

**Blood borne viral and  
sexually transmissible  
infections in Aboriginal and  
Torres Strait Islander peoples:  
Annual surveillance report**

**2022**

## Cover Artwork

The cover artwork was created by Jasmine Sarin. Jasmine is a proud Kamilaroi and Jerrinja woman from NSW. Born and raised in Dharawal Country (Wollongong) as well as Jerrinja and Yuin Country (Nowra) and has family connections in Kamilaroi Country (Coonabarabran). Jasmine is also a Rescue Qualified Firefighter with Fire and Rescue NSW, a lover of good coffee, rugby league and a self-taught Aboriginal artist and graphic designer.

The narrative for this artwork can be found on the inside back cover of this report.

“My artwork predominantly features bright and bold colours. The narratives behind my artworks are often linked to the way we connect, the way we come together, and how we grow as community. These concepts are illustrated in my work as concentric circles, connection lines, floral emblems, and textured patterns symbolic of landscape. All of which reflect the cultural connection of country. We stand in footsteps millennia old, may we acknowledge all traditional owners of this great land... past, present and emerging.”

Jasmine Sarin

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# Blood borne viral and sexually transmissible infections in Aboriginal and Torres Strait Islander peoples: Annual surveillance report 2022

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# Preface

This report provides information on the occurrence of blood borne viruses (BBVs) and sexually transmissible infections (STIs) among Aboriginal and Torres Strait Islander peoples in Australia. The report is published by the Kirby Institute, UNSW Sydney 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 impacts 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* <sup>(1)</sup> and is overseen by the National Blood Borne Virus and Sexually Transmissible infections Surveillance Sub-Committee (NBBVSTI SSC) and the Annual Surveillance Report Advisory Committee with input provided by the National Aboriginal Community Controlled Health Organisation (NACCHO).

The report is produced for use by a wide range of health service providers and consumers, and particularly Aboriginal and Torres Strait Islander health services and communities. Tables, graphs, and infographics are also available online at the [Kirby Institute website](#).

Unless specifically stated otherwise, all data provided in this report are to the end of 2021. Data in the report are provisional and subject to future revision.

The Kirby Institute acknowledges Traditional Custodians of Country throughout Australia and recognises the continuing connection to lands, waters and communities. We pay our respect to Aboriginal and Torres Strait Islander Elders past and present. We acknowledge the unique position of Aboriginal and Torres Strait Islander peoples' culture, history and as the original inhabitants of the land. We extend our gratitude to the Kirby Institute Aboriginal and Torres Strait Islander Surveillance Reference Group, for providing expert insight, advice, and Aboriginal and/or Torres Strait Islander perspective, without whose input this report would not be possible. We also acknowledge Jasmine Sarin, a proud Kamilaroi and Jerrinja women who created the beautiful artwork for this report.

## Abbreviations

<b>ABS</b>	Australian Bureau of Statistics
<b>ACCESS</b>	Australian Collaboration for Coordinated Enhanced Sentinel Surveillance
<b>ANSPS</b>	Australian Needle Syringe Program Survey
<b>BBV</b>	blood borne virus
<b>HIV</b>	human immunodeficiency virus
<b>HPV</b>	human papillomavirus
<b>STI</b>	sexually transmissible infection

# Summary

*Trends presented below were likely influenced the COVID-19 pandemic and should be interpreted with caution. The years for comparison in this report are from 2017 to 2021 and 2012 to 2021 unless focus is given to the impact of the COVID-19 epidemic, where the years for comparison are 2019 to 2021.*

## HIV

- In 2021, there were 17 HIV notifications among Aboriginal and Torres Strait Islander peoples, accounting for 3% of all HIV notifications (552 notifications overall). This represents a 51% decline from 35 notifications in 2012, and a 45% decline from 31 notifications in 2017.
- In 2021, the HIV notification rate was 2.3 per 100 000 among Aboriginal and Torres Strait Islander peoples compared with 2.2 per 100 000 among non-Indigenous people.
- In 2021, among Aboriginal and Torres Strait Islander peoples, the HIV notification rate was 3.1 per 100 000 for those aged 35 or older and was 1.4 per 100 000 for those aged under 35 years. Among non-Indigenous people, the HIV notification rate was 2.1 per 100 000 for those aged 35 and older and was 2.2 per 100 000 for those aged under 35 years.
- In the five-year period 2017–2021, the proportion of HIV notifications attributed to injection drug use was 12% among Aboriginal and Torres Strait Islander peoples compared with 3% among non-Indigenous people. Also, the proportion of HIV notifications attributed to male-to-male sex was 50% among Aboriginal and Torres Strait Islander peoples, compared with 61% among non-Indigenous people. In the same period, the proportion of HIV notifications attributed to heterosexual sex was 25% among Aboriginal and Torres Strait Islander peoples, compared with 20% among non-Indigenous people.
- Based on mathematical modelling, there were an estimated 580 Aboriginal and/or Torres Strait Islander people living with HIV in Australia in 2021 which corresponds to an estimated HIV prevalence of 0.10% (range 0.09 % to 0.11%).
- Based on the test for immune function (CD4+ cell count), 43% of HIV notifications among Aboriginal and Torres Strait Islander peoples in 2021 were classified as late diagnoses (CD4+ cell count of less than 350 cells/ $\mu$ L) compared with 48% among non-Indigenous people. These notifications are likely to have been in people who had acquired HIV at least four years prior to diagnosis.
- According to the Australian Needle Syringe Program Survey (ANSPS), a higher proportion of Aboriginal and Torres Strait Islander women than non-Indigenous women reported having tested for HIV in the last 12 months (39% vs 34% in 2021, respectively). Similarly, a higher proportion of Aboriginal and Torres Strait Islander men participants than non-Indigenous men participants reported a HIV test in the past 12 months each year since 2011 (51% vs 35% in 2021).
- In 2021, among participants of ANSPS, 74% of Aboriginal and Torres Strait Islander women reported inconsistent condom use with casual partners compared to 69% of Aboriginal and Torres Strait Islander men.

