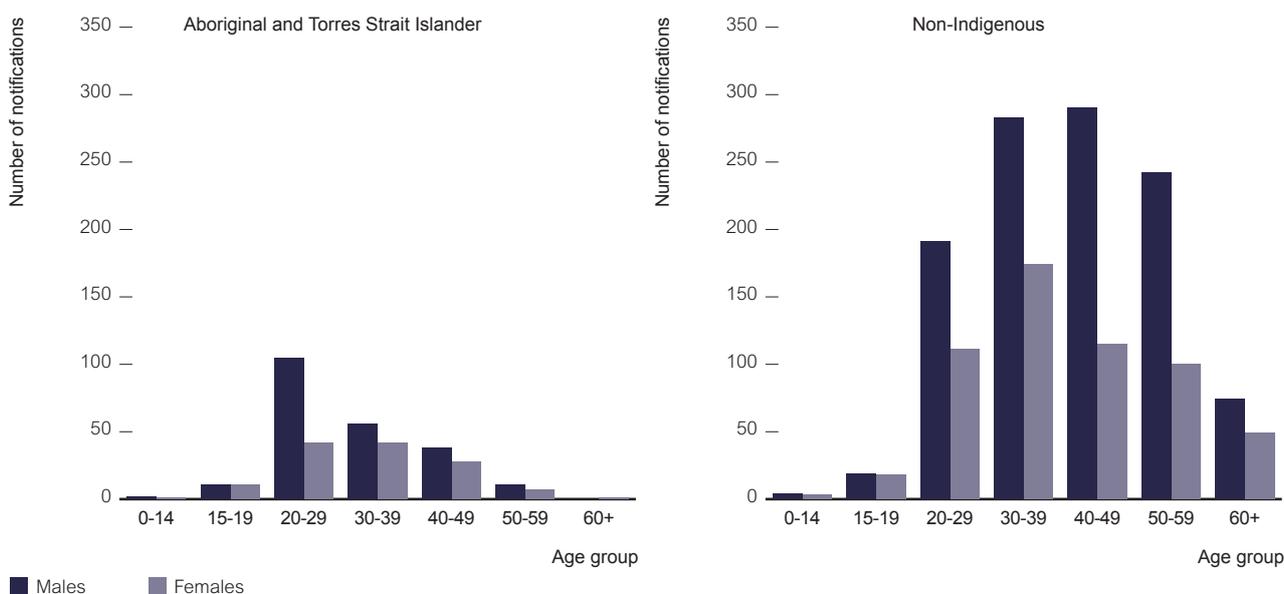


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212;32380do001_2011

In 2014, the majority (over 90%) of notifications of newly diagnosed hepatitis C infection in both the Aboriginal and Torres Strait Islander and the non-Indigenous population occurred in people aged over 20 years (Figure 17).

In 2014, of notifications of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population, 63% were in males and 37% in females, and similarly in the non-Indigenous population, 66% of newly diagnosed hepatitis C infections were in males and 34% in females (Figure 17).

Figure 17 Number of notifications of newly diagnosed hepatitis C infection, 2014, by Aboriginal and Torres Strait Islander status, age and sex



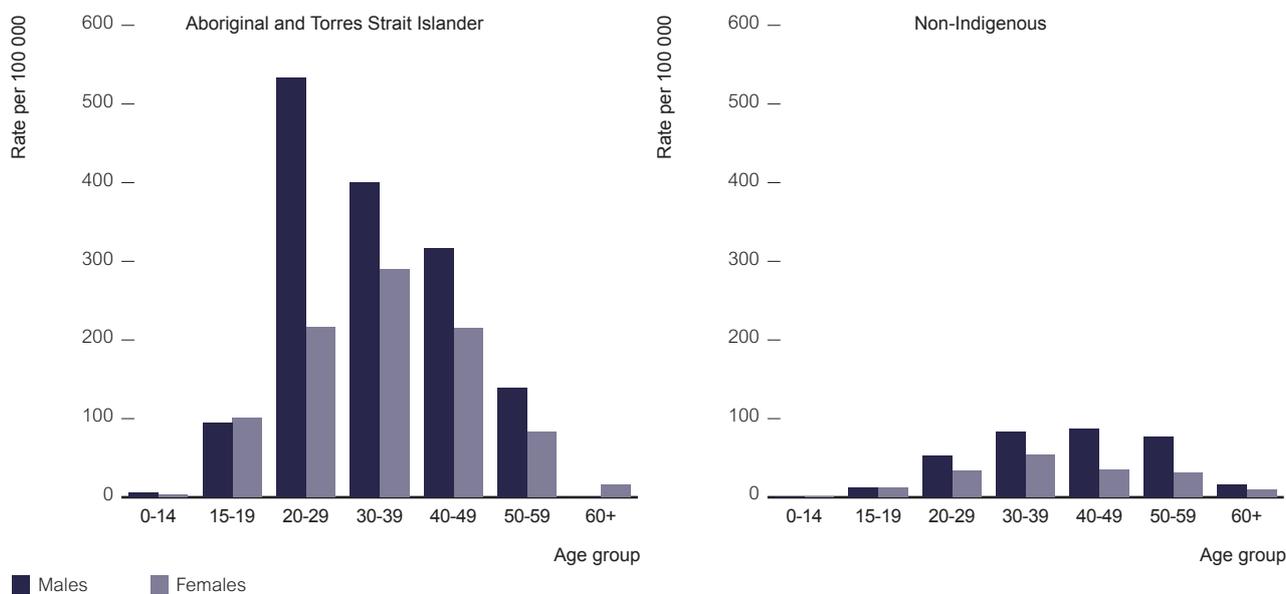
Source: Australian National Notifiable Disease Surveillance System

In 2014 the greatest difference between notification rates of newly diagnosed hepatitis C infection between the Aboriginal and Torres Strait Islander population and non-Indigenous population was observed in the younger age groups. The notification rates of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander male population aged 15 – 19 and 20 – 24 years in 2014 was 8 and 10 times higher than the rates in the non-Indigenous

population in the same age groups, and in the 30 – 39 and 40 – 49 year age groups were 5 and 4 times higher, respectively (Figure 18).

Similar findings were observed in females with; 8 and 7 times higher notification rates in the Aboriginal and Torres Strait Islander female population aged 15 – 19 and 20 – 24 years than the non-Indigenous population, and 5 and 6 times higher in 30 – 39 and 40 – 49 age groups, respectively (Figure 18).

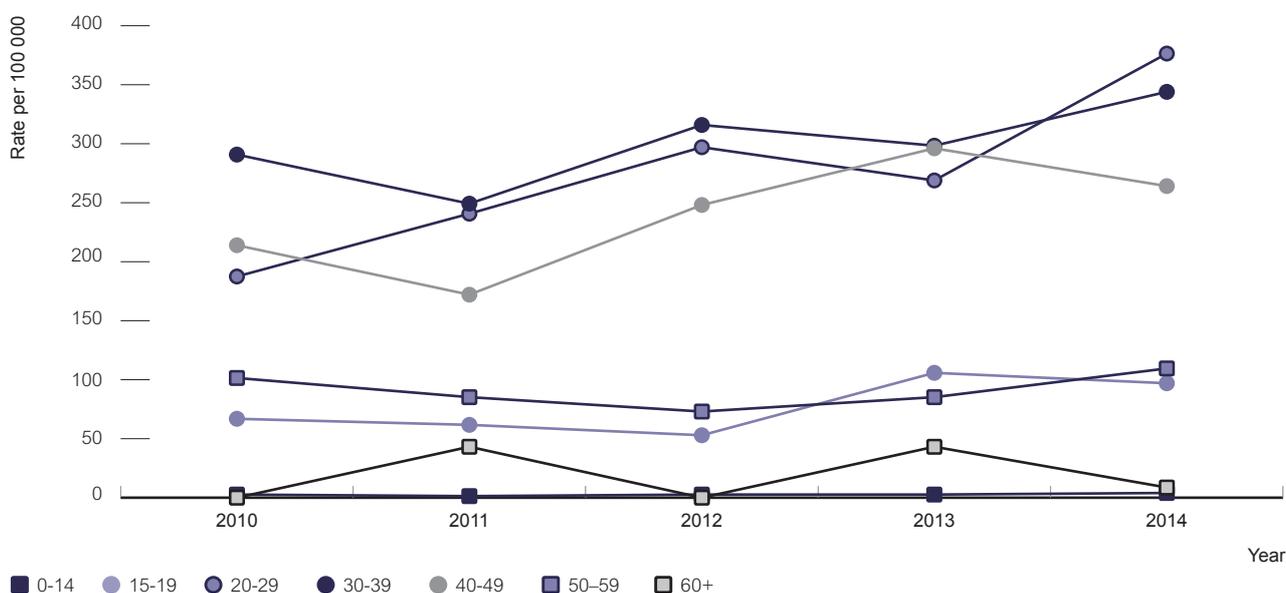
Figure 18 Newly diagnosed hepatitis C notification rate per 100 000, 2014, by Aboriginal and Torres Strait Islander status, sex and age group



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 32380do001_2011

In the five-year period 2010 – 2014, the highest increase in the hepatitis C notification rate was in 20 – 29 year olds by 100% from 187 in 2010 to 376 per 100 000 in 2014. Rates increased in the 30 – 39 year old age group by 18% and 40 – 49 year olds by 23% (Figure 19).

Figure 19 Newly diagnosed hepatitis C notification rate per 100 000, 2010 – 2014, in Aboriginal and Torres Strait Islander peoples, by age group

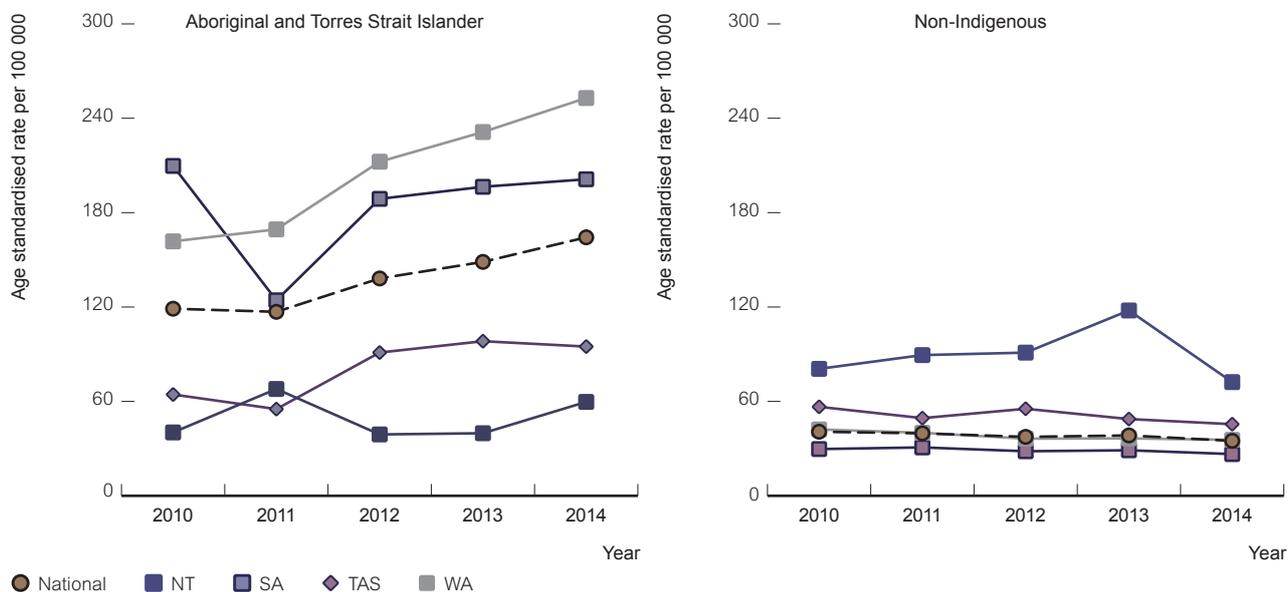


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogue 3101051 – 3101058; 3100DO003_201212; 32380do001_2011



Between 2010 – 2014, the age-standardised notification rate of newly diagnosed hepatitis C infection in the Aboriginal and Torres Strait Islander population fluctuated in individual jurisdictions, except in Western Australia where rates have increased steadily since 2010 (Figure 20).

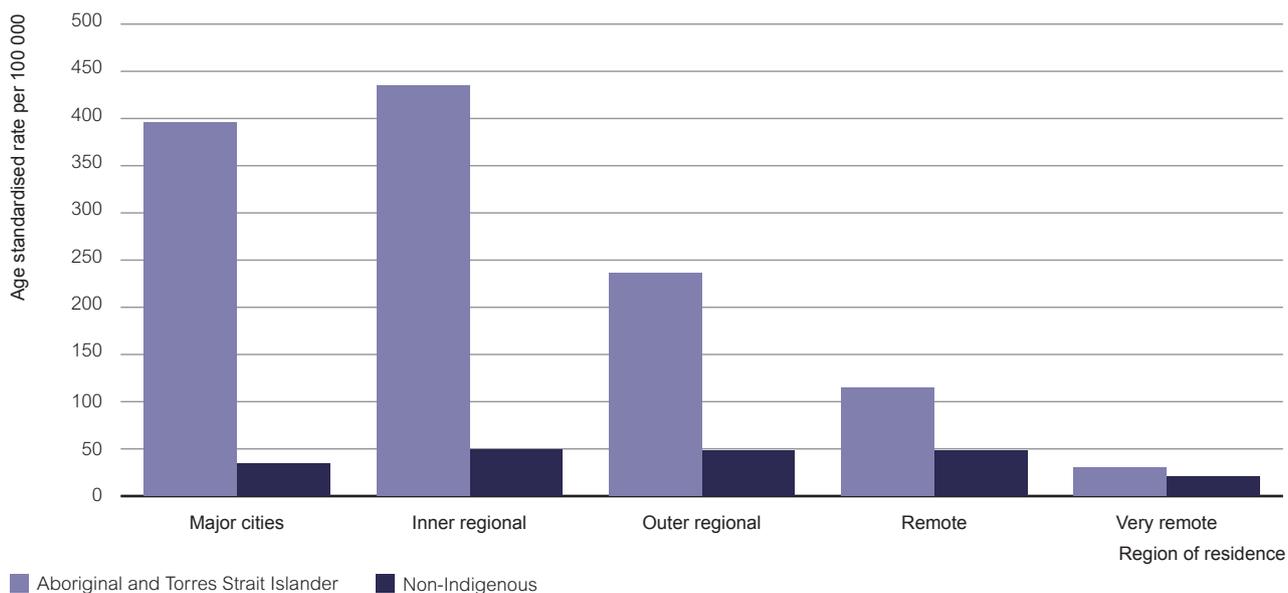
Figure 20 Newly diagnosed hepatitis C notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and State/Territory



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogue 3101051 – 3101058; 3100DO003_201212;32380do001_2011

In 2014, the notification rate of newly diagnosed hepatitis C infection among the Aboriginal and Torres Strait Islander population in major cities, inner regional, outer regional, remote and very remote areas was 11.5, 9, 5, 2.5 and 1.5 times higher respectively than the rate of diagnosis in the non-Indigenous population resident in the same areas (Figure 21).

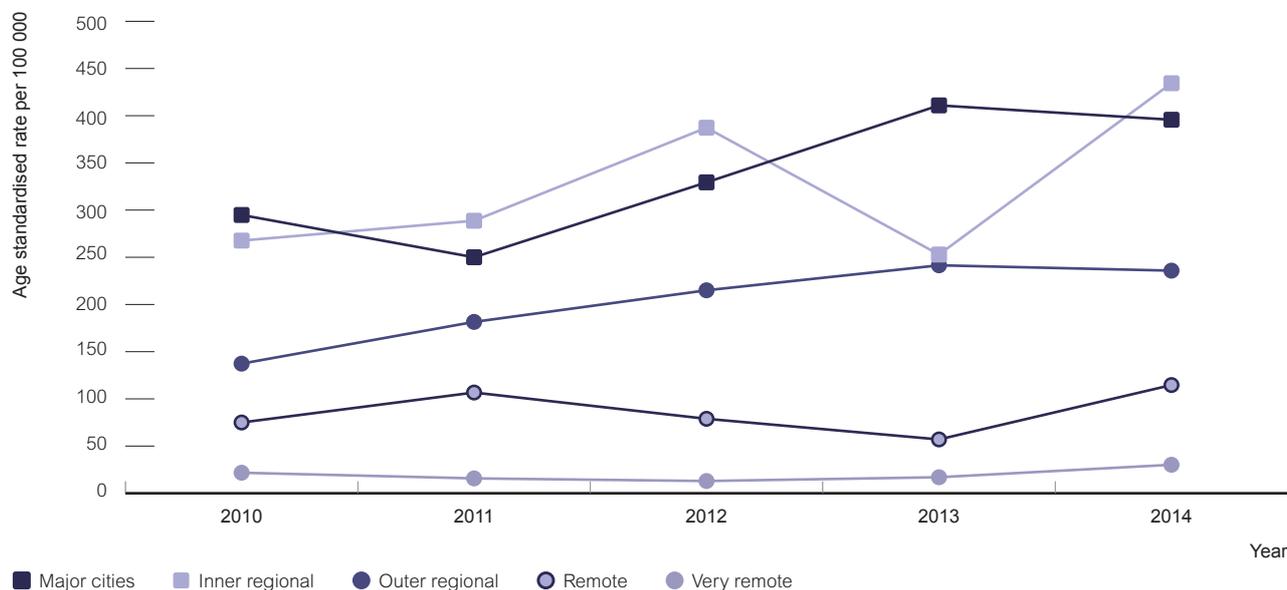
Figure 21 Newly diagnosed hepatitis C notification rate per 100 000, 2014, by Aboriginal and Torres Strait Islander status and area of residence



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 1270055006 CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011

Between 2010 and 2014 the notification rate of newly diagnosed hepatitis C infection in Aboriginal and Torres Strait Islander peoples increased in major cities by 34% from 295 per 100 000 in 2010 to 396 in 2014, and by 72% in outer regional areas with an increase from 137 per 100 000 in 2010 to 236 in 2014 (Figure 22).

Figure 22 Newly diagnosed hepatitis C notification rate per 100 000, 2010 – 2014, by area of residence



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011

Newly acquired hepatitis C infection

This section focuses on newly acquired hepatitis C infection which means that a person previously known not to have the infection within the last two years has been tested and now found to have the infection. These data on newly acquired infections should be interpreted with caution as they are likely to under-estimate the true number of newly acquired infections in the community for a number of reasons: infections are rarely symptomatic in the early stages and most cases will therefore remain undetected. Also, even if testing is conducted, it may be difficult to distinguish a newly diagnosed case as newly acquired unless there is a history of a recent negative test prior to the positive diagnosis or clinical evidence of newly acquired hepatitis C.

In 2014, of the 440 cases of newly acquired hepatitis C infection notified, 118 (27%) were diagnosed in the Aboriginal and Torres Strait Islander population and 311 (71%) in the non-Indigenous population, Indigenous status was not reported for 11 (2%) diagnoses.

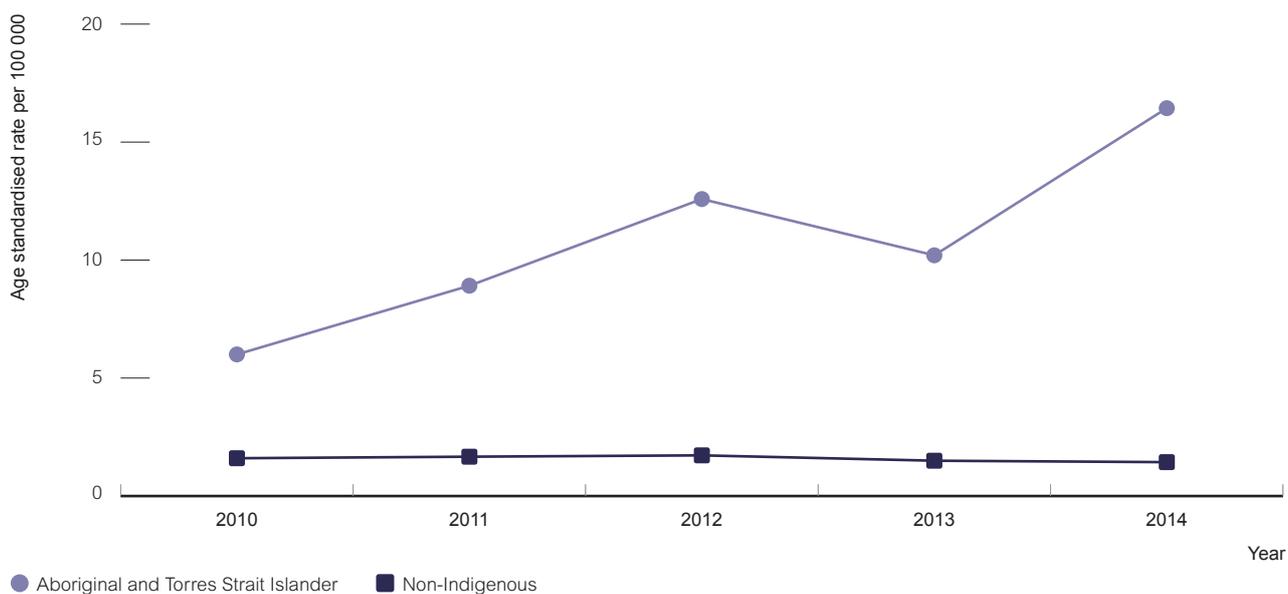
Information on Aboriginal and Torres Strait Islander status was reported for more than 50% of notifications of newly acquired hepatitis C infection in all jurisdictions except Queensland. Analyses below exclude Queensland.

In 2014, the notification rate of newly acquired hepatitis C infection in the Aboriginal and Torres Strait Islander population was 11 times that of the non-Indigenous population (16 vs. 1.4 per 100 000 respectively) (Figure 23).

In the five-year period 2010 – 2014, the notification rate of newly acquired hepatitis C infection in the Aboriginal and Torres Strait Islander population increased from 6 in 2010 to 16 in 2014 (Figure 23).



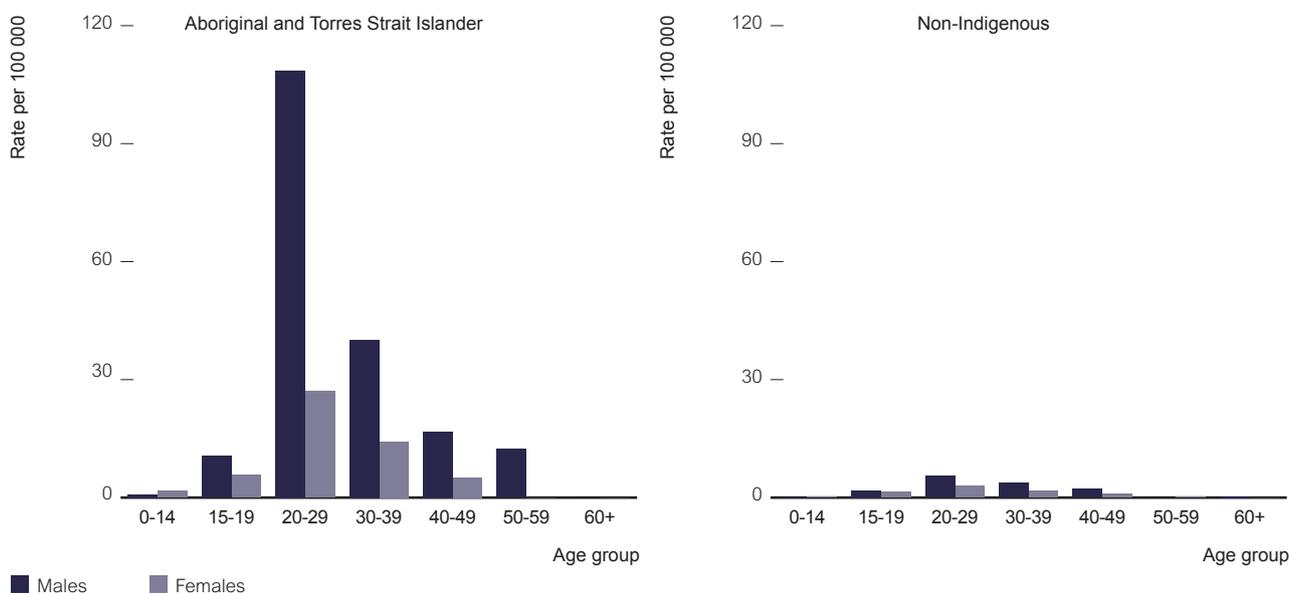
Figure 23 Newly acquired hepatitis C notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogue 3101051 – 3101058; 3100DO003_201212;32380do001_2011

In 2014 the rates of newly acquired hepatitis C notifications were highest in the 20 – 29 year age group, and in this age group the rate was close to 20 times higher among Aboriginal and Torres Strait Islander males than non-Indigenous males (109 vs. 6 per 100 000). Similarly, rates were nine times higher among Aboriginal and Torres Strait Islander females compared to non-Indigenous females aged 20 – 29 years old (27 vs. 3 per 100 000) (Figure 24).