## Hepatitis C

- In 2021, there were 1232 hepatitis C notifications among Aboriginal and Torres Strait Islander peoples, accounting for 16% of all hepatitis C notifications (7487 notifications overall). There were a further 2640 (35%) notifications among people for whom Aboriginal and Torres Strait Islander status was not reported.
- Hepatitis C notification rates among Aboriginal and Torres Strait Islander peoples are based on data from six jurisdictions (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia). Jurisdictions were included where Aboriginal and Torres Strait Islander status was  $\geq 50\%$  complete for all hepatitis C notifications for each of the five years (2017–2021).
- In 2021, the age-standardised hepatitis C notification rate for Aboriginal and Torres Strait Islander peoples was more than seven times as high as compared to non-Indigenous people (194.3 per 100 000 vs 26.2 per 100 000).
- Of Aboriginal and Torres Strait Islander men and women who were hepatitis C antibody negative participating in the ANSPS, the proportion who reported a hepatitis C antibody test in the past 12 months declined over the period 2012 to 2021 from 61% to 45% among men, and from 65% to 49% among women.
- In 2021, 29% of Aboriginal and Torres Strait Islander respondents to the ANSPS reported receptive syringe sharing in the previous month, a key risk factor for hepatitis C transmission, compared with 13% among non-Indigenous survey respondents.
- Among Aboriginal and Torres Strait Islander respondents to the ANSPS in 2021, more than half (56%) of those who self-reported having ever lived with chronic hepatitis C had received treatment in their lifetime, a proportion that has more than doubled since the end of 2015 (10%) when PBS-subsidised interferon-free direct-acting antiviral regimens becoming available. In 2021, Aboriginal and Torres Strait Islander respondents had lower uptake of treatment in the last 12 months (24%) compared to non-Indigenous participants (37%).

## Hepatitis B

- There were 4732 notifications of hepatitis B infection in Australia in 2021, of which 156 (3%) were among Aboriginal and Torres Strait Islander peoples and 2526 (53%) were among non-Indigenous people. For 2050 notifications (43%), Aboriginal and Torres Strait Islander status was not reported.
- Hepatitis B notification rates among Aboriginal and Torres Strait Islander peoples are based on data from six jurisdictions (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia). Jurisdictions were included where Aboriginal and Torres Strait Islander status was  $\geq 50\%$  complete for all hepatitis C notifications for each of the five years (2017–2021).
- The hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples fluctuated between 2017 and 2021 (from 27.3 to 36.4 per 100 000) and was 31.0 per 100 000 in 2021. In 2021, the age-standardised notification rate of hepatitis B for Aboriginal and Torres Strait Islander peoples was more than twice as high as compared to non-Indigenous people (31.0 per 100 000 vs. 14.7 per 100 000).
- From 2017 to 2021, hepatitis B vaccination coverage rates for Aboriginal and Torres Strait Islander children remained over 90%. In 2021, the coverage rate was 92% for children aged 12 months and 97% for children aged 24 months.

# Sexually transmissible infections

## Chlamydia

- Chlamydia is the most frequently diagnosed sexually transmissible infection in Australia. In 2021, there were a total of 86 916 chlamydia notifications in Australia, of which 7241 (8%) were among Aboriginal and Torres Strait Islander peoples, 37 992 (44%) were among non-Indigenous people, and Aboriginal and Torres Strait Islander status was not reported for 41 683 (48%) notifications.
- Chlamydia notification rates among Aboriginal and Torres Strait Islander peoples are based on data from four jurisdictions (Australian Capital Territory, the Northern Territory, South Australia, and Western Australia). Jurisdictions were included where Aboriginal and Torres Strait Islander status was  $\geq 50\%$  complete for all chlamydia notifications for each of the five years (2017–2021).
- In 2021, the chlamydia notification rate for Aboriginal and Torres Strait Islander peoples (1161.8 per 100 000) was more than three times as high as among non-Indigenous people (365.7 per 100 000).
- Between 2017 and 2021, the chlamydia notification rate in Aboriginal and Torres Strait Islander peoples and non-Indigenous people fluctuated with declines between 2019 and 2021 likely related to the COVID-19 pandemic.

## Gonorrhoea

- There were 26 577 gonorrhoea notifications in Australia in 2021. Of these, 4653 (18%) were among Aboriginal and Torres Strait Islander peoples, 15 251 (57%) were in non-Indigenous people, and 6673 (25%) were in people for whom Aboriginal and Torres Strait Islander status was not reported.
- Gonorrhoea notification rates among Aboriginal and Torres Strait Islander peoples are based on data from all jurisdictions, as Aboriginal and Torres Strait Islander status was  $\geq 50\%$  complete for gonorrhoea notifications in all jurisdictions for each of the five years 2017–2021.
- In 2021, the gonorrhoea notification rate in Aboriginal and Torres Strait Islander peoples was more than five times that of non-Indigenous people (484.1 per 100 000 vs. 93.1 per 100 000 population), increasing to 24 times as high in remote areas.

## Infectious Syphilis

- There were 5570 infectious syphilis notifications in Australia in 2021, of which 959 (17%) notifications were among Aboriginal and Torres Strait Islander peoples, 4233 (76%) were among non-Indigenous people, and 278 (7%) for people whose Aboriginal and Torres Strait Islander status was not reported.
- Infectious syphilis notification rates among Aboriginal and Torres Strait Islander peoples are based on data from all jurisdictions, as Aboriginal and Torres Strait Islander status was at least  $\geq 80\%$  complete in all jurisdictions for infectious syphilis notifications for each of the ten years 2012–2021.
- The infectious syphilis notification rate among Aboriginal and Torres Strait Islander peoples increased three-fold between 2012 and 2019 from 29.0 per 100 000 to 122.6 per 100 000. In 2021, the infectious syphilis notification rate was 107.2 per 100 000.
- Infectious syphilis notification rates among both Aboriginal and Torres Strait Islander males and females were three times and 24 times as high as their non-Indigenous gender equivalent, respectively.
- In 2021, the infectious syphilis notification rate in Aboriginal and Torres Strait Islander peoples was more than three times as high as among non-Indigenous people in major cities, increasing to more than six times as high in regional areas and 77 times as high in remote areas.
- There were 15 cases of congenital syphilis recorded in 2021, of which nine were among Aboriginal and Torres Strait Islander peoples and six were among non-Indigenous people.



## Donovanosis

- Australia is on track to eliminate donovanosis, which was once a frequently diagnosed sexually transmissible infection among remote Aboriginal populations. Since 2012 there have only been two cases notified, one in 2012 and one in 2014.

## Human papillomavirus

- In Australia, the national vaccination program for human papillomavirus (HPV) was introduced for girls aged 12 to 13 years in 2007 and was extended to include boys of the same age in 2013. Since 2007 there have been considerable reductions in the proportions diagnosed with genital warts Among Aboriginal and Torres Strait Islander males and females aged 21-years or younger attending 53 sexual health clinics included in the Genital Warts Surveillance Network for their first visit.

# 1 Interpretation

In 2021, testing, diagnosis, and treatment of STIs and BBVs continued to be influenced by the COVID-19 pandemic. The decline in sexually transmissible infections and blood borne virus notifications between 2019 and 2021 was likely to have been influenced by changes to sexual behaviour, healthcare access, testing practices, and travel, that have arisen as a consequence of the COVID-19 pandemic.

The HIV notification rate in Aboriginal and Torres Strait Islander peoples declined by 53% between 2012 and 2021. In 2021, the HIV notification rate among Aboriginal and Torres Strait Islander peoples (2.3 per 100 000) was close to that of non-Indigenous people (2.2 per 100 000). The HIV notification rate among Aboriginal and Torres Strait Islander peoples is based on small numbers of HIV notifications (17 notifications) so should be interpreted with caution.

No declines in the hepatitis C notification rate were seen among Aboriginal and Torres Strait Islander peoples in 2021, compared with declines seen among non-Indigenous people, including among people aged 15 to 24 years, the age group used a proxy for the incidence of hepatitis C infection. Further, hepatitis C notification rates in this age group remain several-fold higher among Aboriginal and Torres Strait Islander peoples compared to non-Indigenous people. According to the Australian Needle Syringe Program Survey, Aboriginal and Torres Strait Islander peoples reported a lower proportion of hepatitis C treatment uptake than non-Indigenous people. This suggests that there is inequity in the availability of direct acting antiviral therapy as well as resources directed toward harm reduction and linkage to care. This inequity may be limiting the decline in the rate of hepatitis C infections among younger Aboriginal and Torres Strait Islander people.

The declining trend in hepatitis B notifications in Aboriginal and Torres Strait Islander peoples younger than 30 years suggests that immunisation programs for hepatitis B have had a clear benefit and have reduced the gap in hepatitis B notification rates between Aboriginal and Torres Strait Islander peoples and non-Indigenous people. However, hepatitis B notification rates in Aboriginal and Torres Strait Islander peoples in older age groups remained high compared to non-Indigenous people, highlighting the need for a continued focus on hepatitis B testing, immunisation, and engagement in care among Aboriginal and Torres Strait Islander peoples.

In 2021, STI notification rates remained higher among Aboriginal and Torres Strait Islander peoples than among non-Indigenous people: infectious syphilis and gonorrhoea were more than five times as high, and chlamydia was more than three times as high. The increases in infectious syphilis among Aboriginal and Torres Strait Islander peoples in major cities, regional areas, and remote areas, along with a considerable increase in the number of congenital syphilis cases, emphasise the need to enhance culturally appropriate health promotion, testing and treatment strategies in partnership with Aboriginal and Torres Strait Islander stakeholders. In particular, antenatal care needs to be more accessible with enhanced syphilis screening for pregnant women, regardless of the healthcare setting.

There has been some success in controlling a limited number of STIs in Aboriginal and Torres Strait Islander peoples. Donovanosis, once an STI diagnosed among remote Aboriginal populations, is now virtually eliminated. Significant declines in the number of genital warts diagnoses have been observed after previously being recorded as the most common STI managed at sexual health clinics among Aboriginal and Torres Strait Islander peoples. These declines reflect the success of the national vaccination program for HPV, introduced in 2007 for girls and in 2013 for boys. Also, declines in the number of hepatitis B notifications among younger Aboriginal and Torres Strait Islander people reflect the success of the National Immunisation Program which provides free HBV vaccinations for Australian infants.

Wider determinants of health, such as access to health care, education, unemployment, poverty and discrimination, can also influence risk factors for blood borne viruses and sexually transmissible infections<sup>(2)</sup>. These social determinants must be acknowledged in the development of strategies to address the concerning trends in blood borne viruses and sexually transmissible infection transmission rates and the associated burden of disease.

## 2 Overview

### Aboriginal and Torres Strait Islander status completeness

Incomplete information on Aboriginal and Torres Strait Islander identification has the potential to misrepresent the true extent of blood borne virus and sexually transmissible infections in Aboriginal and Torres Strait Islander peoples. The National Notifiable Diseases Surveillance System uses 'Indigenous status' to indicate Aboriginal and Torres Strait Islander identity. For the purposes of reporting, when discussing data sourced from the National Notifiable Diseases Surveillance System, 'Aboriginal and Torres Strait Islander status' will be used in place of 'Indigenous status'.