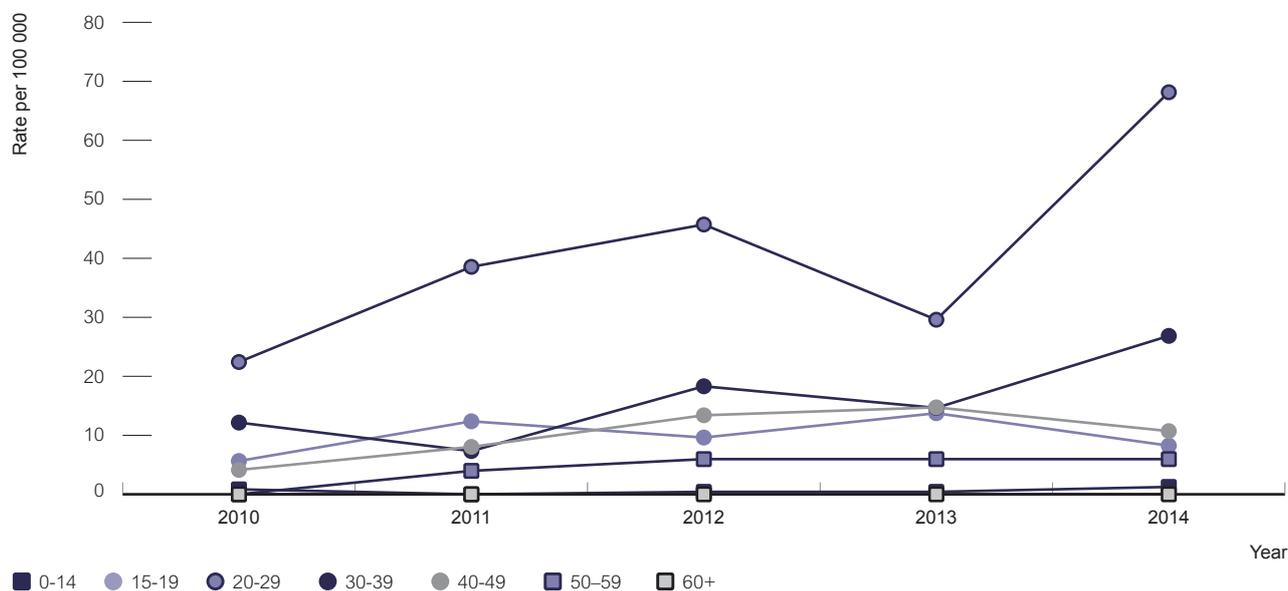
Figure 24 Newly acquired hepatitis C notification rate per 100 000, 2014, by Aboriginal and Torres Strait Islander status and age group



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 32380do001_2011

In the Aboriginal and Torres Strait Islander population, the rate of newly acquired hepatitis C infection in the 20 – 29 age group increased from 2010 – 2012, declined in 2013, then increased again in 2014 (Figure 25).

Figure 25 Newly acquired hepatitis C notification rate per 100 000, 2010 – 2014, by age

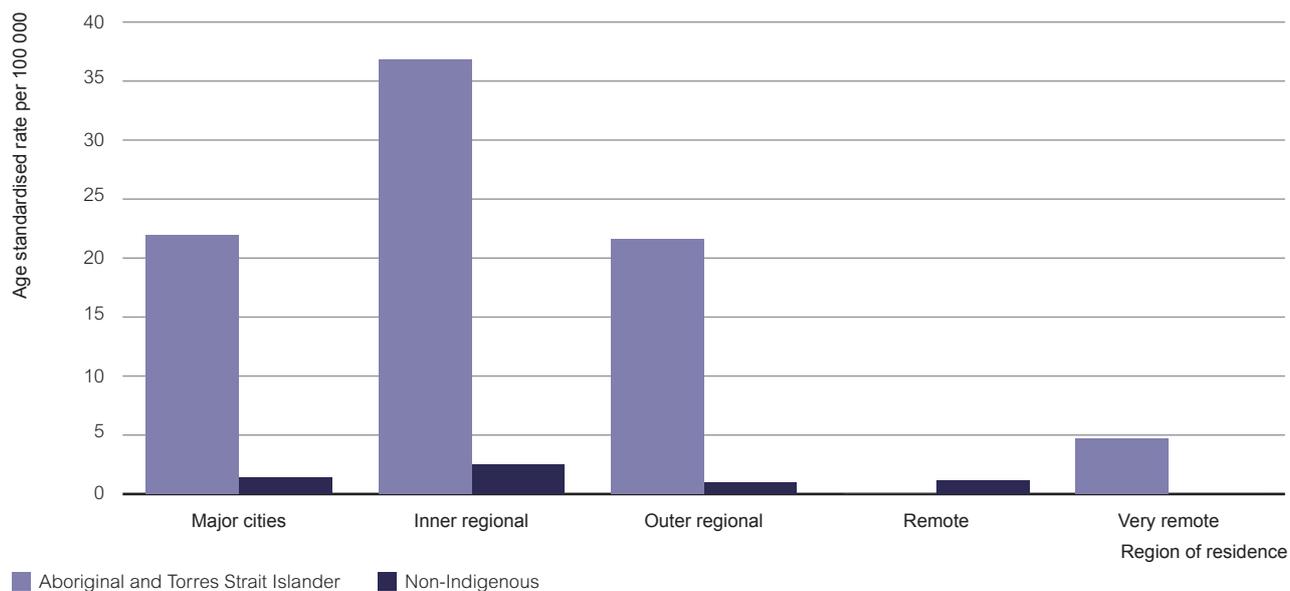


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 32380do001_2011

Notification rates of newly acquired hepatitis C in the Aboriginal and Torres Strait Islander population were highest in inner regional areas (37 per 100 000), and 15 times higher than non-Indigenous notifications from the same area of residence. The difference between Aboriginal and Torres Strait Islander and non-Indigenous notification rates was greatest in outer regional areas (22 per 100 000 compared to 1 per 100 000) (Figure 26).



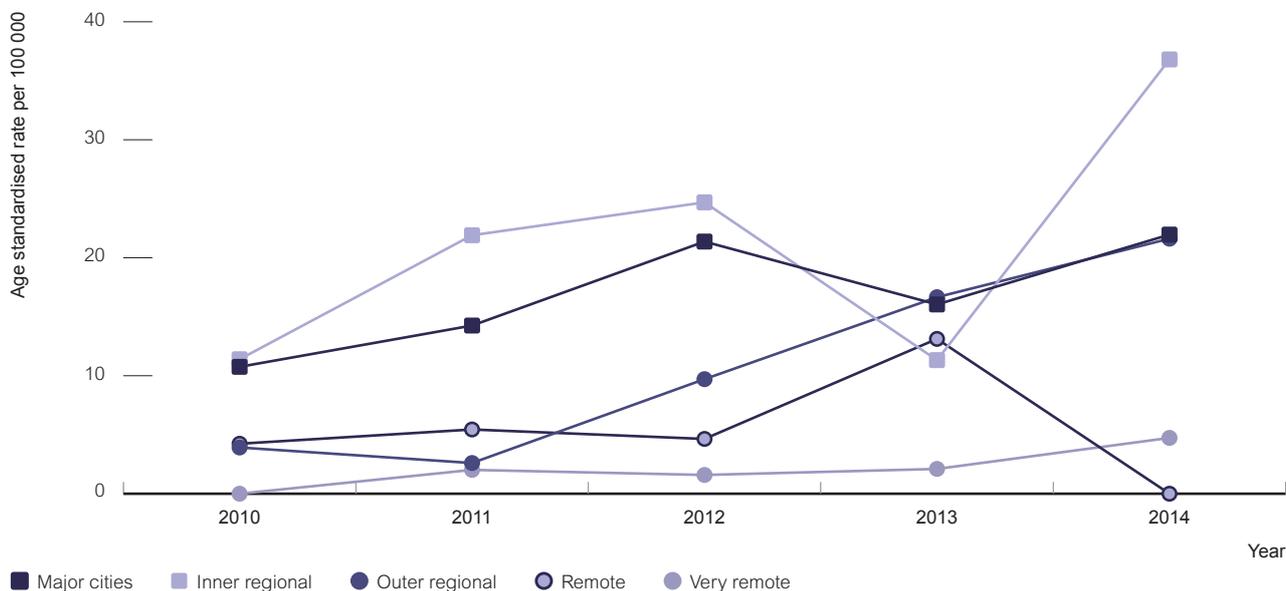
Figure 26 Newly acquired hepatitis C notification rate per 100 000, 2014, by Aboriginal and Torres Strait Islander status and area of residence



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 2 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011

From 2010 – 2014, notification rates of newly acquired hepatitis C in the Aboriginal and Torres Strait Islander population increased the most in outer regional areas of residence (4 to 22 per 100 000) and inner regional (11 to 37 per 100 000) (Figure 27).

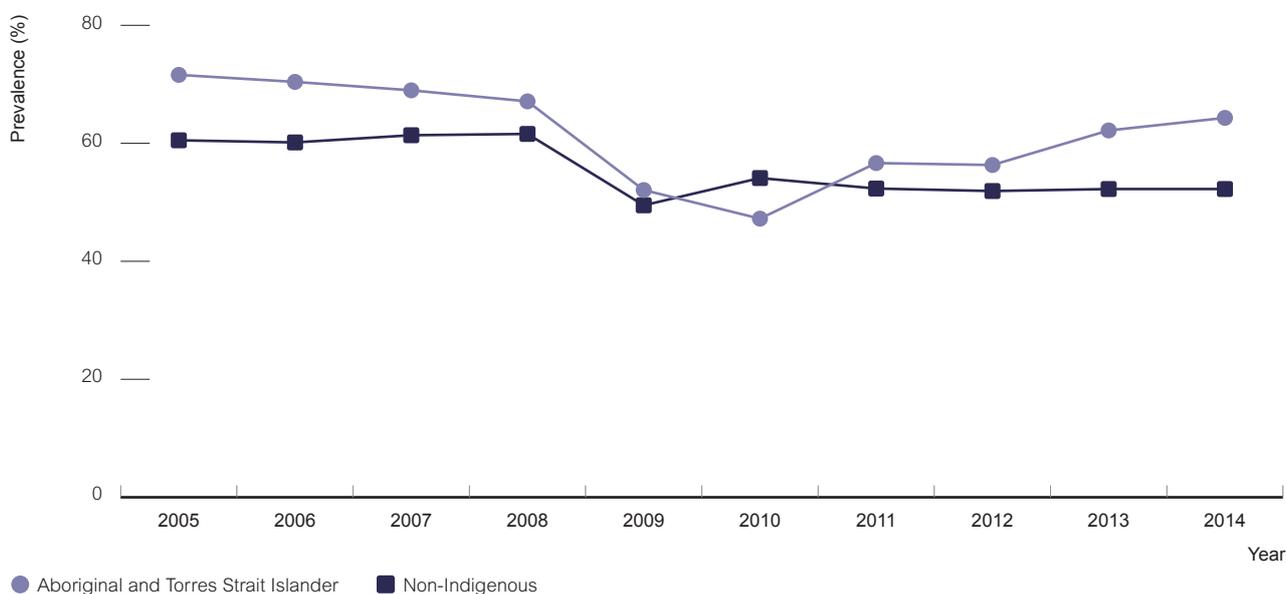
Figure 27 Newly acquired hepatitis C notification rate per 100 000, 2010 – 2014, by area of residence



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 2 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011

Data routinely collected from the Australian and Needle Syringe Program Survey provides an insight into the demographics, risk behaviour, and bloodborne virus prevalence among people who inject drugs who attend needle and syringe programs. In the period from 2005 – 2014, the proportion of participants identified as Aboriginal and Torres Strait Islander remained stable at between 10 – 14%. Hepatitis C antibody prevalence was slightly higher among Aboriginal and Torres Strait Islander survey respondents compared to non-Indigenous participants for all years, except for 2010 (Figure 28). In 2014, hepatitis C antibody prevalence was 64% among Aboriginal and Torres Strait Islander participants compared with 52% among non-Indigenous participants (Figure 28).

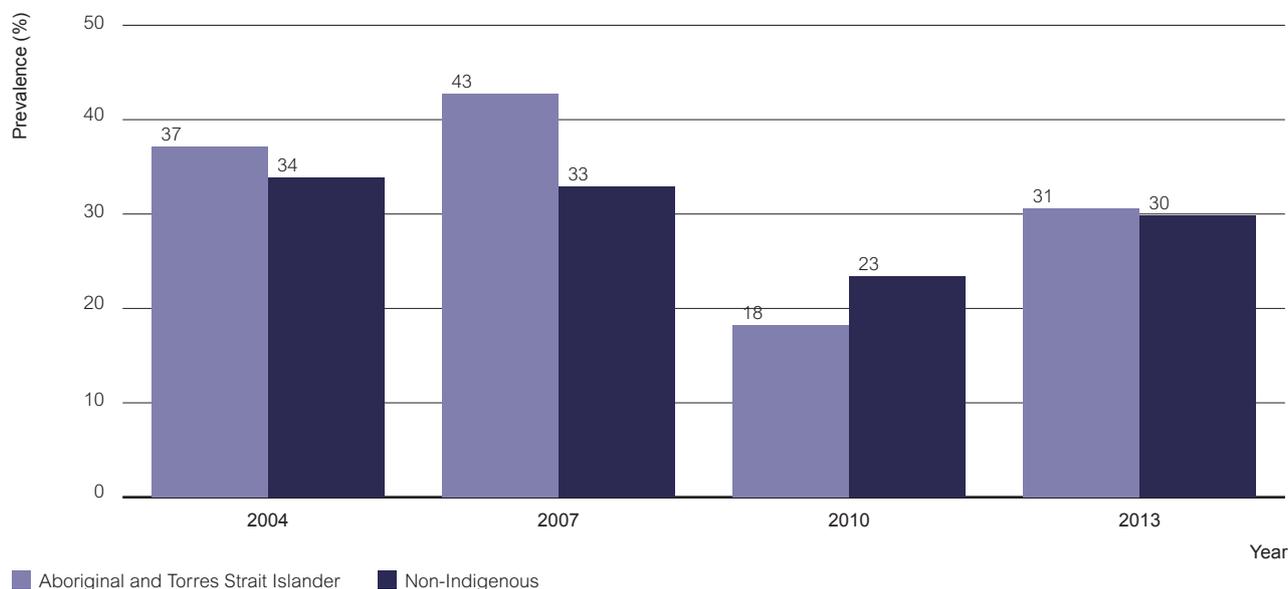
Figure 28 Hepatitis C antibody prevalence in needle and syringe program participants, 2005 – 2014, by Aboriginal and Torres Strait Islander status



Source: Australian Needle and Syringe Program Survey

The National Prison Entrants' Bloodborne Virus Survey is a triennial survey of prison entrants conducted over a two week period². Hepatitis C prevalence was higher among Aboriginal and Torres Strait Islander prisoners in 2004 and 2007 but lower in 2010, and similar in 2013 (Figure 29).

Figure 29 Hepatitis C antibody prevalence among a sample of incoming Australian prisoners, by year of survey, and Aboriginal and Torres Strait Islander status

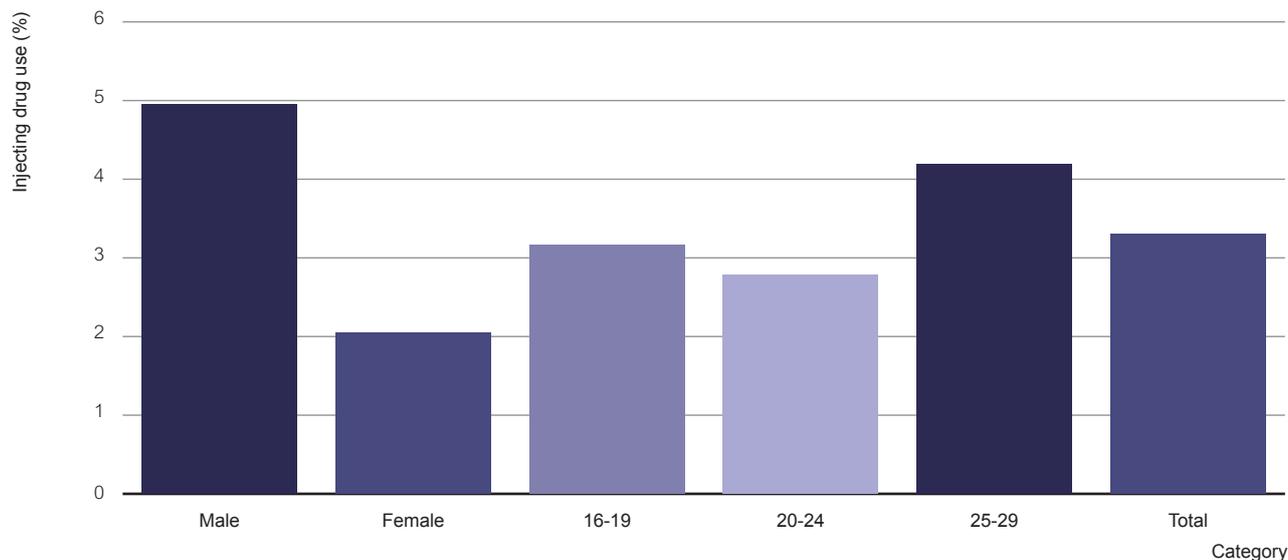


Source: National Prison Entrants' Bloodborne Virus Survey, 2004, 2007, 2010, and 2013

Injecting drug use

According to the first national study assessing knowledge, risk practices and health service use in relation to sexually transmissible infections and bloodborne viruses (The Goanna Survey) conducted among young Aboriginal and Torres Strait Islander peoples in 2011 – 2013, 3% of 16 – 29 year olds reported injecting drug use in the last year, higher in males (5%) than females (2%) (Figure 30).

Figure 30 Injecting drug use in the last year, Aboriginal people aged 16 – 29 years, by sex, and age group

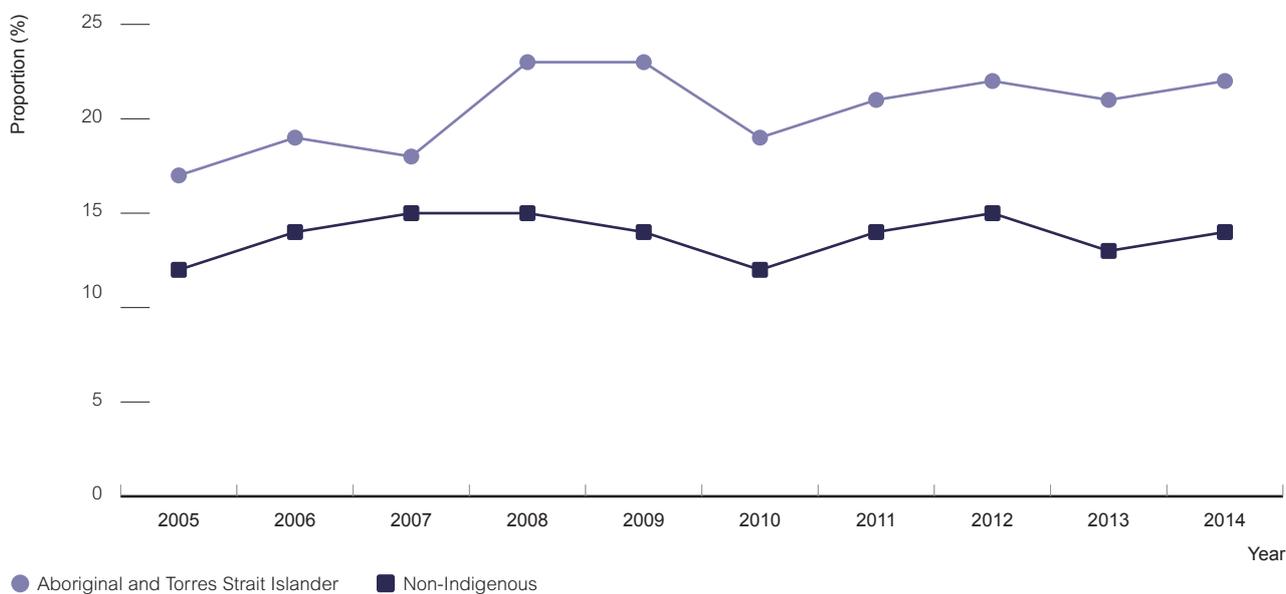


Source: Australian study of knowledge, risk practices and health service access for Sexually Transmissible Infections (STIs) and Blood Borne Viruses (BBVs) among young Aboriginal and Torres Strait Islander people (The Goanna Survey), available from <http://www.bakeridi.edu.au/Assets/Files/Final%20Goanna%20Report%20July%202014.pdf>



According to the Australian Needle and Syringe Program Survey, a higher proportion of Aboriginal and Torres Strait Islander peoples attending needle and syringe programs reported receptive syringe sharing as compared to non-Indigenous participants (22% vs. 14% in 2014) (Figure 31). Receptive syringe sharing was determined from the question, “How many times in the last month did you reuse a needle and syringe after someone else had used it, including your sex partner (even if it was cleaned)?”.

Figure 31 Prevalence of receptive syringe sharing (RSS)¹ by needle and syringe program participants, 2005 – 2014, by Aboriginal and Torres Strait Islander status

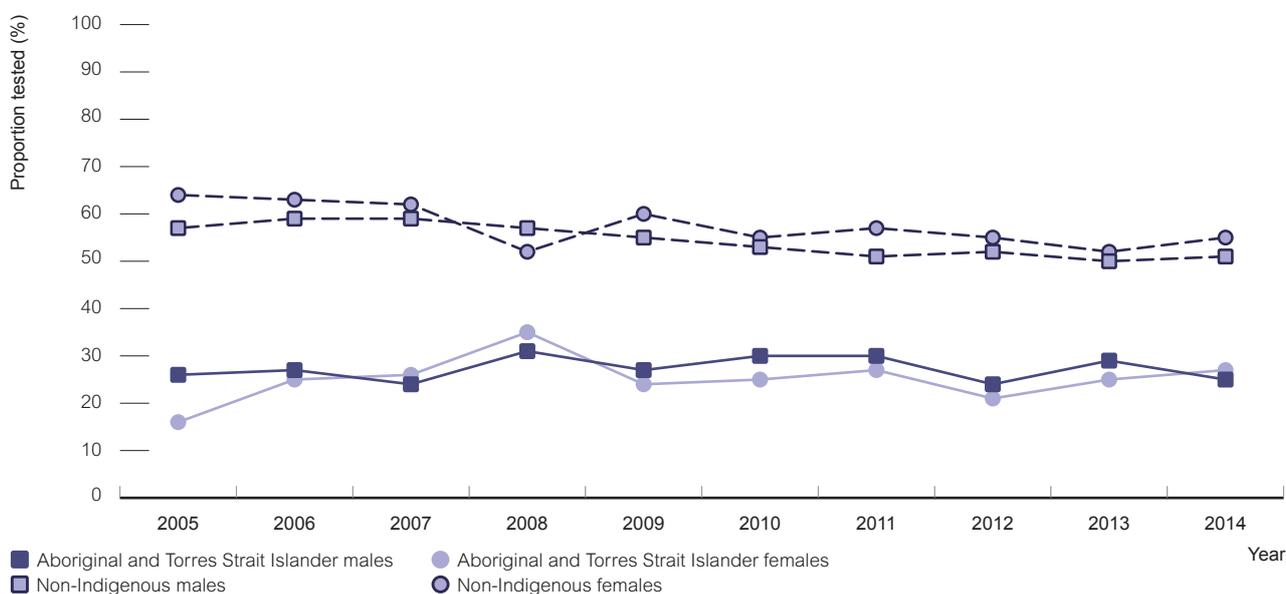


¹ Denominator includes only those who injected in the last month
 Source: Australian Needle and Syringe Program Survey

Testing

In regards to hepatitis C testing, in the Australian Needle and Syringe Program Survey a much lower proportion of Aboriginal and Torres Strait Islander males (25%) and females (27%) reported a hepatitis C test in the past year than non-Indigenous males and females (51% and 55%), respectively for 2014 (Figure 32).