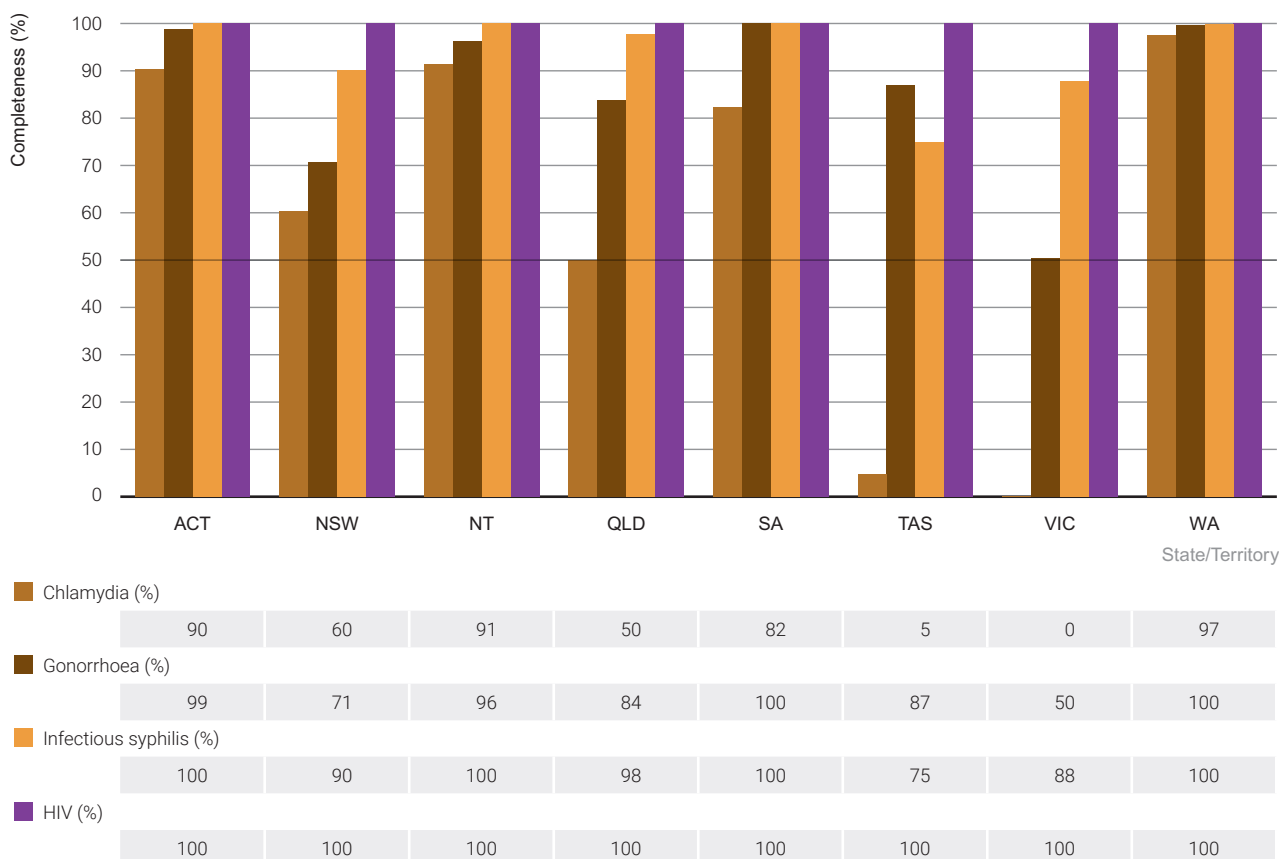
In 2021, all jurisdictions reported the Aboriginal and Torres Strait Islander status for at least 50% of HIV, gonorrhoea, infectious syphilis and newly acquired hepatitis B notifications (infections acquired within the last two years). However, Aboriginal and Torres Strait Islander status was reported for less than 50% of notifications in the following jurisdictions for the following conditions (Figure 1, Figure 2):

- Chlamydia: New South Wales, Tasmania, and Victoria
- Hepatitis B: New South Wales and Victoria
- Hepatitis C: New South Wales and Victoria.

Time trends of notification rates for specific infections by jurisdiction were included in this report if information on Aboriginal and Torres Strait Islander status was available for at least 50% of notifications of the infection in every one of the past five years. Jurisdictions which met the 50% threshold in 2021 (Figure 1 and Figure 2) but not in other years were not included in this report, unless otherwise mentioned. Caution should be taken while interpreting the data, as even at least 50% Aboriginal and Torres Strait Islander status reporting is low.

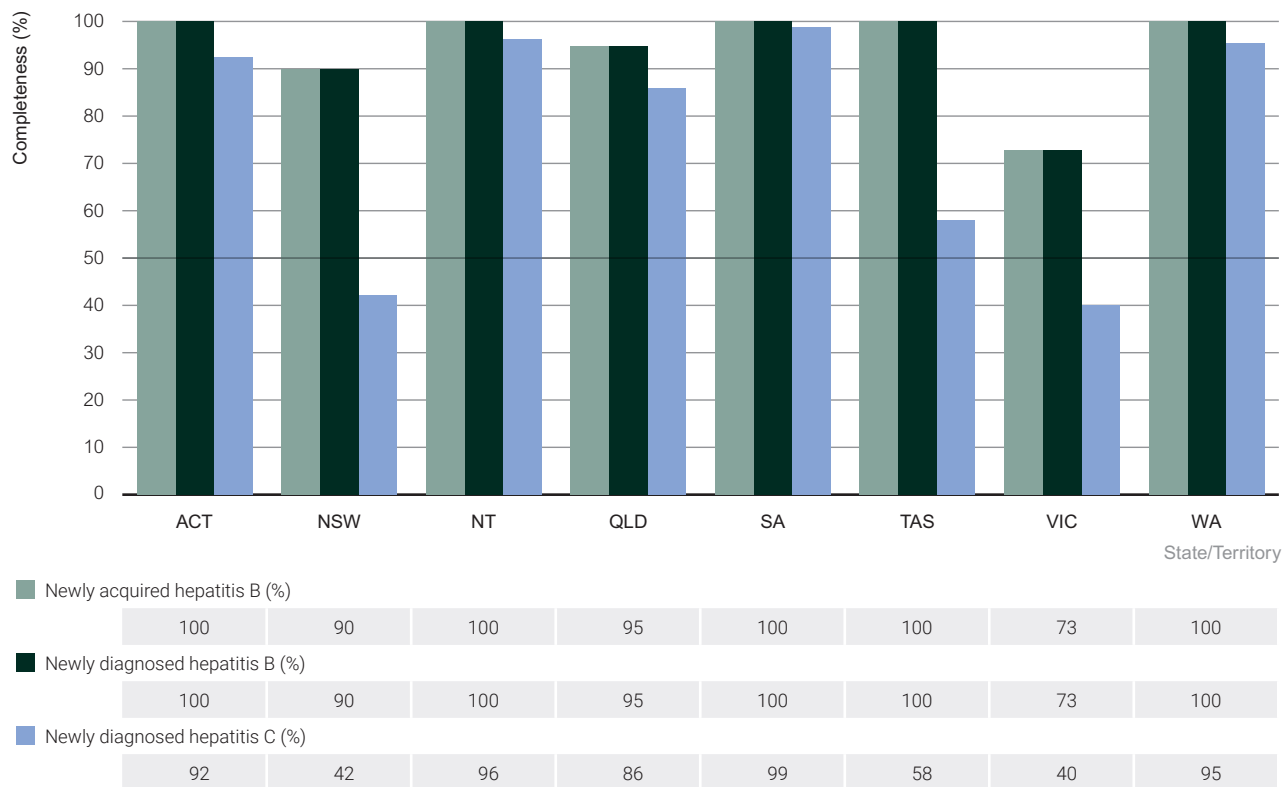
Multiple enhanced surveillance and health force education activities are being undertaken at the jurisdictional and national level to improve completeness of Aboriginal and Torres Strait Islander status. This includes consideration of the addition of Aboriginal and Torres Strait Islander status to pathology forms, continuing education of health care providers, and enhanced data review processes to improve the completion rate. Continued focus on this area is essential to improve completion of data relating to Aboriginal and Torres Strait Islander peoples as stated in national strategies <sup>(3)</sup>.

**Figure 1 Reporting of Aboriginal and Torres Strait Islander status at notification for sexually transmissible infections by state/territory, 2021**



Source: National Notifiable Diseases Surveillance System; see [Methodology](#) for details.

**Figure 2** Reporting of Aboriginal and Torres Strait Islander status at notification of viral hepatitis by state/territory, 2021

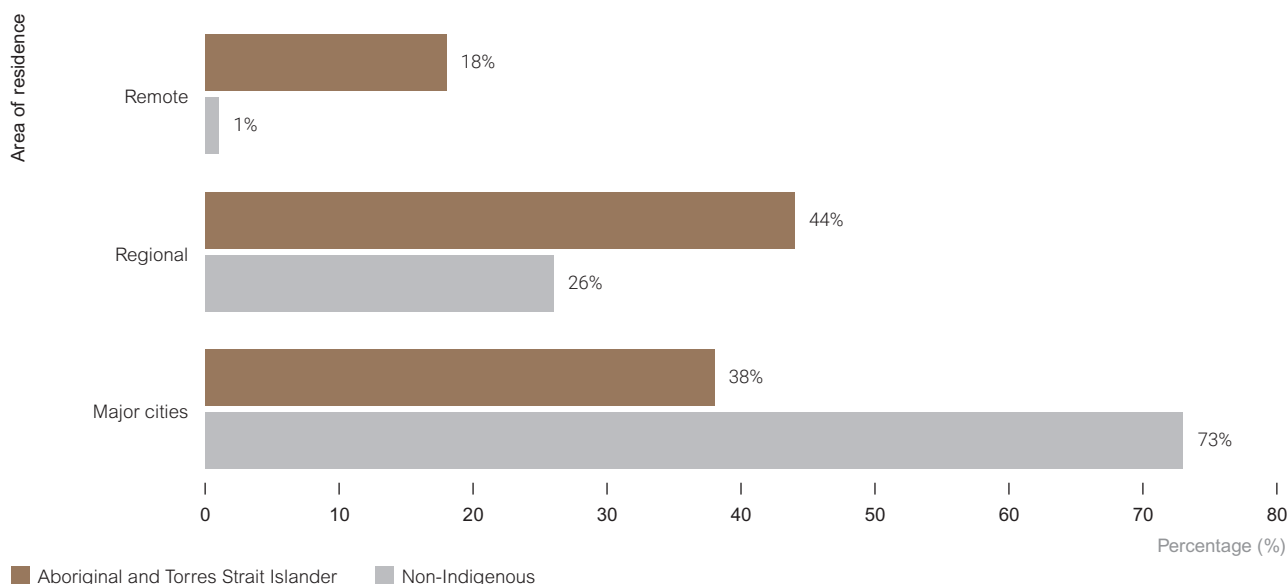


Source: National Notifiable Diseases Surveillance System; see [Methodology](#) for details.

## Area of residence

Based on ABS population projections, it is estimated that in 2021, 18% of Aboriginal and Torres Strait Islander peoples lived in remote areas, 44% in regional areas and 38% in major cities, compared with 1%, 26%, and 73% of non-Indigenous people, respectively (Figure 3). See [Methodology](#) for further information.