Figure 32 Proportion of people who inject drugs seen at needle and syringe programs who reported a hepatitis C antibody test in the past twelve months, 2005 – 2014

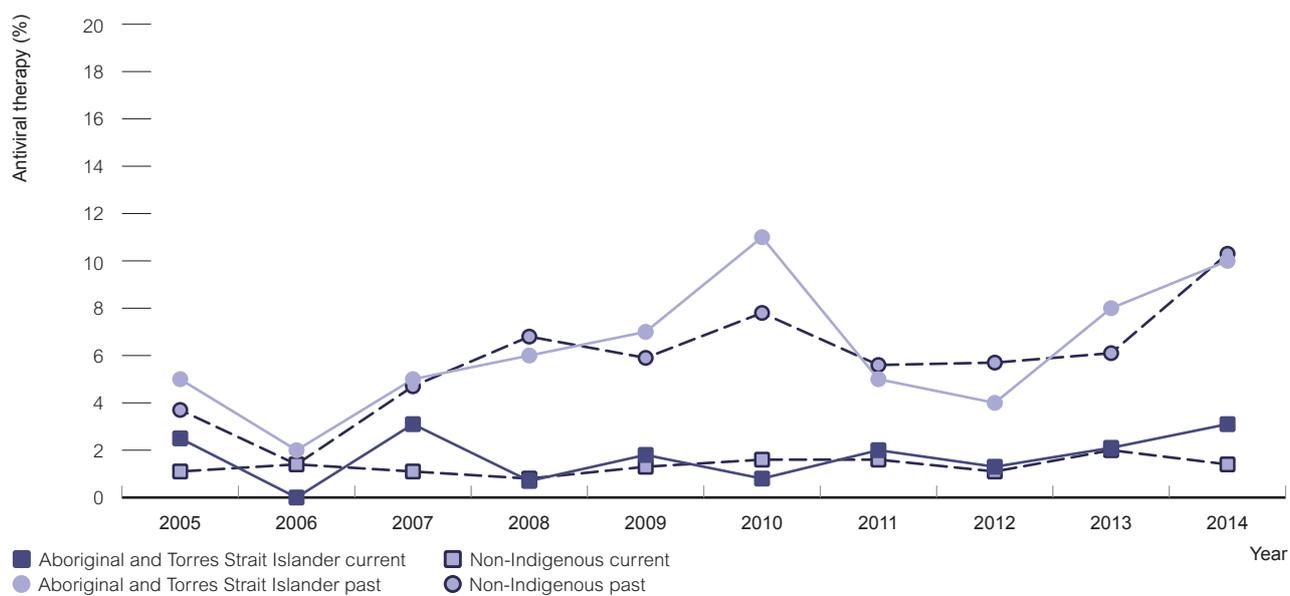


Source: Australian Needle and Syringe Program Survey

Treatment

According to the Australian Needle and Syringe Program Survey, among Aboriginal and Torres Strait Islander people who inject drugs, 3% reported they were currently receiving antiviral treatment in 2014 and 10% had received treatment in the past, increasing from 2.5% and 5%, respectively, in 2005 (Figure 33). These proportions were similar among Aboriginal and Torres Strait Islander and non-Indigenous participants.

Figure 33 Current and past use of hepatitis C antiviral therapy for hepatitis C antibody positive needle and syringe program participants, 2005 – 2014, by Aboriginal and Torres Strait Islander status



Source: Australian Needle and Syringe Program Survey



Main Findings

Hepatitis B

- There were a total of 6 635 notifications of newly diagnosed hepatitis B infection in Australia in 2014; of these, 164 (2%) were among the Aboriginal and Torres Strait Islander population, 2 247 (34%) were among the non-Indigenous population and there were a further 4 224 (64%) notifications for which Indigenous status was not reported.
- In 2014, the notification rate of newly diagnosed hepatitis B infection for the Aboriginal and Torres Strait Islander population was 2 times higher than the non-Indigenous population (50 per 100 000 vs. 23 per 100 000).
- In the five-year period 2010 – 2014, there was a 44% decline in the notification rate of newly diagnosed hepatitis B infection in the Aboriginal and Torres Strait Islander population (from 90 per 100 000 in 2010 to 50 per 100 000 in 2014), suggesting the immunisation programs for hepatitis B are starting to have a benefit.

Newly diagnosed hepatitis B infections

This section focuses on newly diagnosed hepatitis B infection, which means that a person previously not known to have the infection has been tested and now found to have the infection. These diagnoses include newly acquired infections (previous negative test in the past 2 years) plus those with a previous test more than 2 years ago or where the time period is unknown.

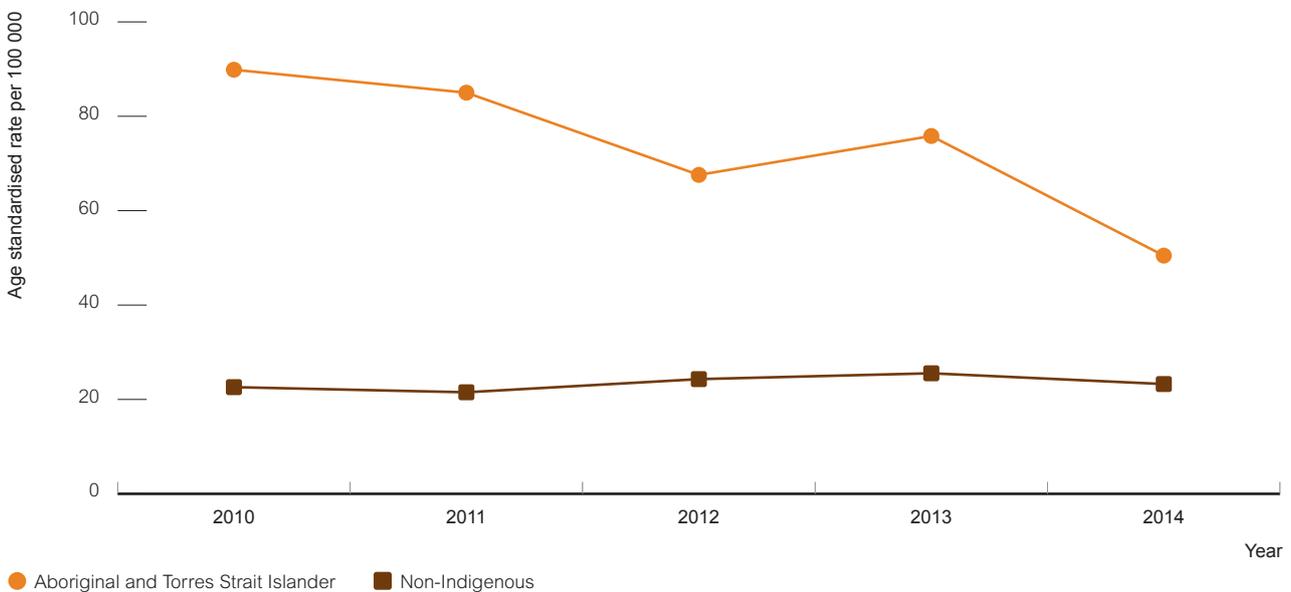
There were a total of 6 635 notifications of newly diagnosed hepatitis B infection in Australia in 2014; of these, 164 (2%) were among the Aboriginal and Torres Strait Islander population, 2 247 (34%) were among the non-Indigenous population, and there were a further 4 224 (64%) notifications for which Indigenous status was not reported.

In the five-year period 2010 – 2014, Aboriginal and Torres Strait Islander status was reported in less than 50% of notifications per year in New South Wales, Queensland and Victoria and, as such, notification data for newly diagnosed hepatitis B excludes these jurisdictions. Hereinafter, notification data for the period 2010 – 2014 refers to data notified from the Northern Territory, South Australia, Tasmania, the Australian Capital Territory and Western Australia.

In 2014, the age-standardised notification rate of newly diagnosed hepatitis B infection for the Aboriginal and Torres Strait Islander population was 2 times higher than the non-Indigenous population (50 per 100 000 versus 23 per 100 000) (Figure 34).

In the five-year period 2010 – 2014, there was a decline in the notification rates of newly diagnosed hepatitis B infection in the Aboriginal and Torres Strait Islander population (from 90 per 100 000 in 2010 to 50 per 100 000 in 2014), with rates remaining steady in the non-Indigenous population (Figure 34).

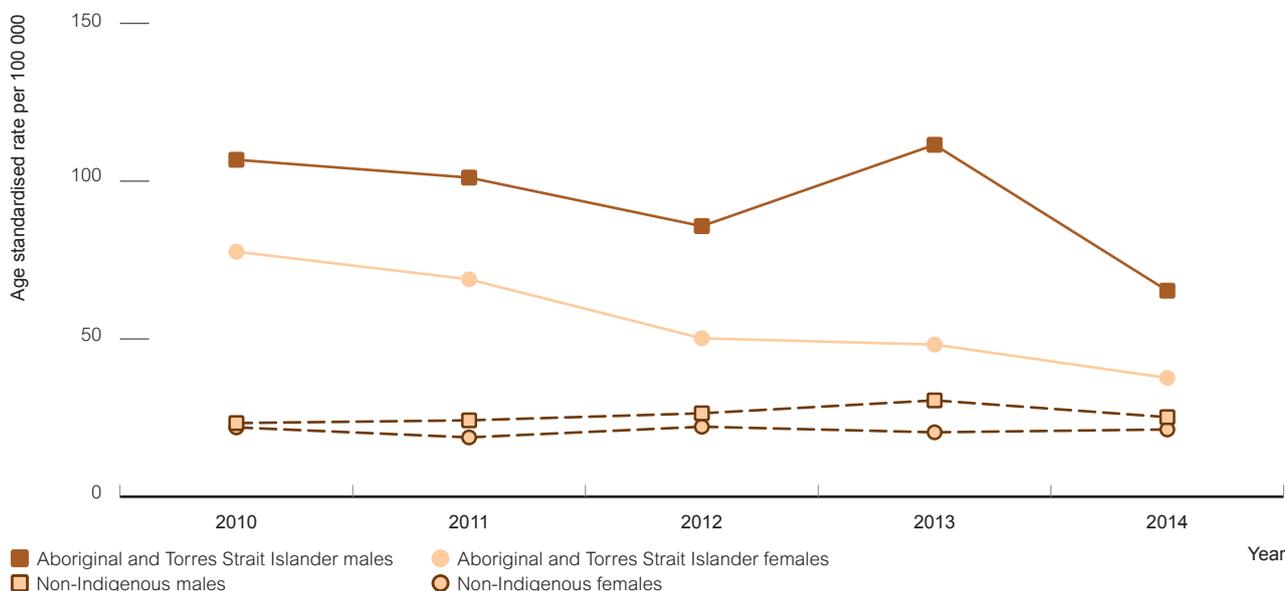
Figure 34 Newly diagnosed hepatitis B notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status



Source: Australian National Notifiable Disease System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Notification rates of newly diagnosed hepatitis B infection have been consistently higher in Aboriginal and Torres Strait Islander males as compared to Aboriginal and Torres Strait Islander females but have been decreasing over time in both sexes (from 107 per 100 000 in 2010 to 65 per 100 000 in 2014 in males, and 78 per 100 000 in 2010 and 38 per 100 000 in 2014 in females) (Figure 35).

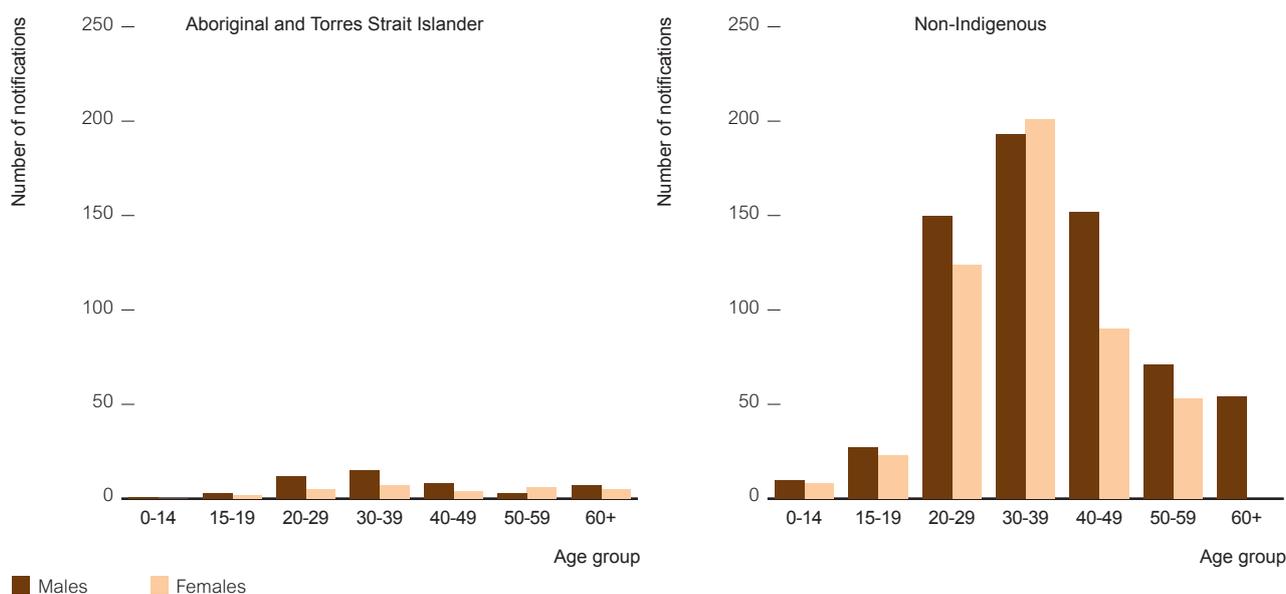
Figure 35 Newly diagnosed hepatitis B notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and sex



Source: Australian National Notifiable Disease System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In 2014, 92% and 94% of notifications of newly diagnosed hepatitis B infection in the Aboriginal and Torres Strait Islander and non-Indigenous populations, respectively, were in those aged 20 years of age and over (Figure 36).

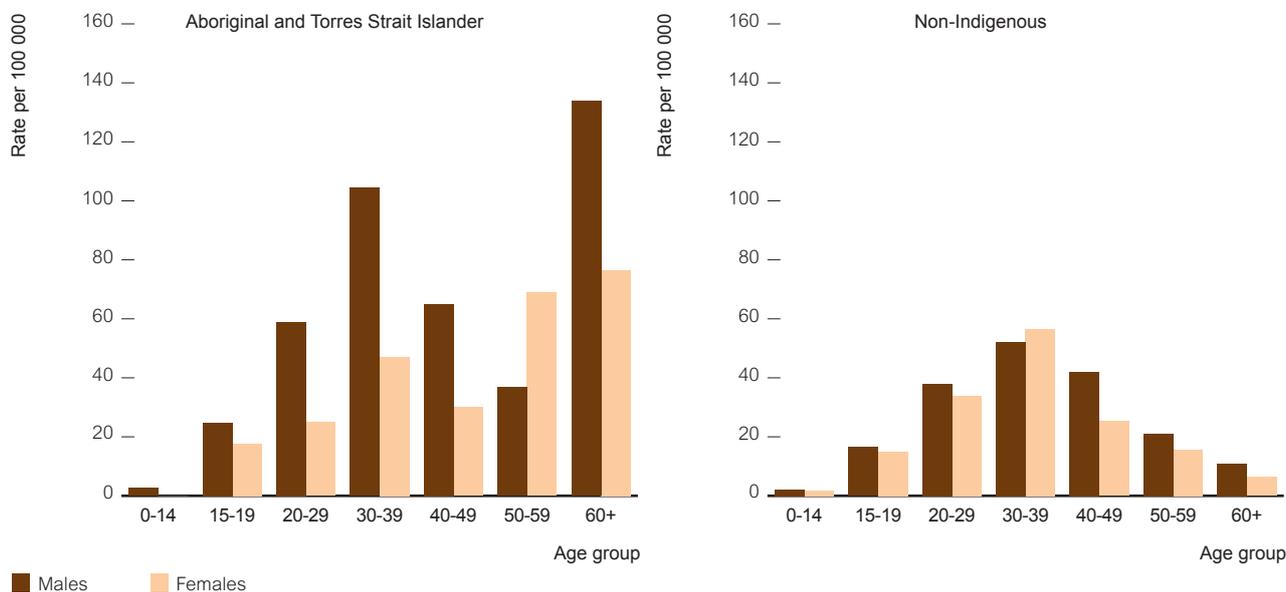
Figure 36 Number of cases of newly diagnosed hepatitis B, 2014, by Aboriginal and Torres Strait Islander status and age group



Source: Australian National Notifiable Disease System; ABS Catalogues: 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In 2014, Aboriginal and Torres Strait Islander peoples experienced substantially higher rates of newly diagnosed hepatitis B infection than non-Indigenous people in all age groups, particularly among males aged 30 – 39 years (104 vs. 52 per 100 000), and males aged 60 years and above (134 vs. 11 per 100 000), respectively (Figure 37).

Figure 37 Newly diagnosed hepatitis B notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and age group

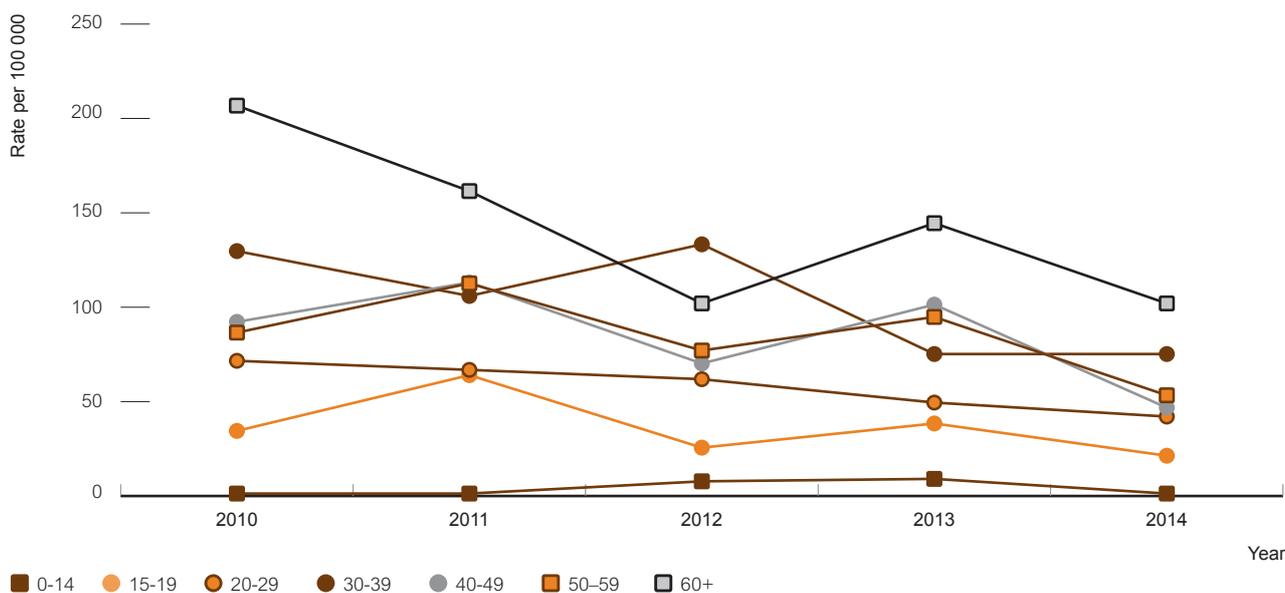


Source: Australian National Notifiable Disease System; ABS Catalogues: 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year



In the five year period 2010 – 2014, the rate of newly diagnosed hepatitis B has declined in Aboriginal and Torres Strait Islander peoples in all age groups; with fluctuations in some years (Figure 38).

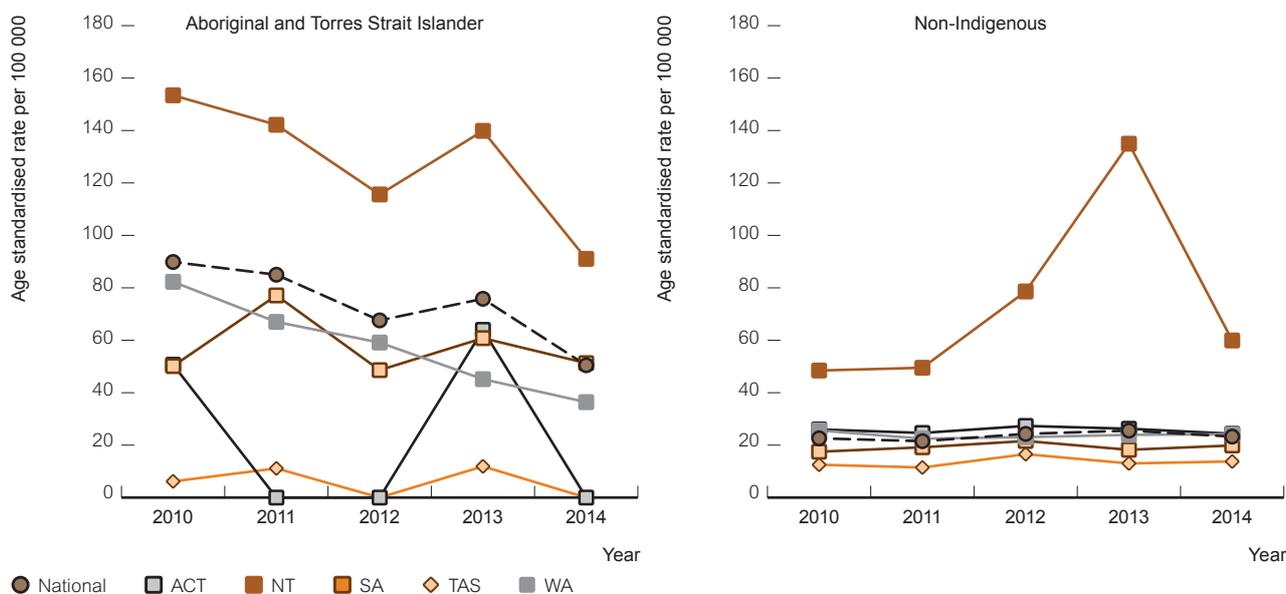
Figure 38 Newly diagnosed hepatitis B notification rate per 100 000, 2010 – 2014, in Aboriginal and Torres Strait Islander peoples, by age group



Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In the five-year period 2010 – 2014, rates of newly diagnosed hepatitis B infection were highest in the Northern Territory among both Aboriginal and Torres Strait Islander and non-Indigenous people (Figure 39). The spike in notifications in 2013 can be attributed to the processing of irregular maritime arrival hepatitis B tests in Darwin³. Rates of newly diagnosed hepatitis B infection among the Aboriginal and Torres Strait Islander population declined in the Northern Territory (from 153 per 100 000 in 2010 to 91 per 100 000 in 2014), and in Western Australia (from 82 in 2010 to 36 in 2014) (Figure 39).