**Figure 3** Area of residence by Aboriginal and Torres Strait Islander status, 2021



Source: Australian Bureau of Statistics, 2021

## Aboriginal and Torres Strait Islander peoples in Australia

Aboriginal and Torres Strait Islander peoples make up 3% of the Australian population, with the greatest proportions living in New South Wales (35%) and Queensland (28%) (Table 1).

**Table 1** Number and proportion of Aboriginal and Torres Strait Islander peoples living in each state and territory, 2021

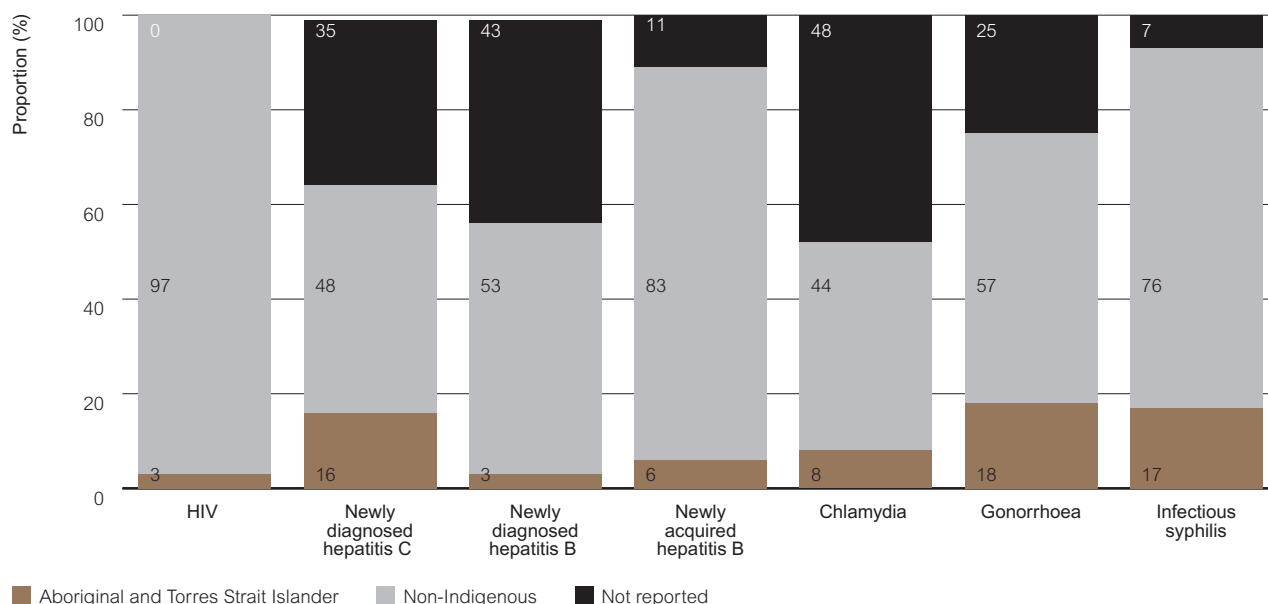
State/Territory	Estimated resident Aboriginal and Torres Strait Islander population	Proportion of total Australian Aboriginal and Torres Strait Islander population
Australian Capital Territory	9 544	1%
New South Wales	339 546	35%
Northern Territory	76 736	8%
Queensland	273 224	28%
South Australia	52 083	5%
Tasmania	33 894	3%
Victoria	120 037	12%
Western Australia	78 698	8%
<b>Total</b>	<b>984 002</b>	<b>100%</b>

Source: Estimates of Aboriginal and Torres Strait Islander Australians, June 2021, Australian Bureau of Statistics.

## Number of notifications and notification rates in Aboriginal and Torres Strait Islander peoples

Aboriginal and Torres Strait Islander peoples make up 3% of the Australian population but accounted for a disproportionate level (3% to 40%) of all notifications of STIs and BBVs (except for HIV and newly acquired hepatitis B) in 2021 (Figure 4). For many infections, this proportion may not be truly representative due to the incomplete reporting of Aboriginal and Torres Strait Islander status.

**Figure 4** Proportion of all notifications by Aboriginal and Torres Strait Islander status, 2021



Note: Proportions may not add to 100% due to rounding; Due to inconsistent data collection across jurisdictions, newly acquired hepatitis C notifications are no longer included in this report.

Source: National HIV Registry and Australian National Notifiable Diseases Surveillance System; see [Methodology](#) for details.

In 2021, notification rates of STIs and blood borne viruses in Aboriginal and Torres Strait Islander peoples were up to seven times as high as among non-Indigenous people (Table 2).

**Table 2** Number and notifications rate<sup>b</sup> of sexually transmissible infections and blood borne viruses in Australia by Aboriginal and Torres Strait Islander status, 2021

Notifications of sexually transmissible infections and viral hepatitis	Aboriginal and Torres Strait Islander peoples		Non-Indigenous people		Fold difference	Excluded jurisdictions <sup>c</sup>
	Number <sup>a</sup>	Rate <sup>b</sup>	Number	Rate <sup>b</sup>		
Chlamydia	7 214	1 161.8	37 992	365.7	3.2	NSW, QLD, TAS, VIC
Gonorrhoea	4 653	484.1	15 251	93.1	5.2	None
Newly acquired hepatitis B	5	0.7	66	0.3	2.3	None
Newly diagnosed hepatitis B (ALL)	156	31	2 526	14.7	2.1	NSW, VIC
Newly diagnosed hepatitis C (ALL)	1 232	194.3	3 615	26.2	7.4	NSW, VIC
HIV	17	2.3	535	2.2	1	None
Infectious syphilis	959	107.2	4 233	19.3	5.6	None

a Jurisdictions in which Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications in each of the past five years.

b Age-standardised rate per 100 000 population.

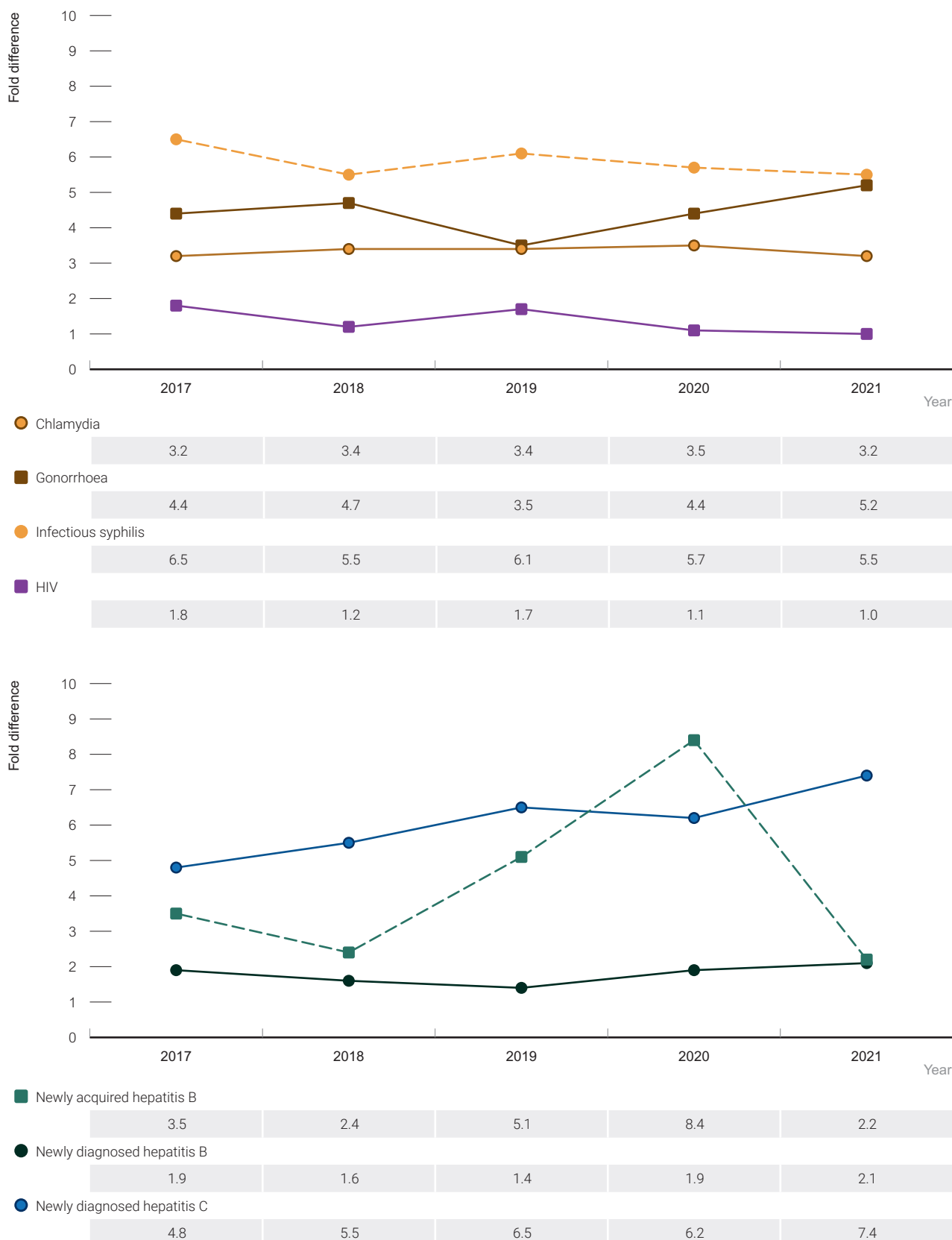
c Jurisdictions in which Aboriginal and Torres Strait Islander status was reported for less than 50% of notifications.

Source: National Notifiable Diseases Surveillance System; National HIV Registry; see [Methodology](#) for details.



Between 2017 and 2021 the difference between the age-standardised notification rates between Aboriginal and Torres Strait Islander peoples and non-Indigenous people, expressed as a ratio, remained stable for chlamydia, gonorrhoea, infectious syphilis, HIV, newly diagnosed hepatitis B, and newly diagnosed hepatitis C (Figure 5).

**Figure 5** Notification rates ratio by Aboriginal and Torres Strait Islander status and disease, 2017–2021



Source: National Notifiable Diseases Surveillance System (see [Methodology](#) for details).

### 3 HIV

Please see p. 6 for summary.

#### HIV notifications

Trends in HIV notifications to 2021 were likely influenced by COVID-19, including changes to sexual behaviour, healthcare access and testing practices and travel.

All jurisdictions have high completeness rates (>95%) for the reporting of Aboriginal and Torres Strait Islander status in HIV notifications for each ten years of reporting (2012–2021) and thus data from all jurisdictions are included.

There were 552 new HIV notifications in Australia in 2021, of which 17 (3%) were among Aboriginal and Torres Strait Islander peoples<sup>(1)</sup>. All Aboriginal and Torres Strait Islander HIV notifications were reported as male and the median age at diagnosis was 38 years (Table 3).

Between 2012 and 2016, the number of HIV notifications in Aboriginal and Torres Strait Islander peoples increased steadily, from 35 notifications in 2012 to 47 notifications in 2016 followed by a steady reduction between 2016 and 2021 to 17 notifications. A similar trend was seen among males and females with more notifications among males than females for every year from 2012 to 2021.