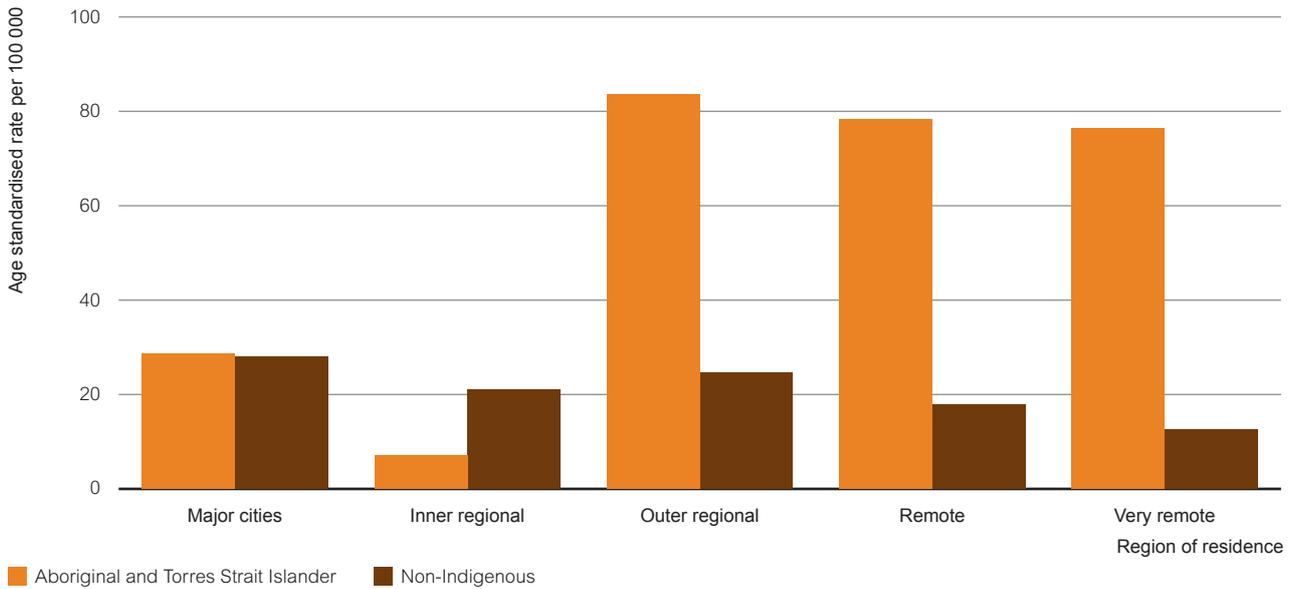
Figure 39 Newly diagnosed hepatitis B notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and State/Territory



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogue 3101051 – 3101058; 3100DO003_201212;32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In 2014, rates of newly diagnosed hepatitis B infection in the Aboriginal and Torres Strait Islander population were similar to or lower than rates in the non-Indigenous population in major cities and inner regional areas of residence. In outer regional, remote and very remote areas of residence rates newly diagnosed hepatitis B infection in the Aboriginal and Torres Strait Islander population were 3, 4 and 6 times higher than the non-Indigenous population, respectively (Figure 40).

Figure 40 Newly diagnosed hepatitis B notification rate per 100 000, 2014, by Aboriginal and Torres Strait Islander status and area of residence

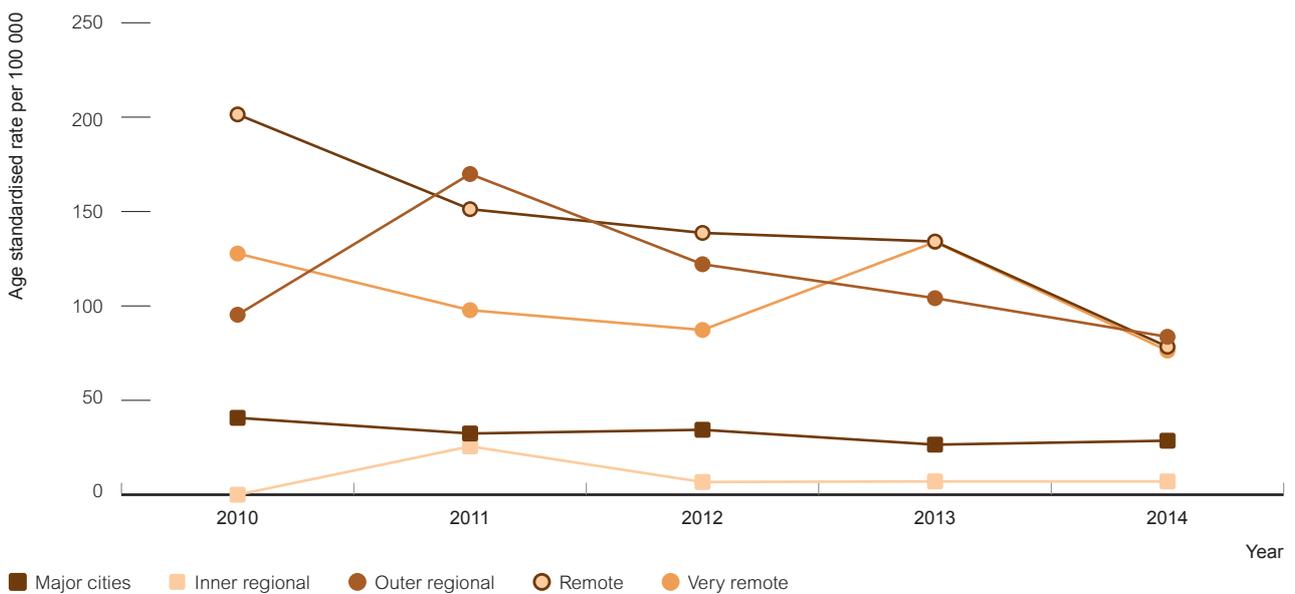


Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Rates of hepatitis B notification among Aboriginal and Torres Strait Islander peoples are highest in remote, very remote, and outer regional areas of residence, and have decreased in remote areas in the past five years (201 per 100 000 in 2010 to 78 per 100 000 in 2014) (Figure 41).



Figure 41 Newly diagnosed hepatitis B notification rate per 100 000, 2010 – 2014, in Aboriginal and Torres Strait Islander peoples, by area of residence



Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Newly acquired hepatitis B infection

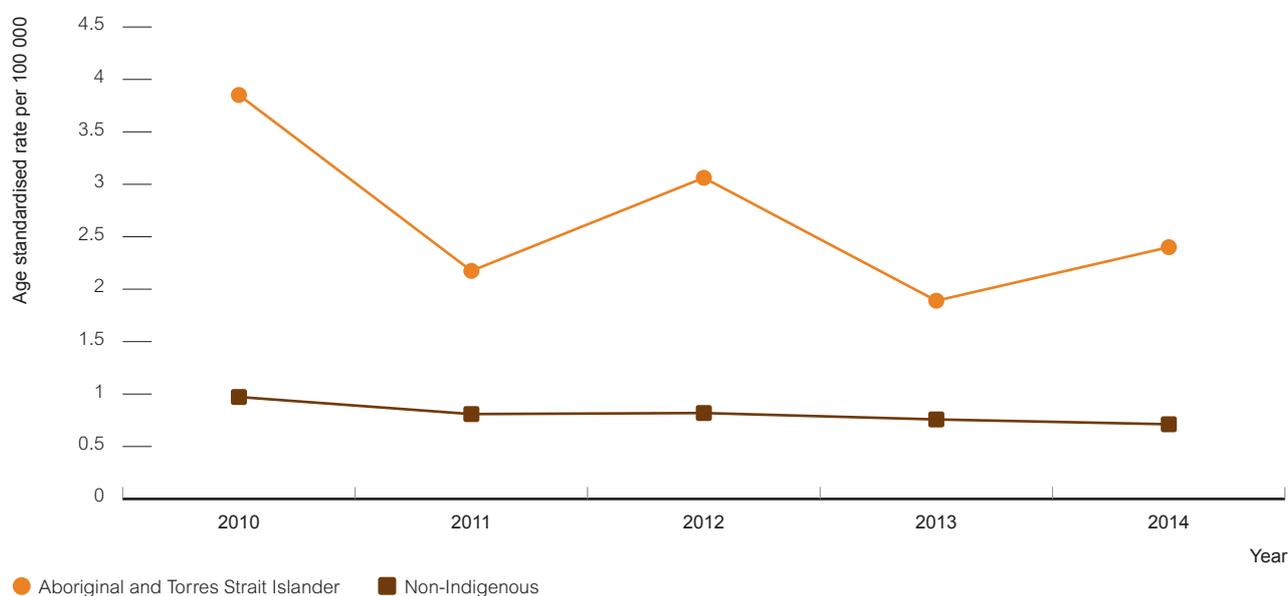
This section focuses on newly acquired hepatitis B infection. Newly acquired hepatitis B infection is defined as newly diagnosed hepatitis B infection in a person previously known not to have the infection within the last two years.

Information on Aboriginal and Torres Strait Islander status was reported for more than 50% of notifications of newly acquired hepatitis B infection in all jurisdictions.

In 2014, 14 notifications of newly acquired hepatitis B infection were diagnosed in the Aboriginal and Torres Strait Islander population and 161 in the non-Indigenous population (Figure 44).

In the five-year period 2010 – 2014 the rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population fluctuated between 2 and 4 per 100 000, and was stable at around 1 per 100 000 in the non-Indigenous population over the same time period (Figure 42).

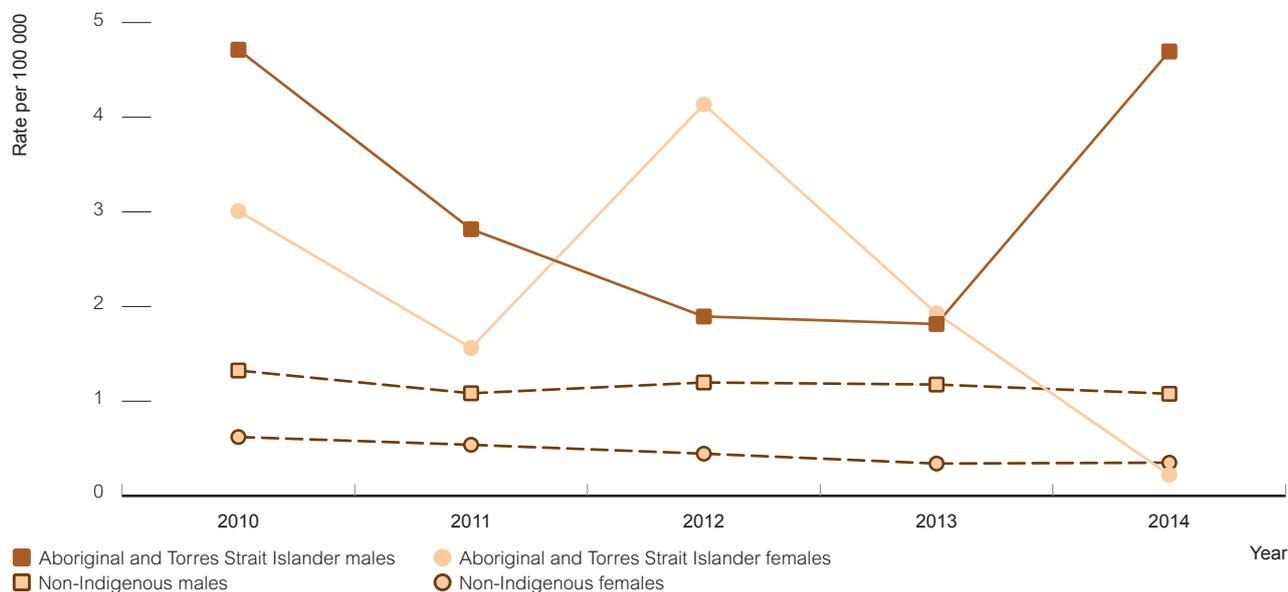
Figure 42 Newly acquired hepatitis B notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status



Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (ACT, NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

The rate of newly acquired hepatitis B infection in males and females in the Aboriginal and Torres Strait Islander population was higher than the non-Indigenous population, (except for females in 2014) (Figure 43)

Figure 43 Newly acquired hepatitis B notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and sex

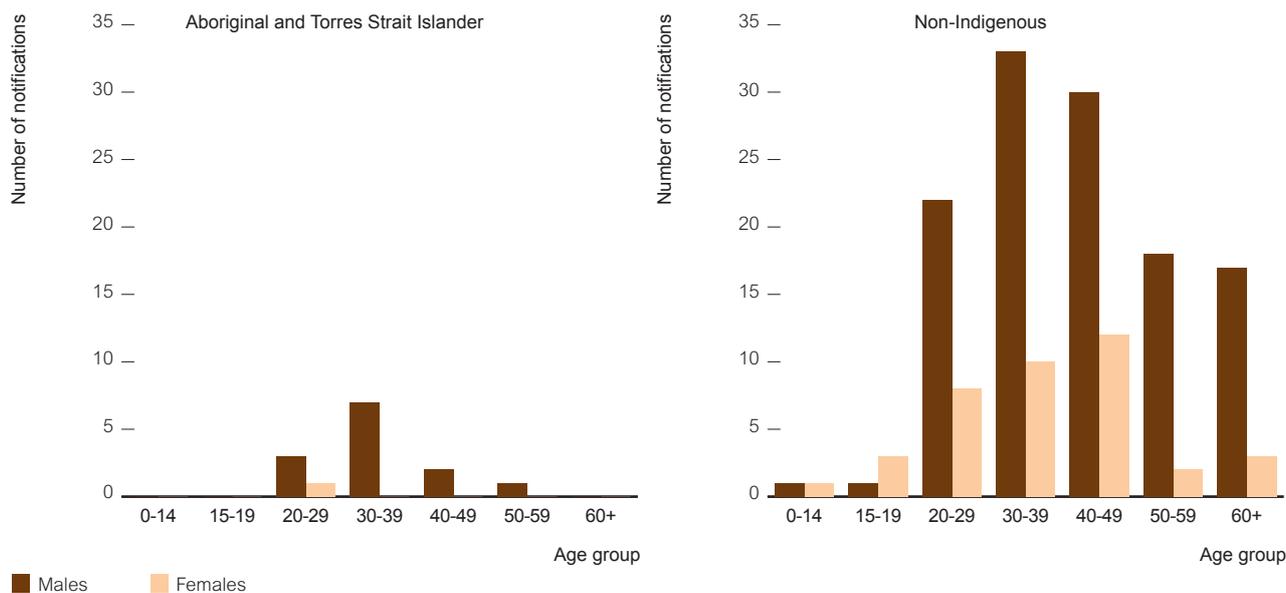


Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (ACT, NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year



In 2014, the male to female ratio of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population was 13:1 compared with 3:1 in the non-Indigenous population (Figure 44).

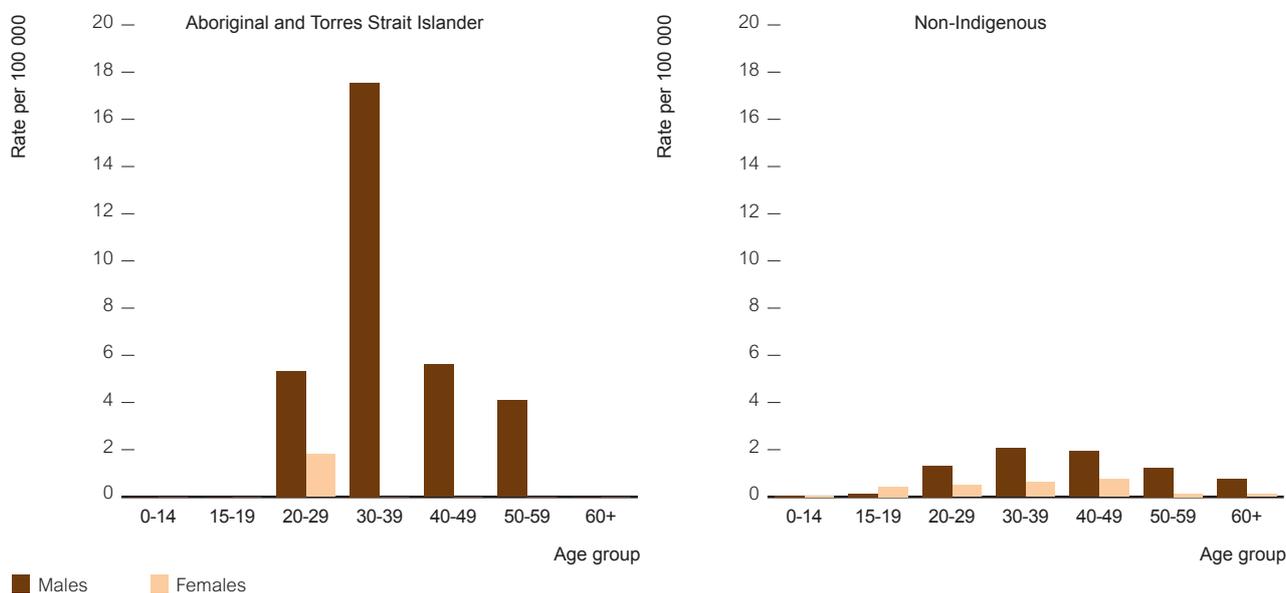
Figure 44 Number of newly acquired hepatitis B notifications, 2014, by Aboriginal and Torres Strait Islander status



Source: Australian National Notifiable Disease System; ABS Catalogues: 3101051 – 3101058; Includes jurisdictions (ACT, NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In 2014, the notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander male population was higher than the rate in the non-Indigenous population in all age groups (Figure 45).

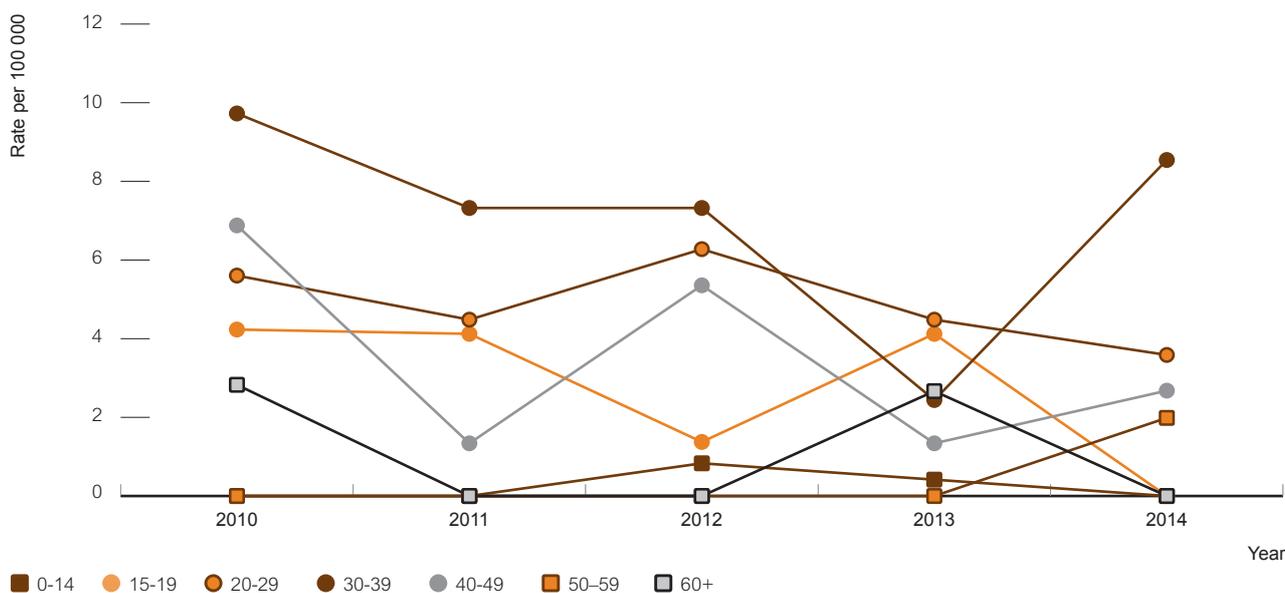
Figure 45 Newly acquired hepatitis B notification rate per 100 000, 2014, by Aboriginal and Torres Strait Islander status, sex, and age group



Source: Australian National Notifiable Disease System; ABS Catalogues: 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (ACT, NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Between 2010 and 2014, the notification rate of newly acquired hepatitis B infection in the Aboriginal and Torres Strait Islander population fluctuated according to age groups (Figure 46). The rate was highest in 30 – 39 year olds in all years except for 2013.

Figure 46 Newly acquired hepatitis B notification rate per 100 000, 2010 – 2014, in Aboriginal and Torres Strait Islander peoples, by age group

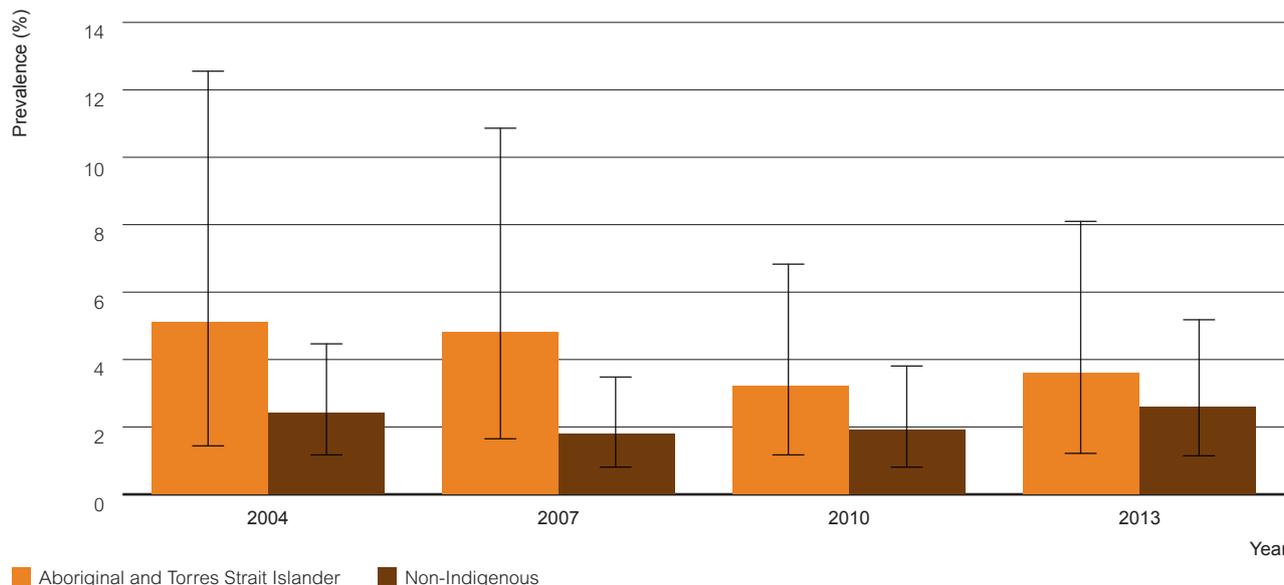


Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (ACT, NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In a survey conducted every three years in a sample of incoming prisoners, hepatitis B prevalence was higher in Aboriginal and Torres Strait Islander peoples than in non-Indigenous people (Figure 47). In the 2013 survey, the prevalence of hepatitis B was 3.6% in Aboriginal and Torres Strait Islander peoples and 2.6% in non-Indigenous people with the wide confidence intervals reflecting the small sample size.

Hepatitis B prevalence in the general Aboriginal and Torres Strait Islander population is estimated to be 3.7% (see *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2015* for further detail).

Figure 47 Hepatitis B surface antigen prevalence among a sample of incoming Australian prisoners, by year of survey and Aboriginal and Torres Strait Islander status



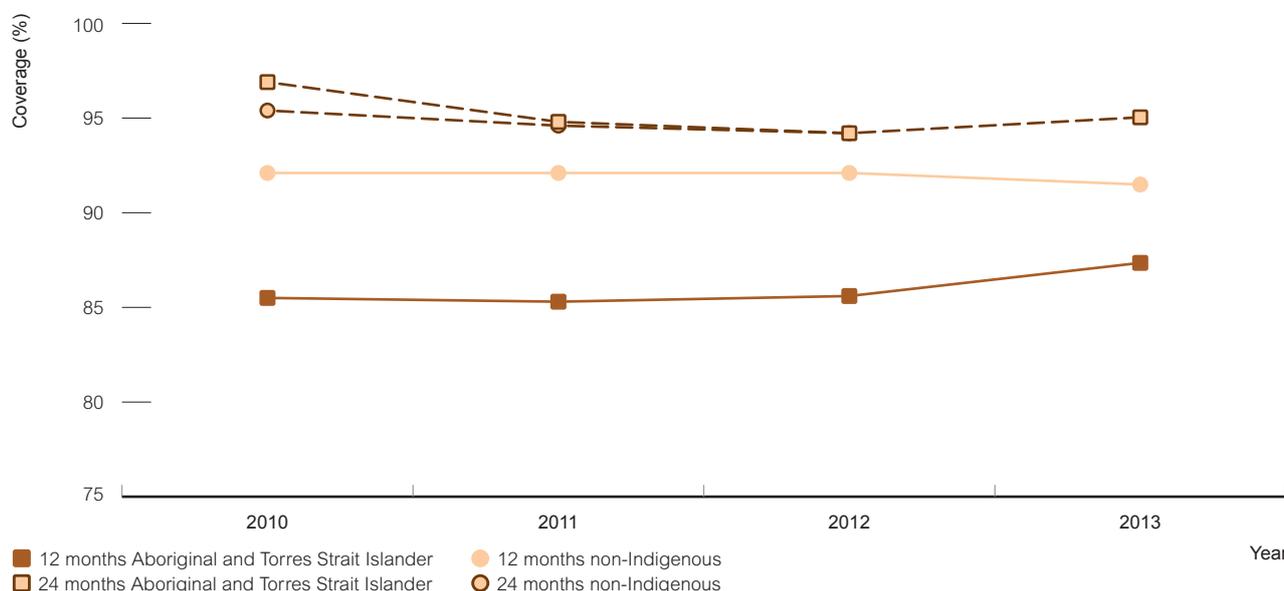
Source: National Prison Entrants' Bloodborne Virus Survey, 2004, 2007, 2010, and 2013



Vaccination

In 2010 – 2013, hepatitis B immunisation coverage rates were lower for Aboriginal and Torres Strait Islander children than non-Indigenous children for the 12 months age group, with little or no difference at 24 months of age (Figure 48). The lower rates at 12 months suggest issues around timeliness of completion of the course of vaccinations in Aboriginal and Torres Strait Islander children, which may lead to increased risk of disease acquisition.

Figure 48 Hepatitis B vaccination coverage estimates at 12 and 24 months, 2010 – 2013, by Aboriginal and Torres Strait Islander status



Source: National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases

Main Findings

Sexually transmissible infections

Chlamydia

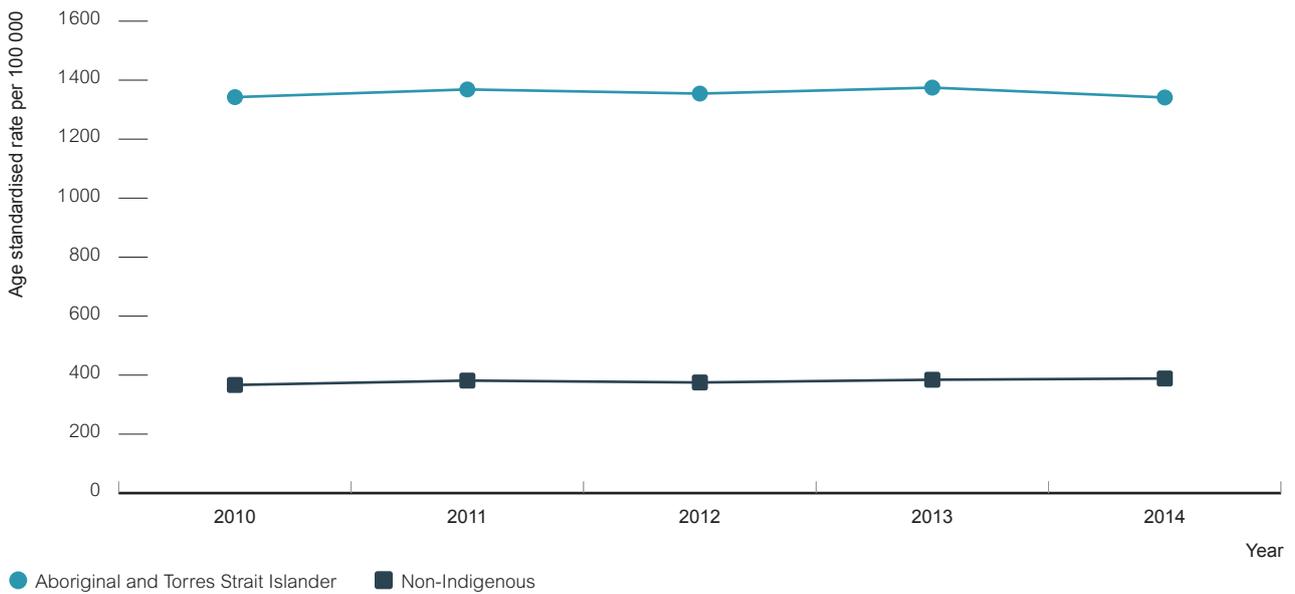
- Chlamydia continues to be the most frequently reported notifiable condition in Australia in 2014. There were a total of 86 136 notifications in 2014, 6 641 (8%) were among the Aboriginal and Torres Strait Islander population, 25 365 (29%) were among the non-Indigenous population and Indigenous status was not reported for 54 130 (63%) notifications.
- The chlamydia notification rate for the Aboriginal and Torres Strait Islander population of 1 341 per 100 000 in 2014, was 3 times that of the non-Indigenous notification rate at 389 per 100 000 population.
- In 2014, 80% of chlamydia notifications among the Aboriginal and Torres Strait islander population, and 78% among the non-Indigenous population were in 15 – 29 year olds.
- The chlamydia notification rate in Australia in both the Aboriginal and Torres Strait Islander and non-Indigenous populations has remained stable since 2010, with variation by jurisdiction.
- In major cities, the chlamydia notification rate in the Aboriginal and Torres Strait Islander population was 2 times higher than that among the non-Indigenous population, increasing to 7 times higher in remote areas.
- The higher chlamydia rates in the Aboriginal and Torres Strait Islander population as compared with the non-Indigenous population emphasise the need for higher coverage of testing and treatment in this population.

Chlamydia continues to be the most frequently reported notifiable condition in Australia in 2014. There were a total of 86 136 notifications in 2014, of these 6 641 (8%) were among Aboriginal and Torres Strait Islander peoples, 25 365 (29%) were among the non-Indigenous population and Indigenous status was not reported for 54 130 (63%) cases.

In the period 2010 – 2014, Aboriginal and Torres Strait Islander status was not reported for more than 50% of notifications each year in the Australian Capital Territory, New South Wales, Tasmania and Victoria and as such notification data for chlamydia excludes these jurisdictions. Hereinafter, notification data for the period 2010 – 2014 refers to the Northern Territory, Queensland, South Australia, and Western Australia.

The chlamydia notification rate for the Aboriginal and Torres Strait Islander population in 2014 of 1 341 per 100 000 population was more than 3 times that of the non-Indigenous population at 389 per 100 000 population. Since 2010, the notification rate of chlamydia in both the Aboriginal and Torres Strait Islander population and the non-Indigenous population has remained stable (Figure 49).

Figure 49 Chlamydia notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status

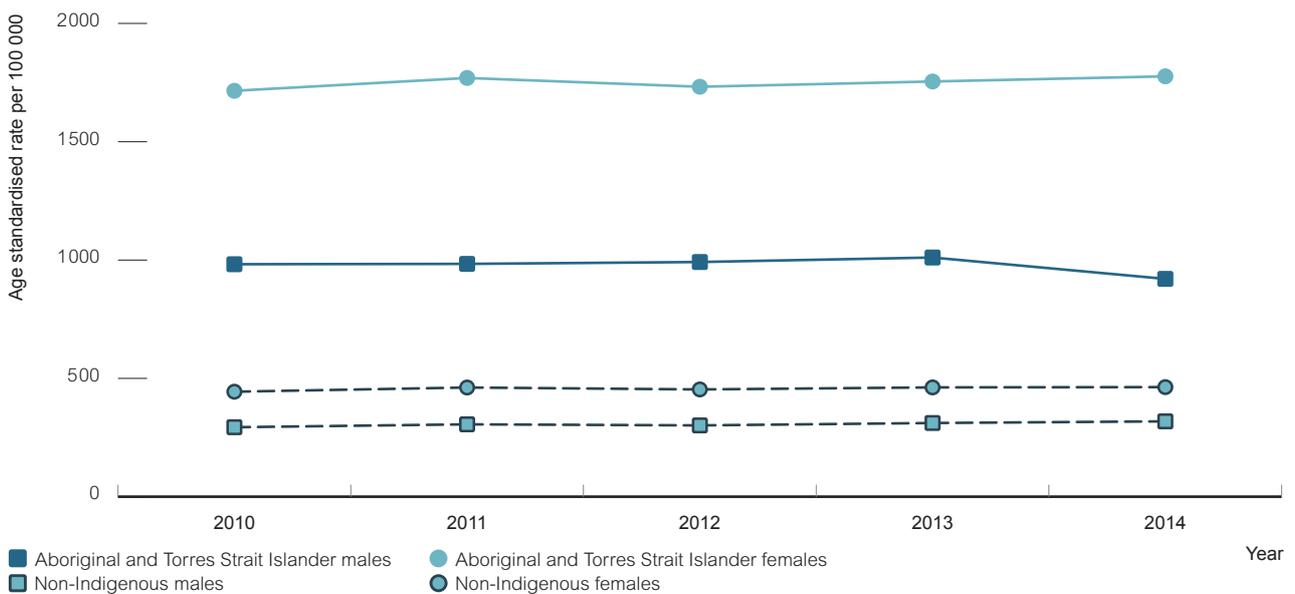


Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (NT, QLD, SA, WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Between 2010 and 2014 the chlamydia notification rate for the Aboriginal and Torres Strait Islander population has remained highest among Aboriginal and Torres Strait Islander females, at 1 715 per 100 000 in 2010 and 1 776 per 100 000 in 2014 and 4 times higher compared to non-Indigenous females (444 per 100 000 in 2010 and 463 per 100 000 in 2014) (Figure 50). Rates among males were also 3 times higher in Aboriginal and Torres Strait Islander males in 2014 compared to non-Indigenous males (920 per 100 000 compared to 318 per 100 000) (Figure 50).



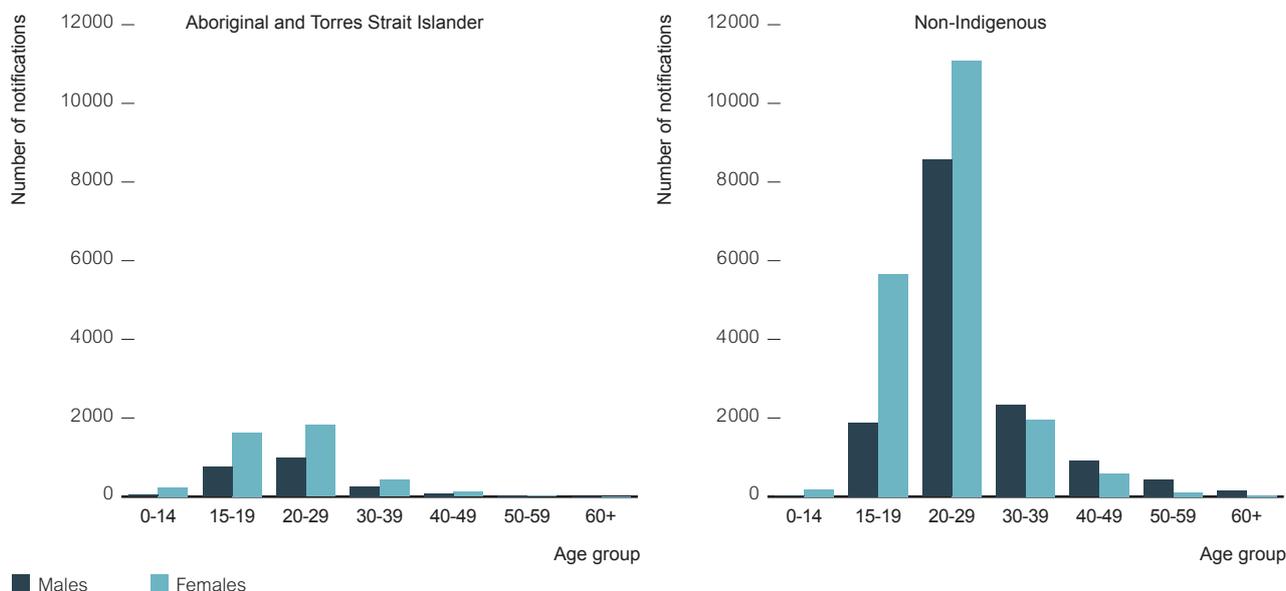
Figure 50 Chlamydia notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and sex



Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (NT, QLD, SA, WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Chlamydia diagnoses are notified predominantly among young people. In 2014, 80% of chlamydia notifications among the Aboriginal and Torres Strait Islander population, and 78% among the non-Indigenous population were in 15 – 29 year olds. In 2014, of the chlamydia diagnoses in the Aboriginal and Torres Strait Islander population, 2 149 and 4 263 were among males and females respectively, providing a male to female ratio of 0.5:1 compared to 0.7:1 in the non-Indigenous population (Figure 51).

Figure 51 Number of chlamydia notifications in 2014, by Aboriginal and Torres Strait Islander status, sex and age group



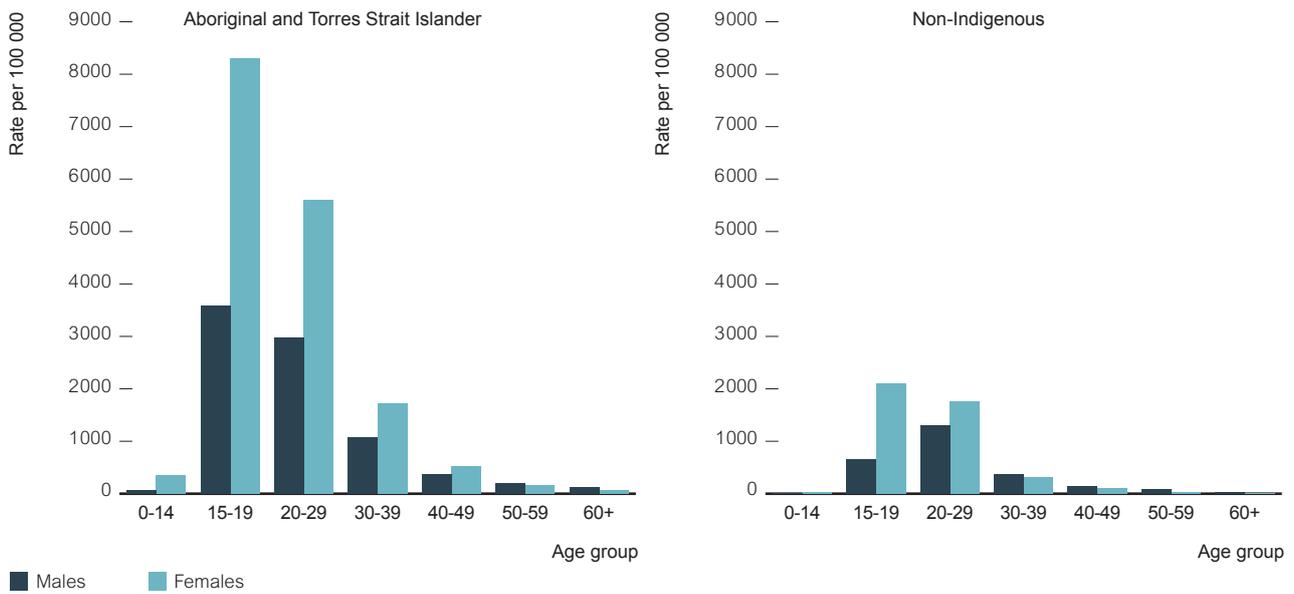
Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (NT, QLD, SA, WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

The chlamydia notification rate in the Aboriginal and Torres Strait Islander population in the 15 – 19 and the 20 – 29 year age groups in 2014 was 4 times and 3 times higher respectively, than in the non-Indigenous population (Figure 52). The highest notification rates were in Aboriginal and Torres Strait Islander females, particularly in the 15 – 19 year old age group (8 310 notifications per 100 000) which was 4 times greater than the same age group in the non-Indigenous population. The notification rate in the 15 – 19 year old Aboriginal and Torres Strait Islander male population was 5 times higher than the non-Indigenous population (Figure 52).

The higher notification rates in Aboriginal and Torres Strait Islander females aged 15 – 19 and 20 – 29 years than non-Indigenous females of the same age mainly reflect a greater disease burden but also potentially greater levels of testing.

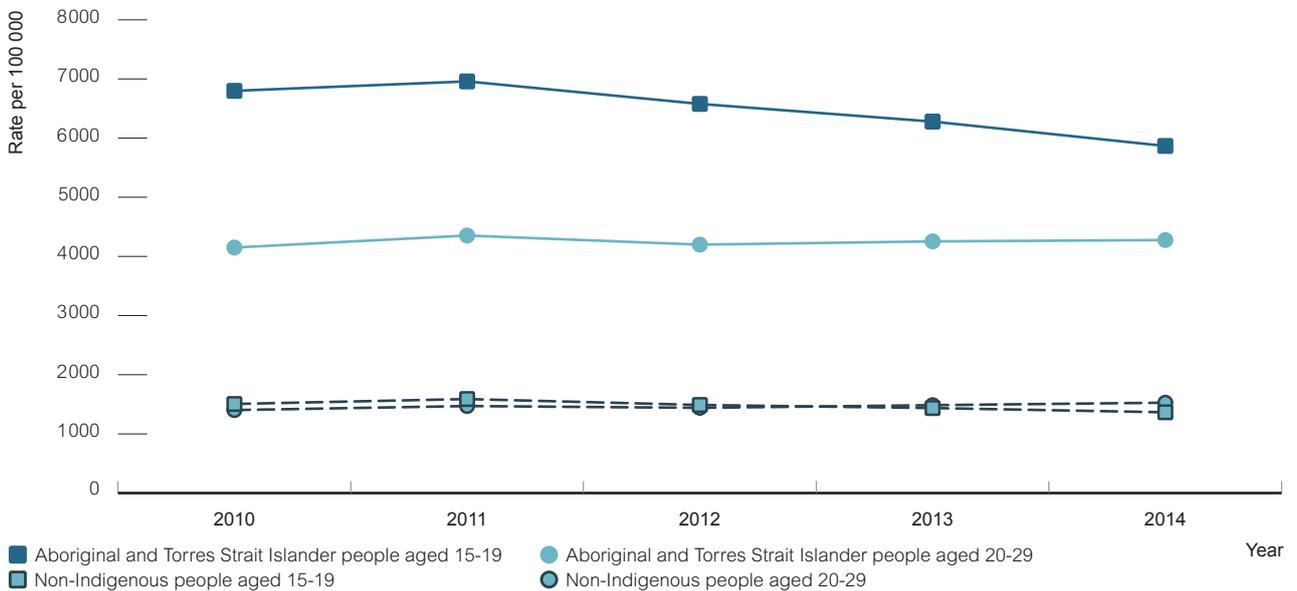
From 2010 – 2014, the chlamydia notification rate in the Aboriginal and Torres Strait Islander population in the 15 – 19 year old age group increased between 2010 – 2011, but then declined between 2011 – 2014 (Figure 53).

Figure 52 Chlamydia notification rate per 100 000 in 2014, by Aboriginal and Torres Strait Islander status, sex and age group



Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (NT, QLD, SA, WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Figure 53 Chlamydia notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and select age groups

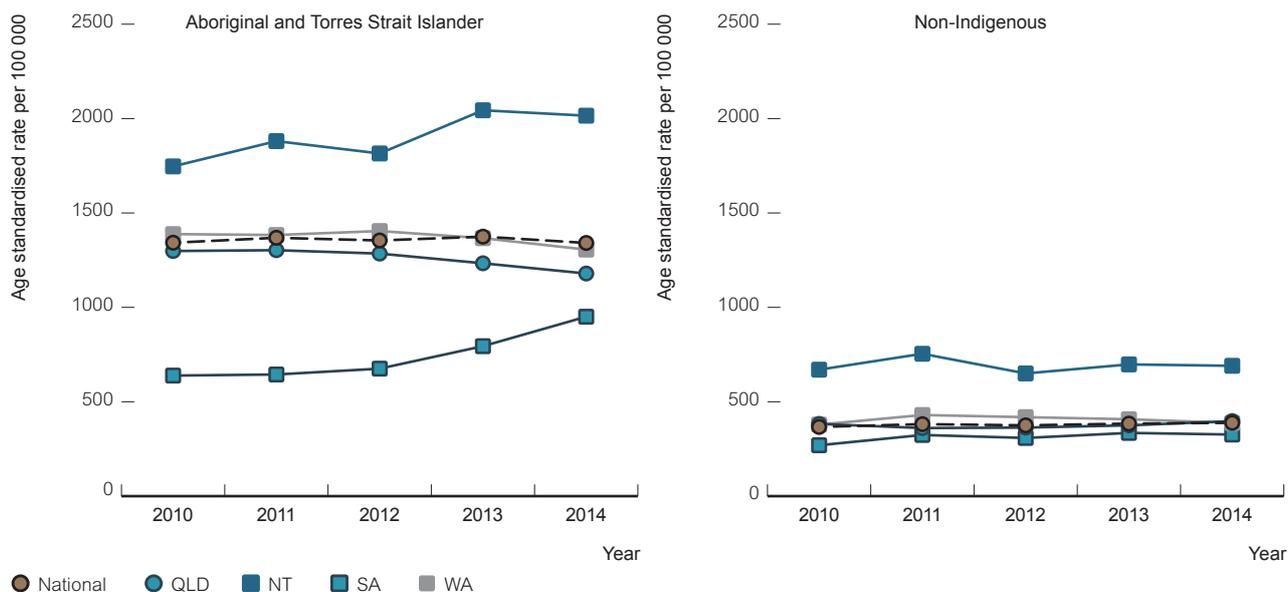


Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (NT, QLD, SA, WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year



The chlamydia notification rate from 2010 – 2014 in the Aboriginal and Torres Strait Islander population was highest in the Northern Territory (Figure 54). Over the recent five years, in South Australia the chlamydia notification rate increased by 49% (from 639 per 100 000 in 2010 to 951 per 100 000 in 2014); in the Northern Territory it increased by 15% (from 1 747 in 2010 to 2 015 per 100 000 in 2014) in Queensland it decreased by 9% (from 1 299 in 2010 to 1 179 per 100 000 in 2014); and in Western Australia it decreased by 6% (from 1 388 in 2010 to 1 306 per 100 000 in 2014). The increase in some jurisdictions may reflect increased testing.

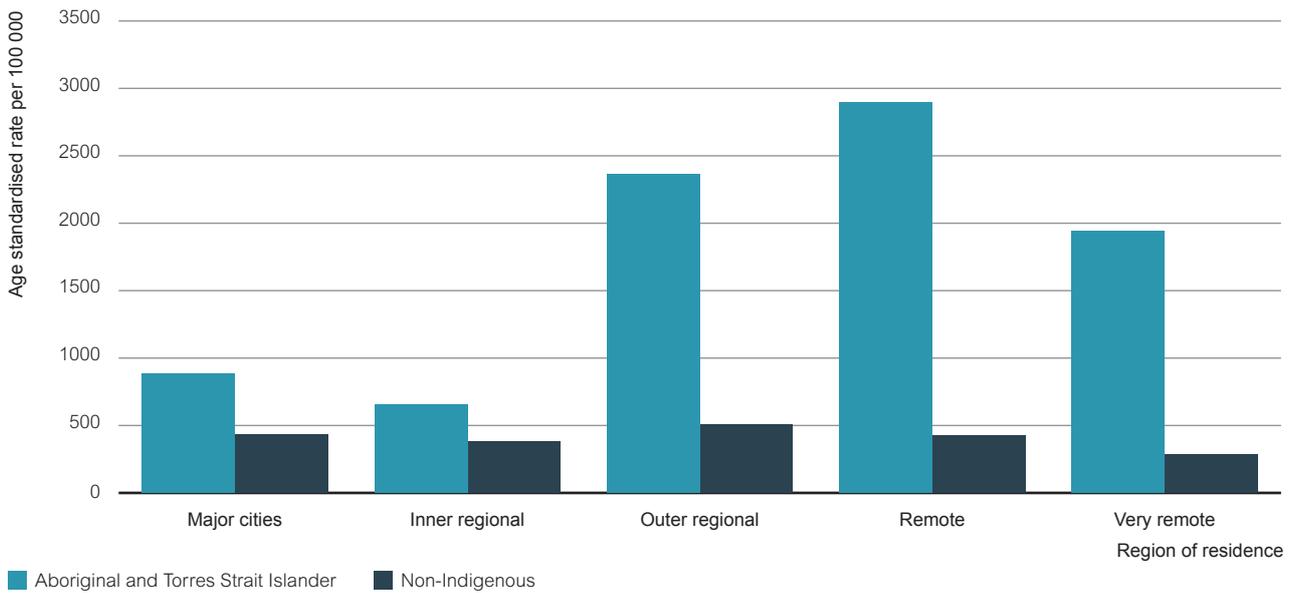
Figure 54 Chlamydia notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and State/Territory



Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (NT, QLD, SA, WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

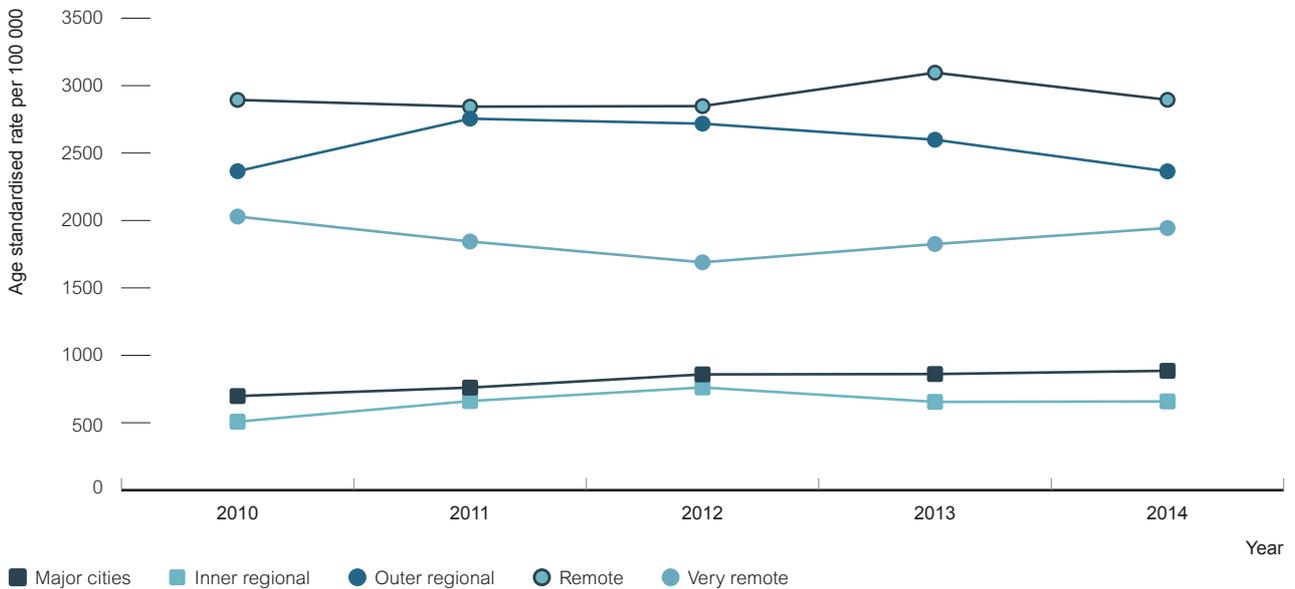
In 2014, the chlamydia notification rate in the Aboriginal and Torres Strait Islander population resident in major cities was 2 times higher than the rate in the non-Indigenous population (885 per 100 000 compared with 431 per 100 000); 2 times higher in inner regional centres; 5 times higher in outer regional areas; 7 times higher in remote areas and 7 times higher in very remote areas (Figure 55). There were no major changes in chlamydia notification rate by area of residence in the Aboriginal and Torres Strait Islander population (Figure 56).

Figure 55 Chlamydia notification rate per 100 000 in 2014, by Aboriginal and Torres Strait Islander status and area of residence



Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (NT, QLD, SA, WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Figure 56 Chlamydia notification rate per 100 000, 2010 – 2014, by area of residence



Source: Australian National Notifiable Diseases Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (NT, QLD, SA, WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Gonorrhoea

- There were a total of 15 786 notifications of gonorrhoea in Australia in 2014; 3 584 (23%) were among the Aboriginal and Torres Strait Islander population, 6 915 (44%) among the non-Indigenous population and Indigenous status was not reported for 5 287 (33%) diagnoses.
- In 2014, the gonorrhoea rate in the Aboriginal and Torres Strait Islander population was 18 times that of the non-Indigenous population (859 vs. 49 per 100 000 population), increasing to 69 times higher in remote areas.
- In 2014, 71% of cases among the Aboriginal and Torres Strait Islander population were diagnosed among people in the age group 15 – 29 years compared with 56% in the non-Indigenous population.
- In the period 2011 – 2014, the gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population has declined by 18% in the 15 – 19 age groups and 18% in the 20 – 24 year old age groups.
- In Aboriginal and Torres Strait Islander people, there were roughly an equal number of gonorrhoea diagnoses among males and females in 2014, indicating predominantly heterosexual transmission, and most resided in remote areas.
- In contrast, gonorrhoea diagnoses in non-Indigenous people in 2014 were predominantly in men, in urban settings, suggesting that transmission is primarily related to sex between men.

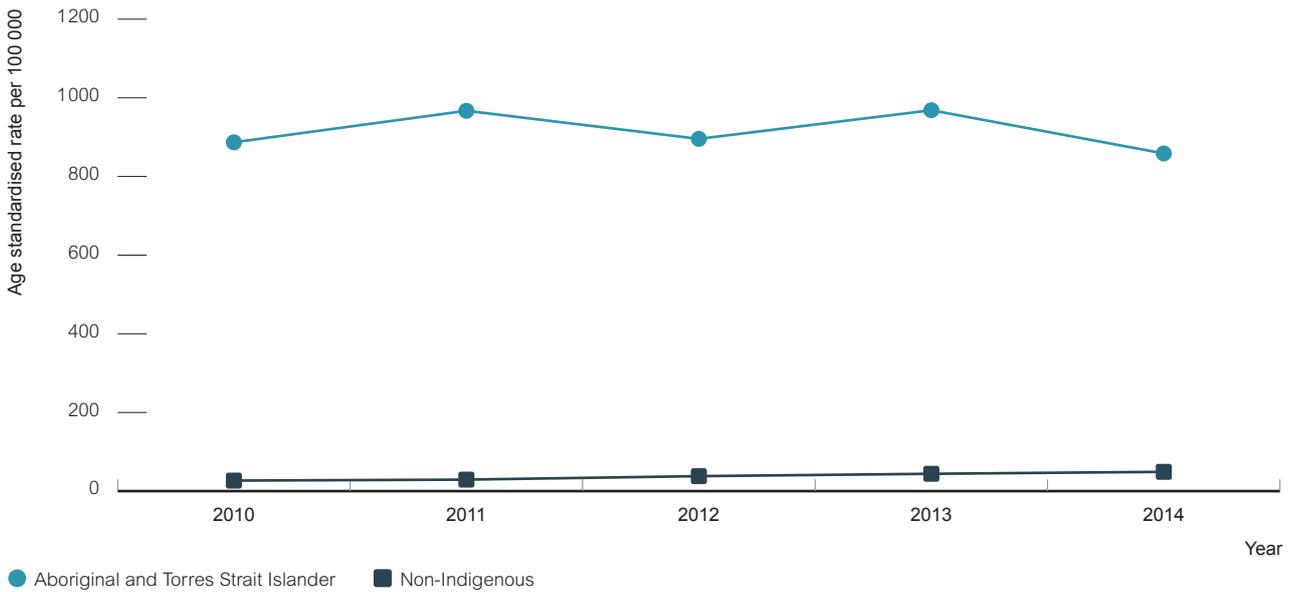
Of 15 786 gonorrhoea notifications in 2014; 6 915 (44%) were in the non-Indigenous population, 3 584 (23%) in the Aboriginal and Torres Strait Islander population and Indigenous status was not reported for 5 287 (33%) notifications.

In the period 2010 – 2014, Aboriginal and Torres Strait Islander status was not reported for more than 50% of notifications per year in New South Wales and Queensland, and as such, notification data for gonorrhoea excludes these jurisdictions. Hereinafter, notification data for the period 2010 – 2014 refers to the Northern Territory, South Australia, Tasmania, Victoria, the Australian Capital Territory and Western Australia.

The gonorrhoea notification rate for the Aboriginal and Torres Strait Islander population in 2014 of 859 per 100 000 population was 18 times that of the non-Indigenous population at 49 per 100 000 population. Since 2010, the gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population has fluctuated but increased in the non-Indigenous population by 81% (from 27 per 100 000 in 2010 to 49 per 100 000 in 2014) (Figure 57).

The increase in gonorrhoea notifications in the non-Indigenous population may be influenced by the move toward routine duplex testing. In the past five years most laboratories have switched to using dual chlamydia and gonorrhoea tests where if a chlamydia test was ordered, a gonorrhoea test would be conducted automatically. The emphasis on testing for chlamydia in young people has therefore led to a substantial rise in the number of tests conducted for gonorrhoea, which may explain the increase in diagnoses.

Figure 57 Gonorrhoea notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status

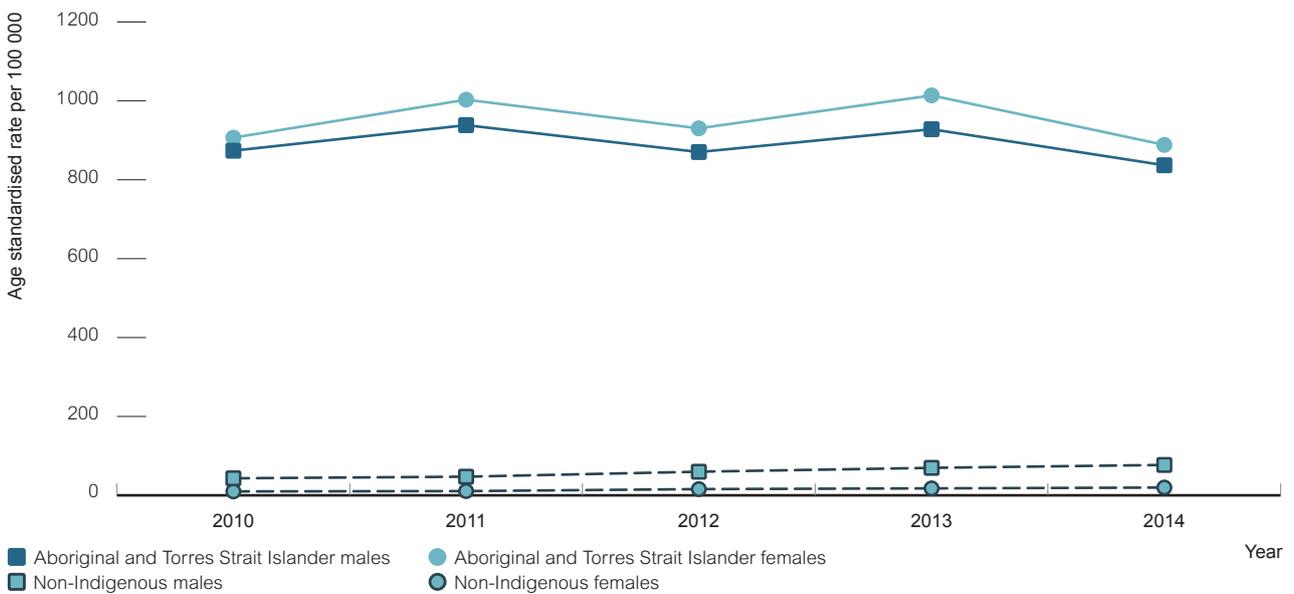


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

The gonorrhoea notification rate for the Aboriginal and Torres Strait Islander female population in 2014 of 888 per 100 000 was 45 times that of the non-Indigenous population at 20 per 100 000 population (Figure 58). The gonorrhoea notification rate for the Aboriginal and Torres Strait Islander male population in 2014 of 837 per 100 000 population was 11 times that of the non-Indigenous population at 77 per 100 000 population (Figure 58).



Figure 58 Gonorrhoea notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and sex

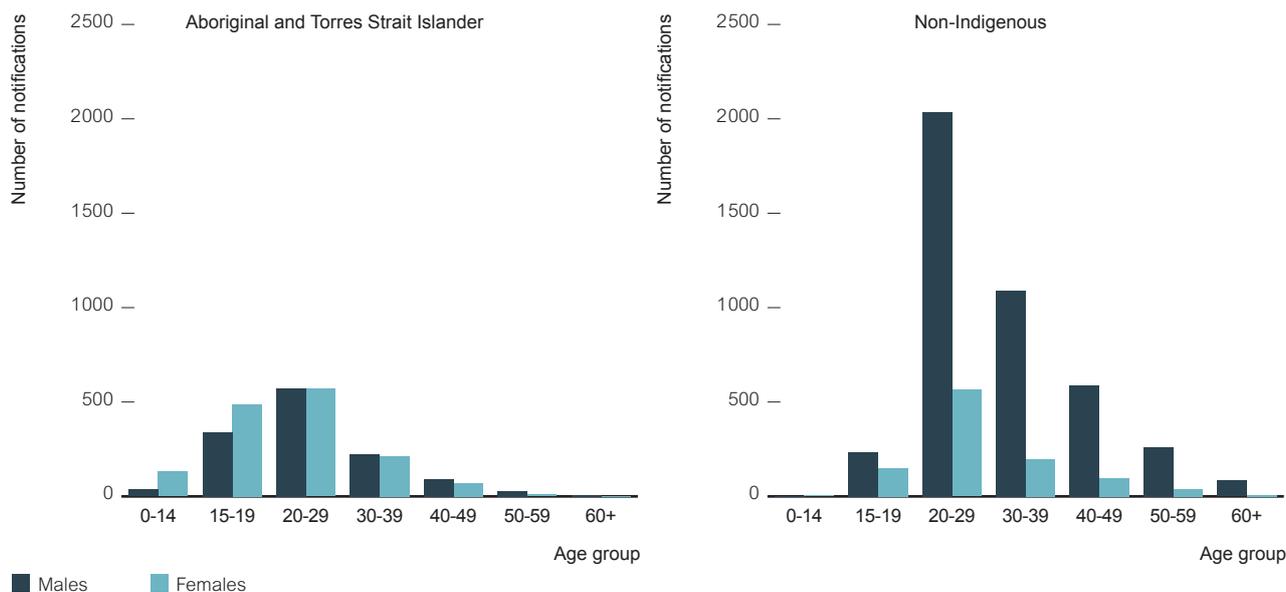


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Differences in age at diagnosis exist between the Aboriginal and Torres Strait Islander population and the non-Indigenous population. In 2014, 40% of gonorrhoea notifications among the Aboriginal and Torres Strait Islander population were in 20 – 29 year olds and 30% in 15 – 19 year olds, compared with 49% and 7% in the respective age groups in the non-Indigenous population (Figure 59).

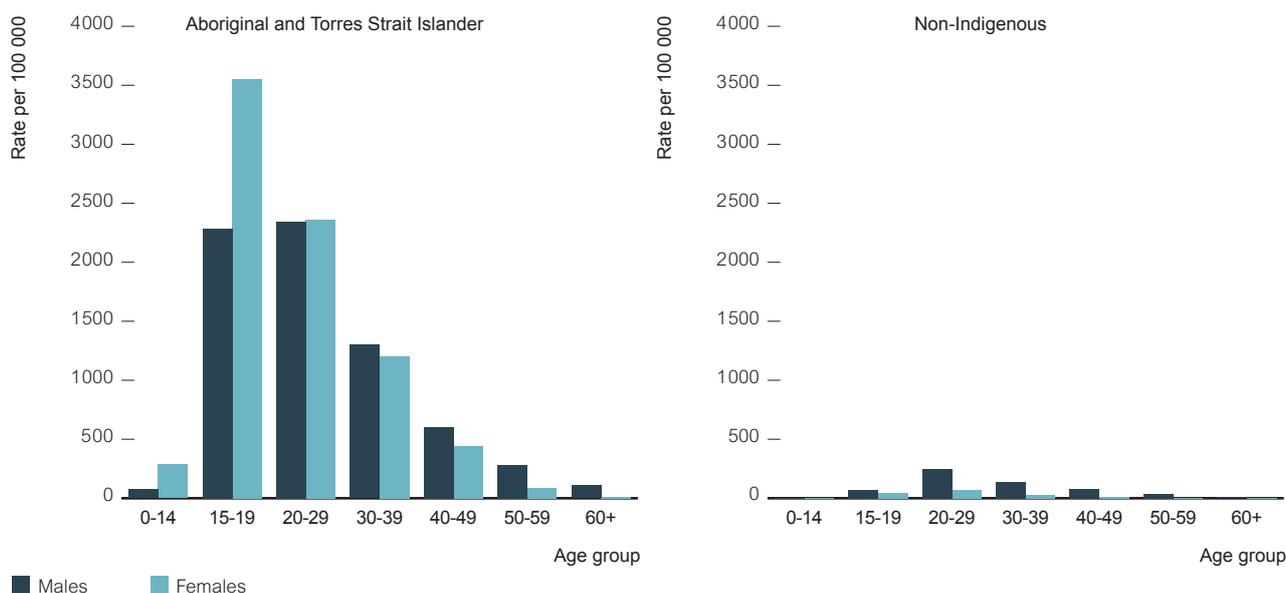
In 2014, 1 293 and 1 485 notifications of gonorrhoea were made among Aboriginal and Torres Strait Islander males and females respectively, giving a male to female ratio of 0.8:1 suggesting transmission predominantly through heterosexual sex (Figure 59). In comparison, there were 4 292 notifications of gonorrhoea in males and 1 051 in females in the non-Indigenous population in 2014; giving a male to female ratio of 4:1, suggesting transmission occurring predominantly by sex between males (Figure 59). Notification rates in the Aboriginal and Torres Strait Islander population were significantly higher across all age groups for both males and females (Figure 60).

Figure 59 Number of gonorrhoea notifications in 2014, by Aboriginal and Torres Strait Islander status, sex and age group



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

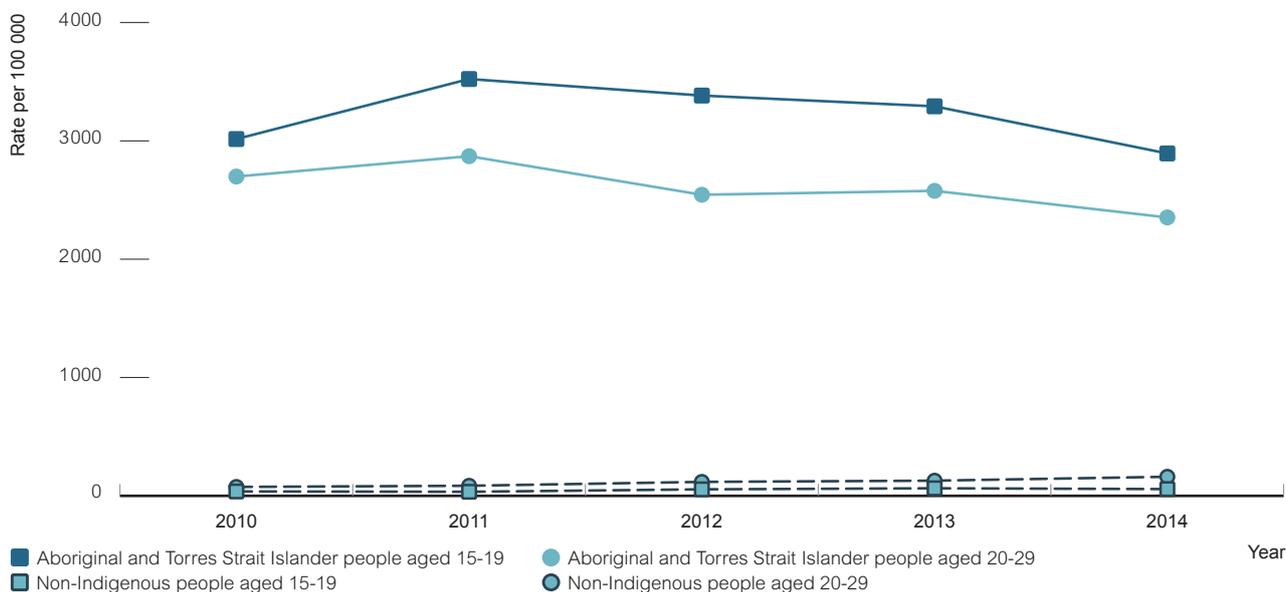
Figure 60 Gonorrhoea notification rate per 100 000 in 2014, by Aboriginal and Torres Strait Islander status, sex and age group



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Since 2011, the gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population has declined by 18% in both the 15 – 19 age groups and the 20 – 29 year age groups (Figure 61).

Figure 61 Gonorrhoea notification rate per 100 000 in selected age groups, 2010 – 2014, by Aboriginal and Torres Strait Islander status

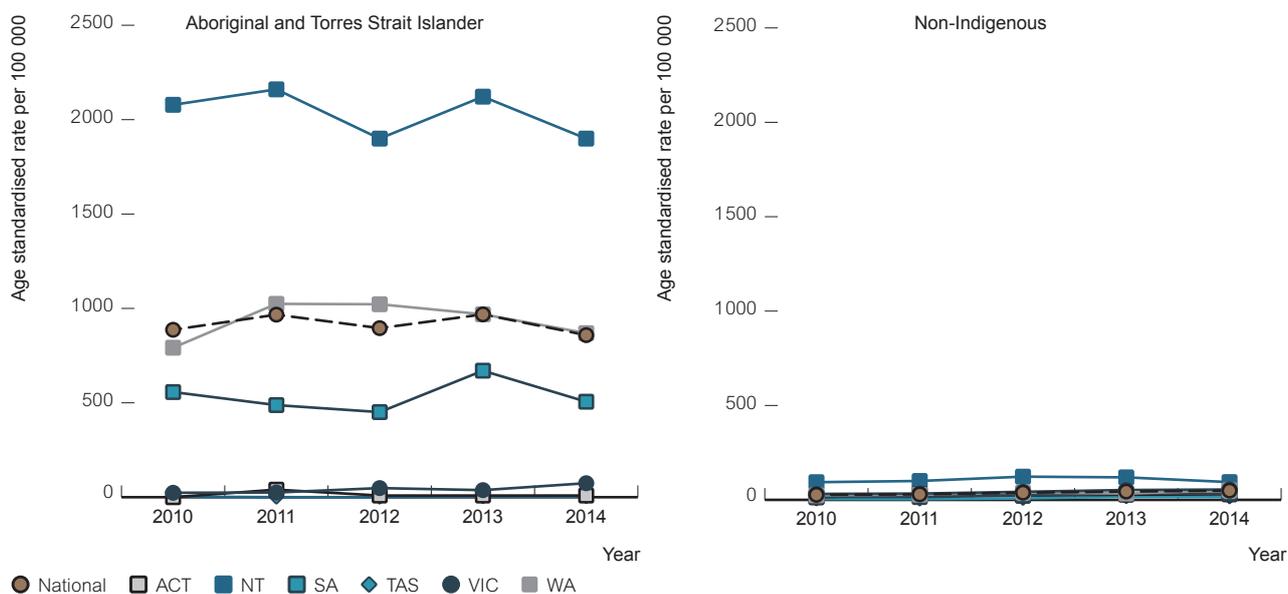


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year



From 2010 – 2014, the gonorrhoea notification rate in the Aboriginal and Torres Strait Islander population was highest in the Northern Territory, followed by Western Australia, and South Australia (Figure 62).

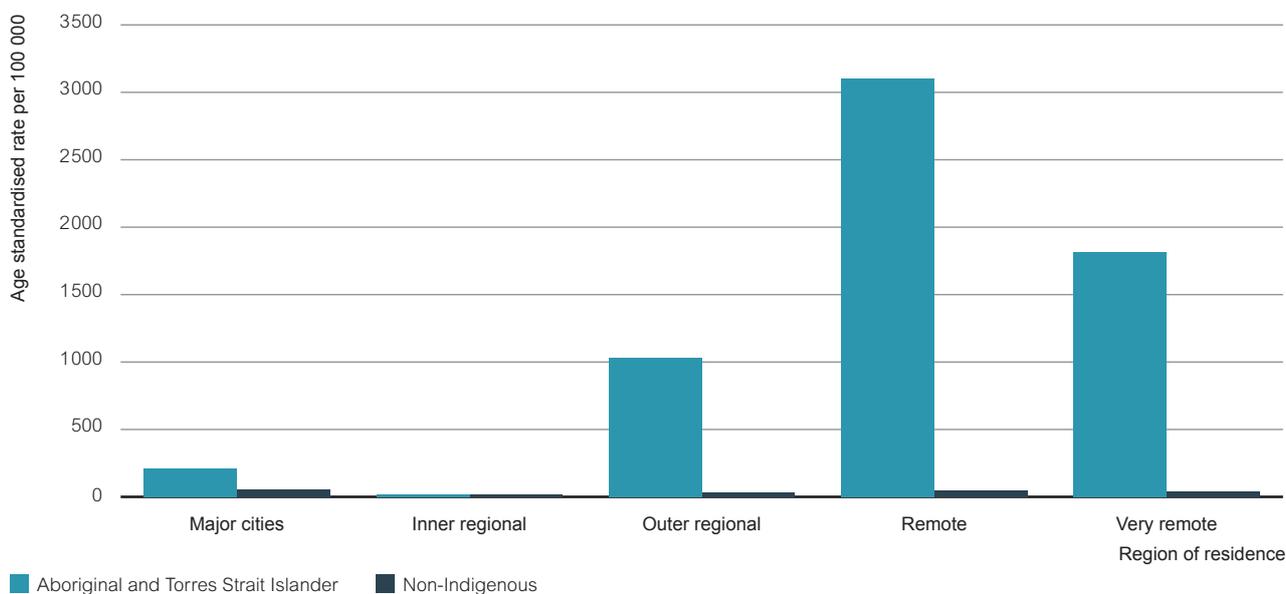
Figure 62 Gonorrhoea notification rates per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status, and State/Territory



Source: Australian National Notifiable Disease Surveillance System; 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

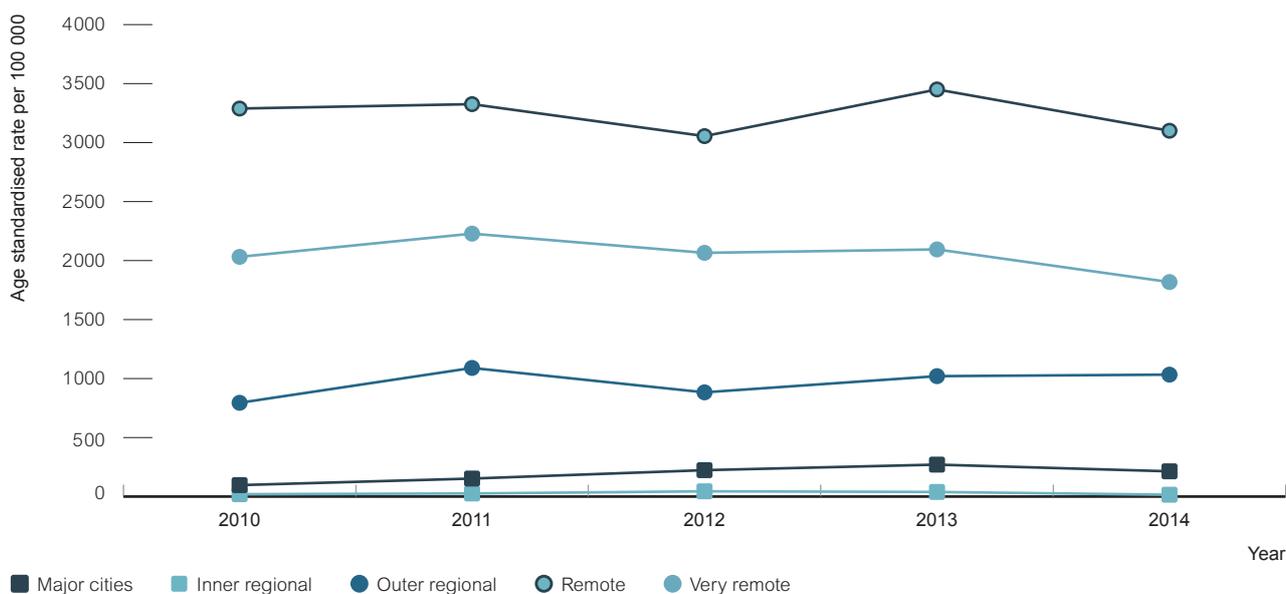
In 2014, in the Aboriginal and Torres Strait Islander population resident in major cities, outer regional, remote and very remote areas, the rate of gonorrhoea was 4 times, 31 times, 69 times, and 44 times higher than non-Indigenous population in the same areas, respectively (Figure 63). In the five-year period 2010 – 2014, there were no major changes in gonorrhoea notification rate by area of residence in the Aboriginal and Torres Strait Islander population (Figure 64).

Figure 63 Gonorrhoea notification rate per 100 000, in 2014, by Aboriginal and Torres Strait Islander status and area of residence



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Figure 64 Gonorrhoea notification rate per 100 000, 2010 – 2014, by area of residence



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NT, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Syphilis

Infectious syphilis

- There were a total of 1 999 infectious syphilis (infections <2 years duration) notifications nationally in 2014, with 235 (12%) among the Aboriginal and Torres Strait Islander population, 1 588 (79%) among the non-Indigenous population and a further 176 (9%) cases for which Indigenous status was not reported.
- In 2014, the infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population was 4 times higher than the non-Indigenous population (32 vs. 8 per 100 000 population) increasing to 300 times higher in remote areas.
- Rate of infectious syphilis notifications among the Aboriginal and Torres Strait Islander population increased in 15 – 19 year olds in 2011 (from 34 per 100 000 in 2010 to 95 per 100 000), due to an outbreak in the northern areas of Queensland, Northern Territory and Western Australia, and was 99 per 100 000 in 2014.
- Congenital syphilis cases among Aboriginal and Torres Strait Islander peoples also increased over this period, with 7 reported cases in 2011, 1 in 2012, 3 in 2013 and 5 in 2014.
- In Aboriginal and Torres Strait Islander peoples, the rate among males and females is roughly equal, indicating predominantly heterosexual transmission.
- In contrast, diagnoses in non-Indigenous peoples are predominantly in men, in urban settings, suggesting that transmission is primarily related to sex between men.
- The resurgence of infection in remote communities after years of declining rates, bringing with it cases of congenital syphilis, emphasises the need for testing and treatment in this population, particularly in antenatal settings.

STIs

Accurate and complete systems for the notification of infectious syphilis exist nationally, enabling greater than 91% of all infectious syphilis diagnoses to be notified by Aboriginal and Torres Strait Islander status.

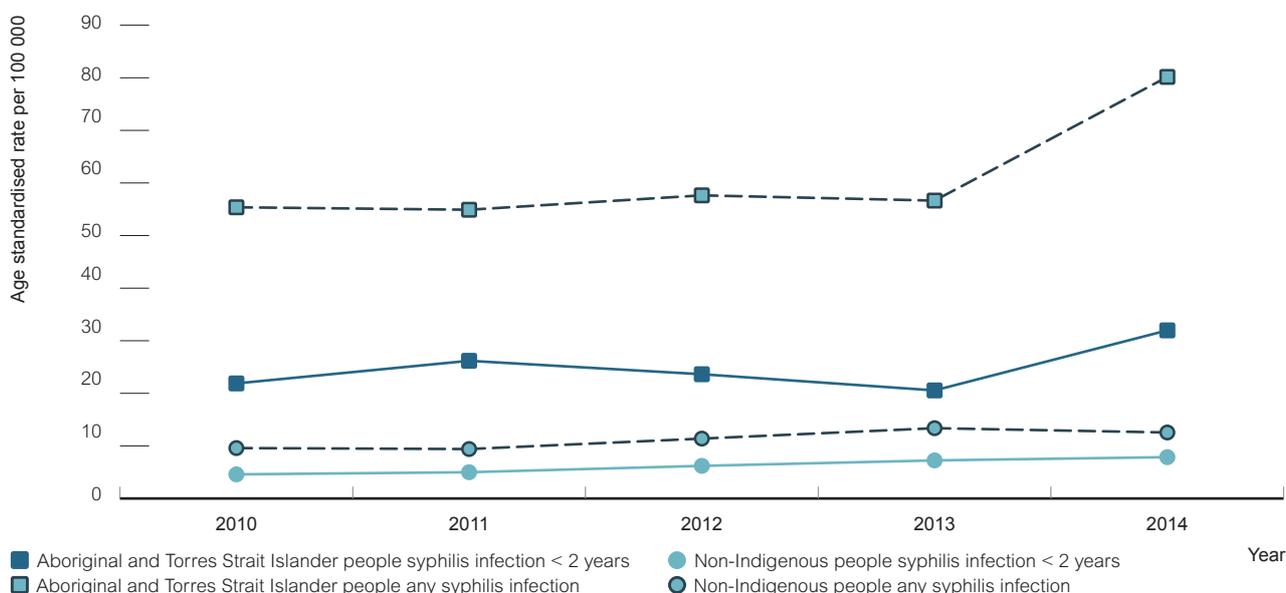
In 2014, there were 1 999 infectious syphilis notifications nationally, with 235 (12%) cases among the Aboriginal and Torres Strait Islander population, 1 588 cases (79%) among the non-Indigenous population and a further 176 cases (9%) for which Indigenous status was not reported.

In the Aboriginal and Torres Strait Islander population, the number of infectious syphilis notifications decreased from 195 cases in 2011 to 154 in 2013, and then increased to 235 in 2014.

In 2014, the age-standardised infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population was over 3 times that of the non-Indigenous population (32 vs. 8 per 100 000 population) (Figure 65).

For the first time this year, all syphilis notifications are presented also (infectious and other) as many 15 – 19 year olds would not have a past syphilis testing history to be included in the infectious syphilis case definition. The overall syphilis notification rate in the Aboriginal and Torres Strait Islander population was 6 times that of the non-Indigenous population (80 vs. 13 per 100 000 population) (Figure 65). The syphilis case definition is currently being reviewed to allow for inclusion of cases detected in outbreaks, which may not meet the infectious syphilis case definition.

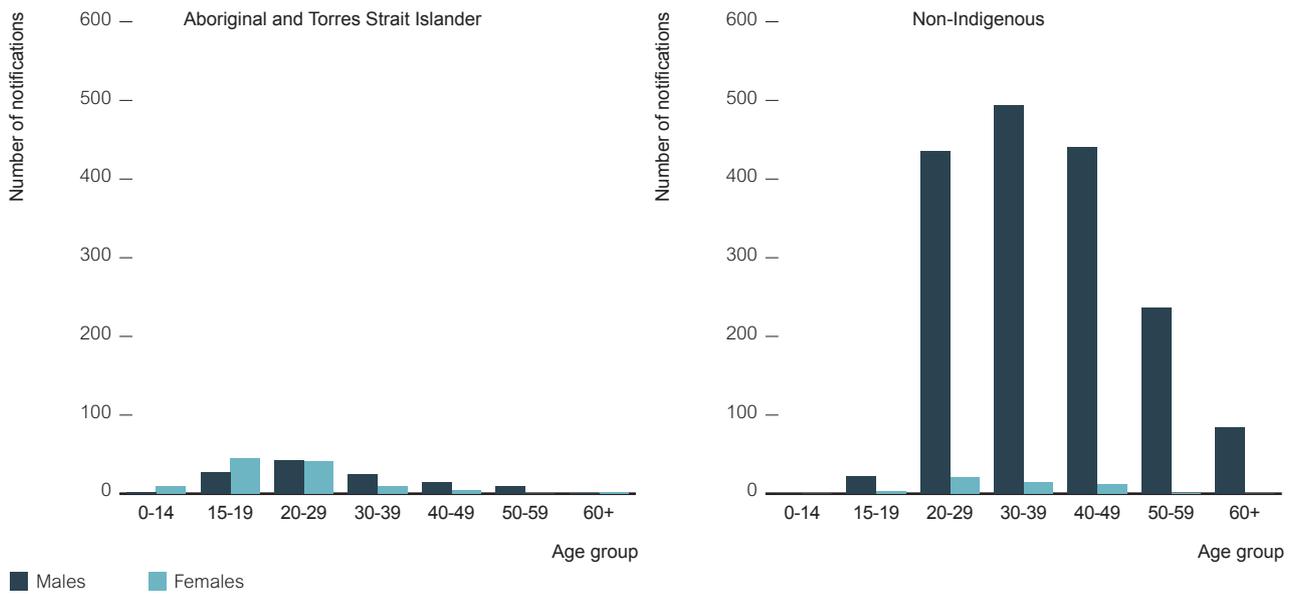
Figure 65 Syphilis and infectious syphilis notification rates per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (ACT, NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In 2014, 52% of notifications of infectious syphilis in the Aboriginal and Torres Strait Islander population were among males, compared with 97% in the non-Indigenous population (Figure 66). The male to female ratio among the Aboriginal and Torres Strait Islander cases indicates transmission of infectious syphilis predominantly through heterosexual sex and through sex between males in the non-Indigenous population.

Figure 66 Number of infectious syphilis notifications in 2014, by Aboriginal and Torres Strait Islander status, sex and age group

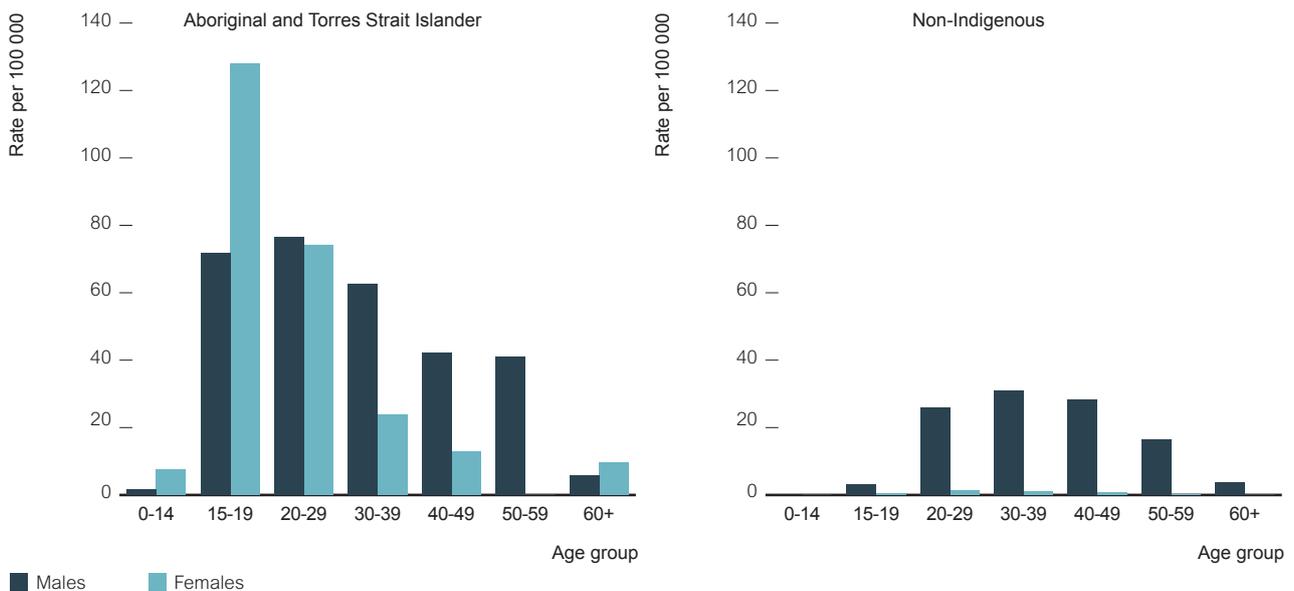


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (ACT,NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In 2014, the infectious syphilis notification rate was highest in the 15 – 19 year age group for the Aboriginal and Torres Strait Islander population (72 per 100 000 in males and 128 per 100 000 in females), and the 30 – 39 year age group for the non-Indigenous population (31 per 100 000 in males) (Figure 67).



Figure 67 Infectious syphilis notification rate per 100 000 in 2014, by Aboriginal and Torres Strait Islander status and age group

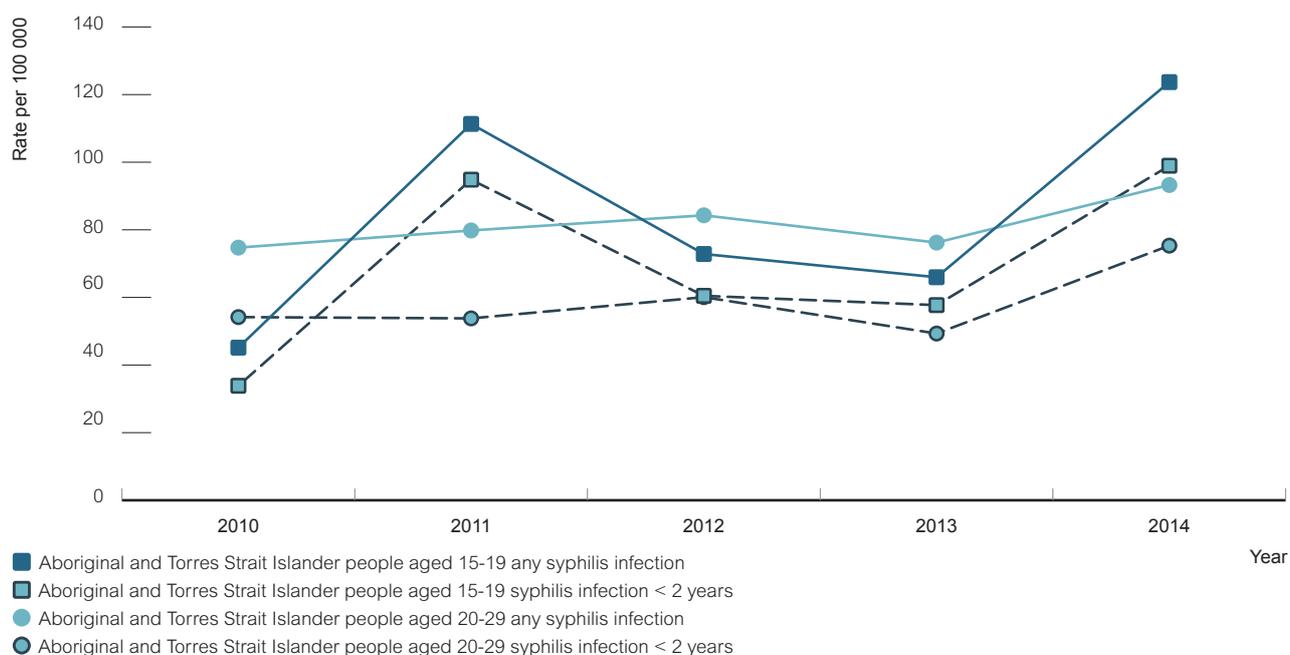


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (ACT,NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

The infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population declined from 2011 to 2013 in the 15 – 19 year old age groups and increased by 71% from 58 per 100 000 to 99 per 100 000 between 2013 and 2014.

In the 20 – 24 year olds age group, the infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population was steady between 2010 and 2013 but increased by 53% from 49 per 100 000 in 2013 to 75 per 100 000 in 2014 (Figure 68). When expanded to all syphilis notifications (infectious and other) the notifications increased but showed the same trend as infectious syphilis cases.

Figure 68 Syphilis notification rates per 100 000, 2010 – 2014, select age group and duration of infection



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 32380do001_2011; Includes jurisdictions (ACT, NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

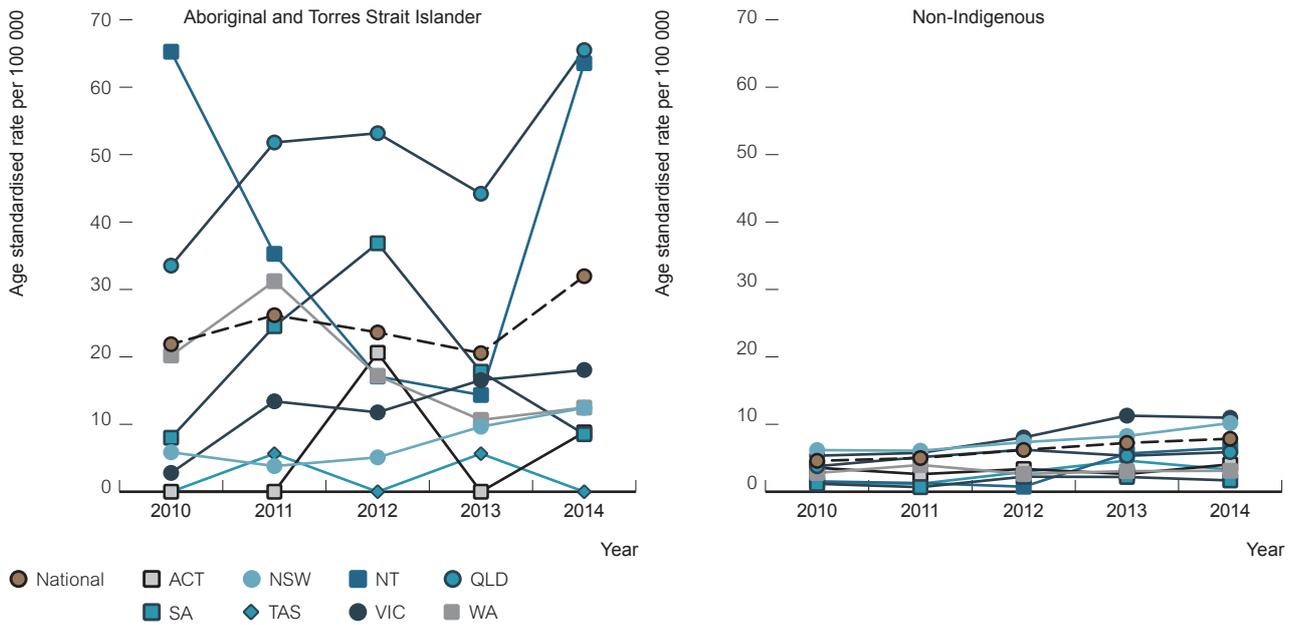
In 2014, the majority of the 235 infectious syphilis notifications in the Aboriginal and Torres Strait Islander population occurred in Queensland (56%), Northern Territory (25%), and New South Wales (9%). In contrast the majority of the 1 588 infectious syphilis notifications in the non-Indigenous population occurred in New South Wales (41%), Victoria (35%), Queensland (15%) and Western Australia (5%).

In the Northern Territory the notification rate of infectious syphilis in the Aboriginal and Torres Strait Islander population decreased by 77% from 2010 to 2013 (65 per 100 000 in 2010 to 14 per 100 000 in 2013), but increased by 107% between 2013 and 2014, to 64 per 100 000.

In Queensland the notification rate of infectious syphilis in the Aboriginal and Torres Strait Islander population increased by 53% between 2010 and 2011 (34 to 52 per 100 000) declined in 2013 then increased by 50% between 2013 and 2014 from 44 to 66 per 100 000 (Figure 69).

In Western Australia the notification rate of infectious syphilis in the Aboriginal and Torres Strait Islander population decreased between 2011 and 2013 and remained steady in 2014 (31 in 2011 to 11 per 100 000 in 2013 and 12 per 100 000 in 2014) (Figure 69).

Figure 69 Infectious syphilis notification rate per 100 000, 2010 – 2014, by Aboriginal and Torres Strait Islander status and State/Territory

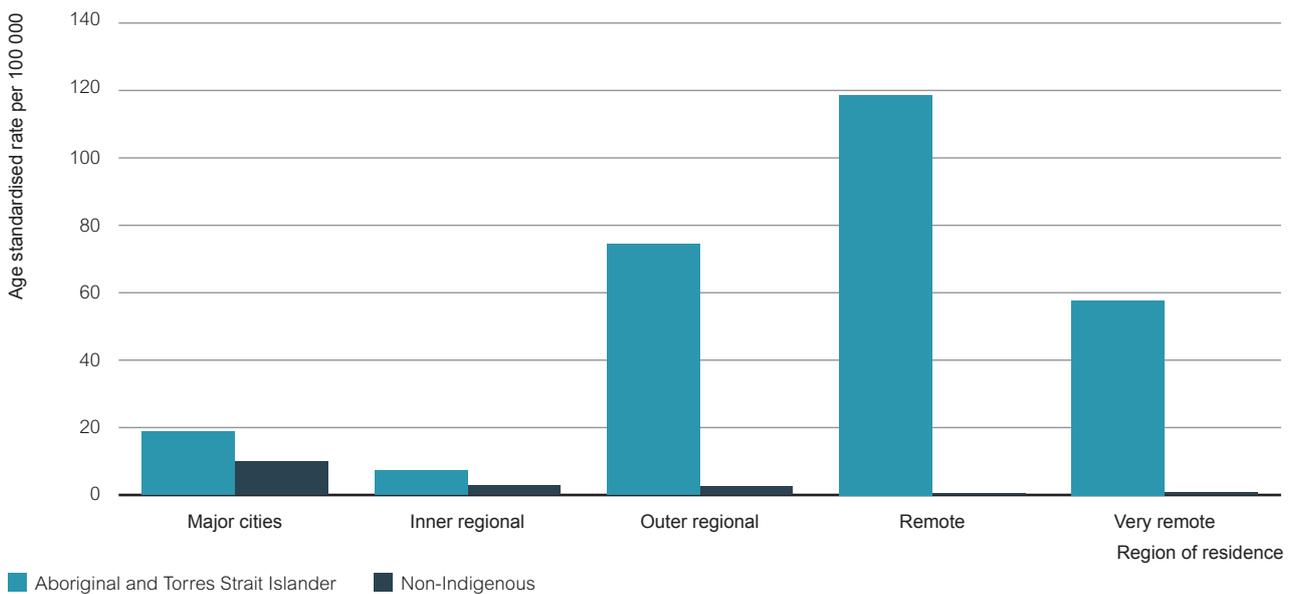


Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues 3101051 – 3101058; 3100DO003_201212; 32380do001_2011; Includes jurisdictions (ACT,NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

In 2014, the infectious syphilis notification rate in the Aboriginal and Torres Strait Islander population in major cities was 2 times higher than in the non-Indigenous population in the same area (19 versus 10 per 100 000), 3 times higher in inner regional areas, increasing to 30, 304 and 73 times the rate in outer regional, remote and very remote areas of Australia, respectively (Figure 70).

Between 2013 and 2014 there were increases in infectious syphilis notification rates in the Aboriginal and Torres Strait Islander population residing in remote areas and outer regional areas (Figure 71).

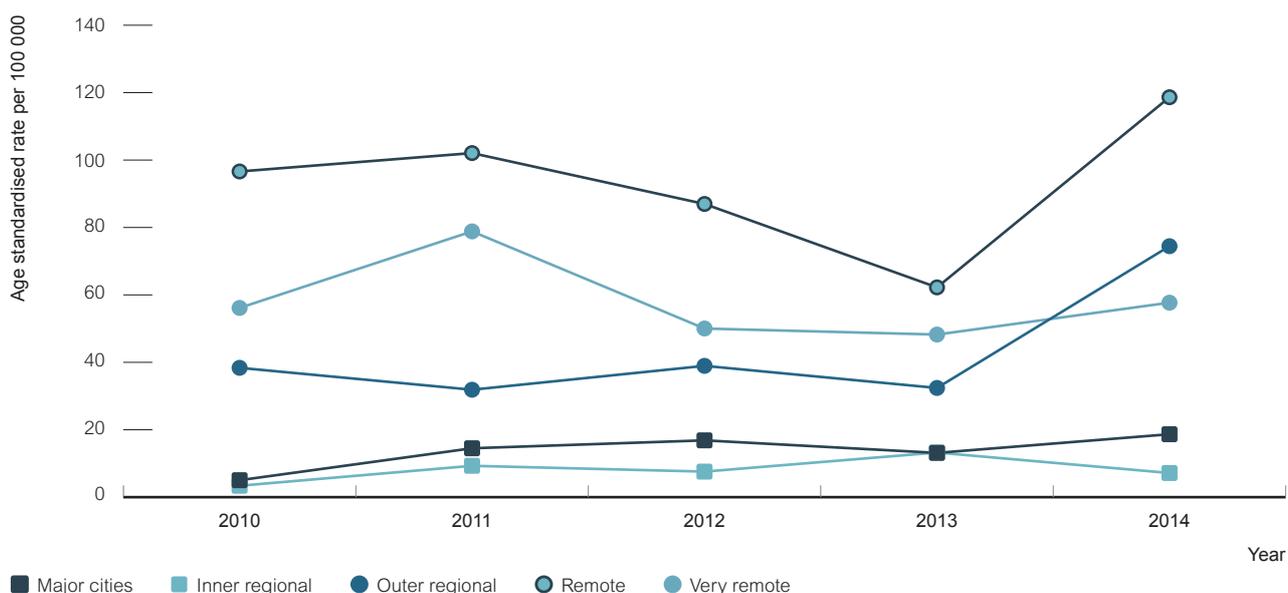
Figure 70 Infectious syphilis notification rate per 100 000 in 2014, by Aboriginal and Torres Strait Islander status and area of residence



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT,NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year



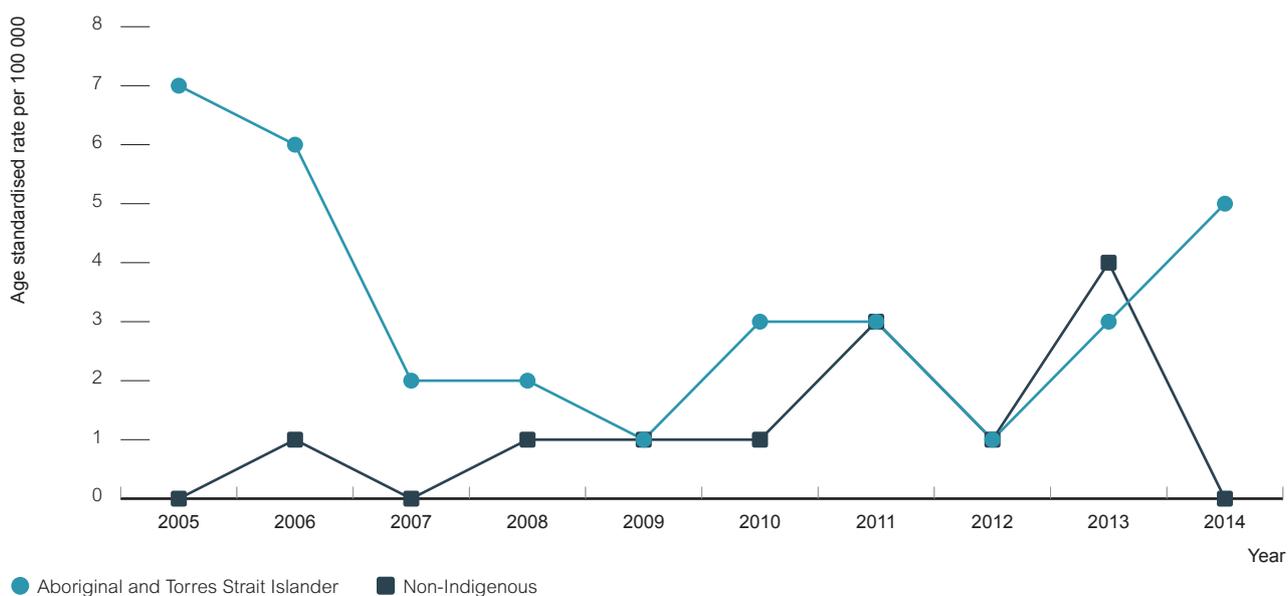
Figure 71 Infectious syphilis notification rate per 100 000, 2010 – 2014, by area of residence



Source: Australian National Notifiable Disease Surveillance System; ABS Catalogues: 3101051 – 3101058; 3100DO003_201212; 1270055006_CG_POSTCODE_2012_RA_2011; ABS SuperTable 2011 Census; 32380do001_2011; Includes jurisdictions (ACT, NSW, NT, QLD, SA, Tas., Vic., WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses for each year

Aboriginal and Torres Strait Islander status was reported in greater than 50% of congenital syphilis diagnoses in the Australian Capital Territory, the Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia. Data from these states indicate that the number of notifications of congenital syphilis reported in Aboriginal and Torres Strait Islander peoples declined from 7 in 2005 to 1 in 2009, and then increased to 5 in 2014 (Figure 72).

Figure 72 Number of cases of congenital syphilis notifications, 2005 – 2014, by Aboriginal and Torres Strait Islander status



Source: Australian National Notifiable Disease Surveillance System. In states with >50% completeness of Aboriginal and Torres Strait Islander status (ACT, NT, QLD, SA, Tas, Vic, WA)

Bacterial STIs reported in persons aged less than 16 years

The occurrence of STIs among the Aboriginal and Torres Strait Islander population aged less than 16 years is a sensitive issue and likely linked to early sexual debut in areas of high endemicity of STIs. Incorrect assumptions may link these data to child sexual assault but caution should be taken in their interpretation. 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 summarised 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.

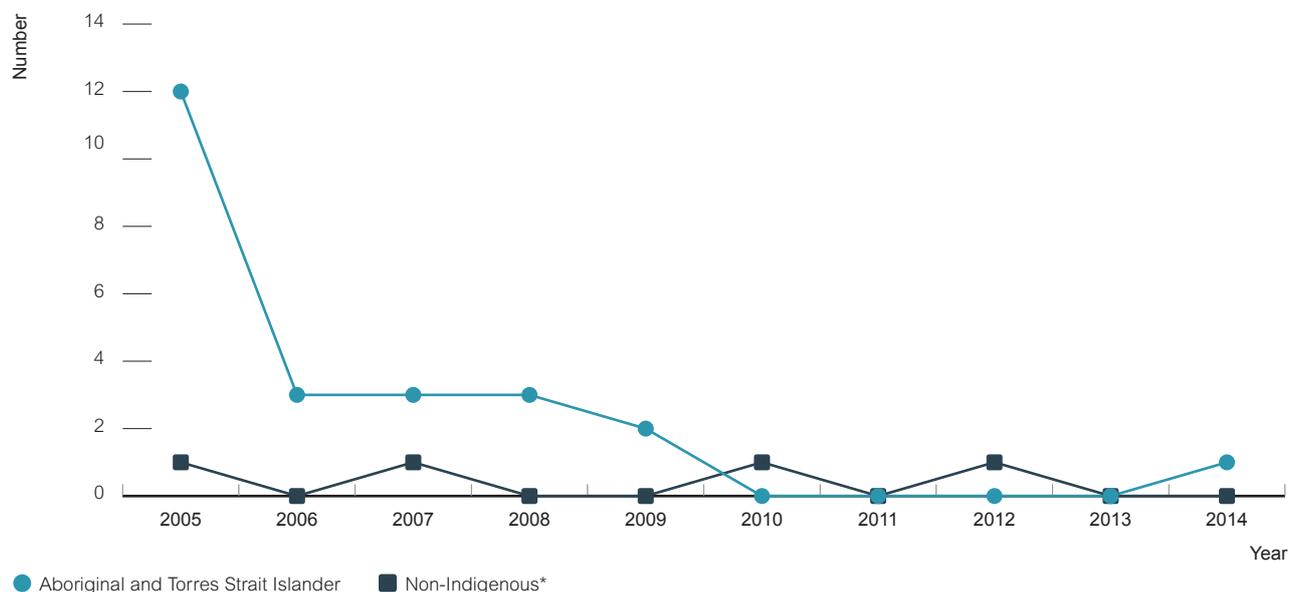
From 2010 – 2014, a total of 3 428 and 6 670 cases of chlamydia were reported among Aboriginal and Torres Strait Islander and the non-Indigenous populations aged less than 16 years respectively. In the same period 1983 and 362 cases of gonorrhoea and 68 and 2 cases of infectious syphilis were reported in the Aboriginal and Torres Strait Islander and non-Indigenous populations aged less than 16 years respectively. Among Aboriginal and Torres Strait Islander population, the majority of these notifications (95% for chlamydia, 94% for gonorrhoea and 93% for infectious syphilis) were among people aged 13 to 15 years. A similar pattern of diagnosis occurred among the non-Indigenous young population where 97% of chlamydia, 92% of gonorrhoea and 100% of infectious syphilis notifications in those less than 16 years were among people aged 13 to 15 years. The majority of diagnoses of STIs in the young Aboriginal and Torres Strait Islander population occurred in areas of known high endemicity of STIs, and where screening for STIs is routinely carried out. Caution should be taken in describing these data as related to child sexual assault; as it is likely that a significant proportion of these notifications are the result of early sexual debut and/or sex with peer-aged partners.

Donovanosis

Since 2007 there have been fewer than 3 notifications of donovanosis per year nationally, with zero in 2011, 1 in 2012, zero in 2013 and 1 in 2014. The National Donovanosis Eradication (Elimination) Project was implemented from 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 the annual number of notifications of donovanosis from 13 in 2005 to 1 in 2014 may be attributed to improved case ascertainment and treatment (Figure 73). There were no notifications of donovanosis in New South Wales, South Australia, Tasmania, Victoria and the Northern Territory in the past 5 years, and no notifications in Queensland in the past 4 years. In Western Australia there were no notifications between 2006 – 2011, with 1 in 2012, none in 2013 and 1 in 2014.

Figure 73 Number of donovanosis notifications, 2005 – 2014, by Aboriginal and Torres Strait Islander status



Source: Australian National Notifiable Disease Surveillance System * Includes not reported





Methodological Notes

HIV infection

National surveillance for newly diagnosed HIV infection

Newly diagnosed HIV infection is a notifiable condition in each State/Territory health jurisdiction in Australia. Cases of newly diagnosed HIV infection were notified through State/Territory health authorities to the national HIV surveillance centre on the first occasion of diagnosis in Australia. Information sought at notification of HIV infection included State/Territory of diagnosis, name code (based on the first two letters of the family name and the first two letters of the given name), sex, date of birth, Aboriginal and Torres Strait Islander status, date of HIV diagnosis, CD4+ cell count at diagnosis, source of exposure to HIV and evidence of newly acquired HIV infection.

Information on country of birth has been reported by all health jurisdictions for cases of HIV infection newly diagnosed in Australia from 1 January 2002. Information on language spoken at home has been reported by health jurisdictions in New South Wales, Victoria and Queensland for cases of HIV infection newly diagnosed from 1 January 2004 and by all jurisdictions from 2008. Reporting of a previous HIV diagnosis overseas was introduced for cases of HIV infection newly diagnosed in Australia from 1 January 2007 (Table 1.1.3). Advanced HIV diagnosis was defined as newly diagnosed HIV infection with a CD4+ cell count of less than 200 cells/ μ l, and late HIV diagnosis was defined as newly diagnosed HIV infection with a CD4+ cell count of less than 350 cells/ 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) ⁵ and McDonald et al (1994) ⁶. The National Serology Reference Laboratory, Australia (Dax and Vandenberg 1993) ⁷, carried out monitoring of HIV antibody testing.

Newly acquired HIV infection

Information on the date of the last negative or indeterminate test or date of onset of primary HIV infection has been routinely sought through each State/Territory health jurisdiction for cases of HIV infection newly diagnosed in Australia from 1 January 1991. Newly acquired HIV infection was defined as newly diagnosed infection with evidence of a negative or indeterminate HIV antibody test or a diagnosis of primary HIV infection within 12 months of HIV diagnosis. The surveillance system for newly acquired HIV infection is described in McDonald et al (1994).

New diagnoses

Notification rates were calculated using population denominators obtained from the Australian Bureau of Statistics (ABS) by state, year, sex and age (ABS series 3101051 – 3101058) and were standardised using ABS Standard Population Catalogue 3100DO003_201212. Population denominators by country/region of birth were based on the standard Australian Classification of Countries (ABS series 1269.0) with proportion of population by region of birth and year ascertained from ABS SuperTable data. Population denominators by year, sex, age and state for Aboriginal and Torres Strait islanders were obtained from ABS catalogue 32380do001_2011. ABS regional population denominators by age, sex, Indigenous status and state were obtained from ABS 2011 census data using remoteness according to postcode as assigned by ABS catalogue 1270055006_CG_POSTCODE_2012_RA_2011. Proportion of population by remoteness was held constant over the range of data presented and used to evaluate remoteness populations by year using ABS population data matched by state, age, sex and Indigenous status.

Rates of HIV in Indigenous populations were compared to Australian born non-Indigenous populations unless otherwise stated.

Estimating HIV prevalence and level of diagnosed infection

Estimated HIV prevalence among people seen at needle and syringe programs was obtained from the Australian Needle and Syringe Program Survey (ANSPS) ⁸. ANSPS methodology has been described in detail elsewhere ⁹. Briefly, the ANSPS is conducted annually over a 1 – 2 week period in October at more than 50 Needle and Syringe programs (NSP) to provide serial point prevalence estimates of HIV and hepatitis C and to monitor injecting behaviour among people who inject drugs (PWID).

Hepatitis C infection

New diagnoses of hepatitis B, newly acquired hepatitis B, hepatitis C infection and newly acquired hepatitis C were notifiable conditions in all State/Territory 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 (NNDSS). Population rates of diagnosis of viral hepatitis were calculated for each State/Territory 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.

New hepatitis C diagnoses

Notification procedures for new diagnoses of HCV have been described above. Rates of notification for newly acquired HCV and all new HCV notifications were calculated using analogous procedures to those described above for HIV notifications (see HIV New diagnoses methodology).

Hepatitis C prevalence

Hepatitis C prevalence among prison entrants was estimated using the National Prison Entrants' Bloodborne Virus Survey (NPEBVS). NPEBVS methodology has been described in detail elsewhere ¹⁰. Briefly, the study is a triennial consecutive cross-sectional sample of prison entrants over a two week period.

Hepatitis B infection

Hepatitis B new diagnoses

Notification procedures for new diagnoses of hepatitis B have been described above. Rates of notification for newly acquired hepatitis B and all new hepatitis B notifications were calculated using analogous procedures to those described above for HIV notifications (see HIV New diagnoses methodology).

Hepatitis B prevalence

The estimated prevalence of chronic hepatitis B according to country of birth was derived from combining multiple published sources into an average point estimate. The estimates used comprised two Australian antenatal seroprevalence studies^{11, 12}; a study of hepatitis B prevalence in migrants to the United States¹³; and the most recent global seroprevalence study conducted as part of the Global Burden of Disease Project¹⁴. The Australian prevalence figure was obtained from local modelled estimates¹⁵.

HBV prevalence among prison entrants was estimated using the NPEBVS described above.

HBV prevalence among blood donors was estimated using Australian Red Cross Blood Service data described above.

Sexually transmissible infections other than HIV

Diagnoses of specific sexually transmissible infections were notified by State/Territory health authorities to the National Notifiable Disease Surveillance System (NNDSS), maintained by the Australian Government Department of Health. 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 5 Source of notification of specific sexually transmissible infections to the National Notifiable Diseases Surveillance System by State/Territory

Diagnosis	Australian Capital Territory	New South Wales	Northern Territory	Queensland	South Australia	Tasmania	Victoria	Western Australia
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

New diagnoses of STIs other than HIV

Notification procedures for new diagnoses of STIs other than HIV have been described above. Respective rates of notification for chlamydia, gonorrhoea and infectious syphilis were calculated using analogous procedures to those described above for HIV notifications (see HIV new diagnoses methodology).

Number of notifications of Donovanosis was obtained from the NNDSS (described above).

Prevention and risk behaviours

Proportions of people reporting inconsistent condom use, recent injecting drug use, receptive needle sharing among people who inject drugs, recent HIV antibody testing, recent hepatitis C antibody testing, and use of hepatitis C antiviral therapy was estimated calculated from the Australian Needle and Syringe Program Survey (ANSPS). The ANSPS is conducted annually at more than 50 needle and syringe program (NSP) services over a one to two week period in October each year. The project is conducted in all states and territories and recruits between 2000 – 2500 NSP attendees each year. Participants complete a brief self-administered questionnaire and provide a capillary blood sample which is subsequently tested for HIV and hepatitis C antibodies.

The proportion of 16 – 29 year olds reporting condom use was provided by the Goanna survey (Sexual Health and relationships in young Aboriginal and Torres Strait Islander people: Results from the first national study assessing knowledge, risk practices and health service use in relation to sexually transmitted infections and bloodborne viruses).

The survey involved collection of data comprising four areas; (i) demographics; (ii) questions assessing knowledge of STIs and BBVs; (iii) questions relating to risk behaviours and (iv) questions related to use of and access to health services. Just under 3 000 Aboriginal and Torres Strait Islander people aged 16 – 29 were surveyed in every Australian jurisdiction. The project was initiated in 2010, and data collection occurred during 2011 – 2013. The survey was funded by an Australian Research Council Linkage Grant with contributions from State and Territory Health Departments. The survey was coordinated by peak Aboriginal health organisations in each jurisdiction.

Immunisation

HBV vaccine coverage was estimated using data from the National Centre for Immunisation Research of Vaccine Preventable Diseases (NCIRS) surveillance of immunisation coverage and the Australian Childhood Immunisation Register.



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