**Table 3 HIV notifications in Aboriginal and Torres Strait peoples, by characteristic, 2017–2021**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Characteristic</b>										
<b>Total cases<sup>a</sup></b>	35	27	34	40	47	31	33	25	17	17
<b>Gender<sup>b</sup></b>										
Male	28	23	25	36	41	23	30	20	15	17
Female	7	4	8	4	5	7	3	5	1	0
<b>Median age in years</b>	27	36	34	36	31	33	28	31	36	38
<b>Newly acquired HIV<sup>c</sup></b> (% of notifications)	11 31%	9 33%	8 24%	12 30%	14 30%	7 23%	8 24%	9 36%	7 41%	3 18%
<b>Late HIV diagnosis<sup>d</sup> %</b>	31%	40%	32%	31%	25%	30%	27%	24%	7%	43%
<b>Advanced HIV diagnosis, %</b>	24%	25%	19%	17%	14%	7%	23%	10%	0%	21%
<b>State/Territory</b>										
Australian Capital Territory	0	0	1	0	0	0	1	0	0	0
New South Wales	12	8	7	7	10	8	11	7	5	1
Northern Territory	2	1	1	1	5	1	1	0	0	1
Queensland	14	9	14	13	20	11	13	9	7	6
South Australia	1	2	0	2	2	5	1	2	2	0
Tasmania	0	2	2	2	0	1	0	1	0	1
Victoria	5	5	6	8	6	2	4	4	1	3
Western Australia	1	0	3	7	4	3	2	2	2	5
<b>HIV exposure category<sup>e</sup>, %</b>										
Male-to-male sex <sup>e</sup>	69%	30%	38%	55%	57%	42%	55%	48%	53%	53%
Male-to-male sex and injection drug use	6%	19%	9%	10%	15%	6%	12%	20%	29%	12%
Injection drug use	6%	22%	26%	15%	4%	23%	3%	16%	0%	18%
Heterosexual sex	17%	30%	18%	18%	21%	26%	24%	16%	12%	18%
Other/undetermined exposure	3%	0%	9%	3%	2%	3%	6%	0%	6%	0%

a Total includes Transgender. Not adjusted for multiple reporting.

b Doesn't include 'Other/not reported'.

c Newly acquired HIV was defined as a new HIV diagnosis with a negative or indeterminate HIV antibody test result or a diagnosis of primary HIV within one year before HIV diagnosis.

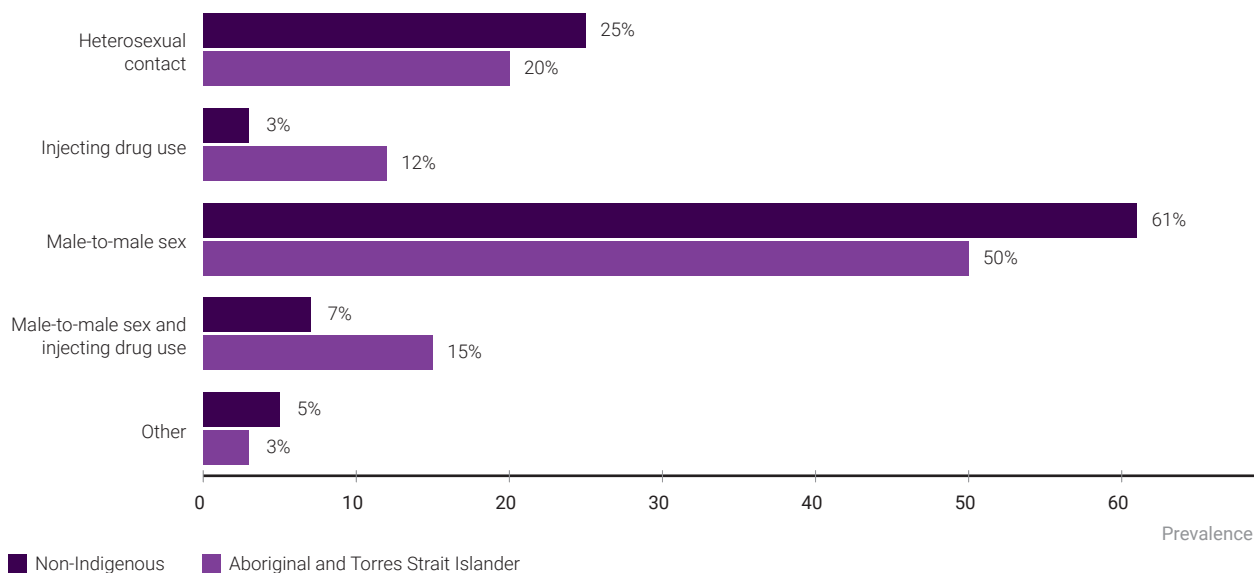
d Late HIV diagnosis was defined as newly notified HIV with a CD4+ cell count of less than 350 cells/ $\mu$ L, and advanced HIV as newly notified infection with a CD4+ cell count of less than 200 cells/ $\mu$ L. Newly acquired HIV was not categorised as a late or advanced diagnosis irrespective of CD4+ cell count.

e Includes males who had sex with both males and females.

Source: State and Territory health authorities; includes all jurisdiction.

Between 2017 and 2021, by exposure classification, the proportion of notifications attributed to injection drug use was 12% among Aboriginal and Torres Strait Islander peoples compared with 3% among non-Indigenous people. The proportion of HIV notifications attributed to male-to-male sex was 50% among Aboriginal and Torres Strait Islander peoples, compared with 61% among non-Indigenous people. Otherwise, similar proportions were observed between Aboriginal and Torres Strait Islander peoples and non-Indigenous people in other exposure classifications (Figure 6).

**Figure 6 HIV notification exposure category by Aboriginal and Torres Strait Islander status, 2017–2021**



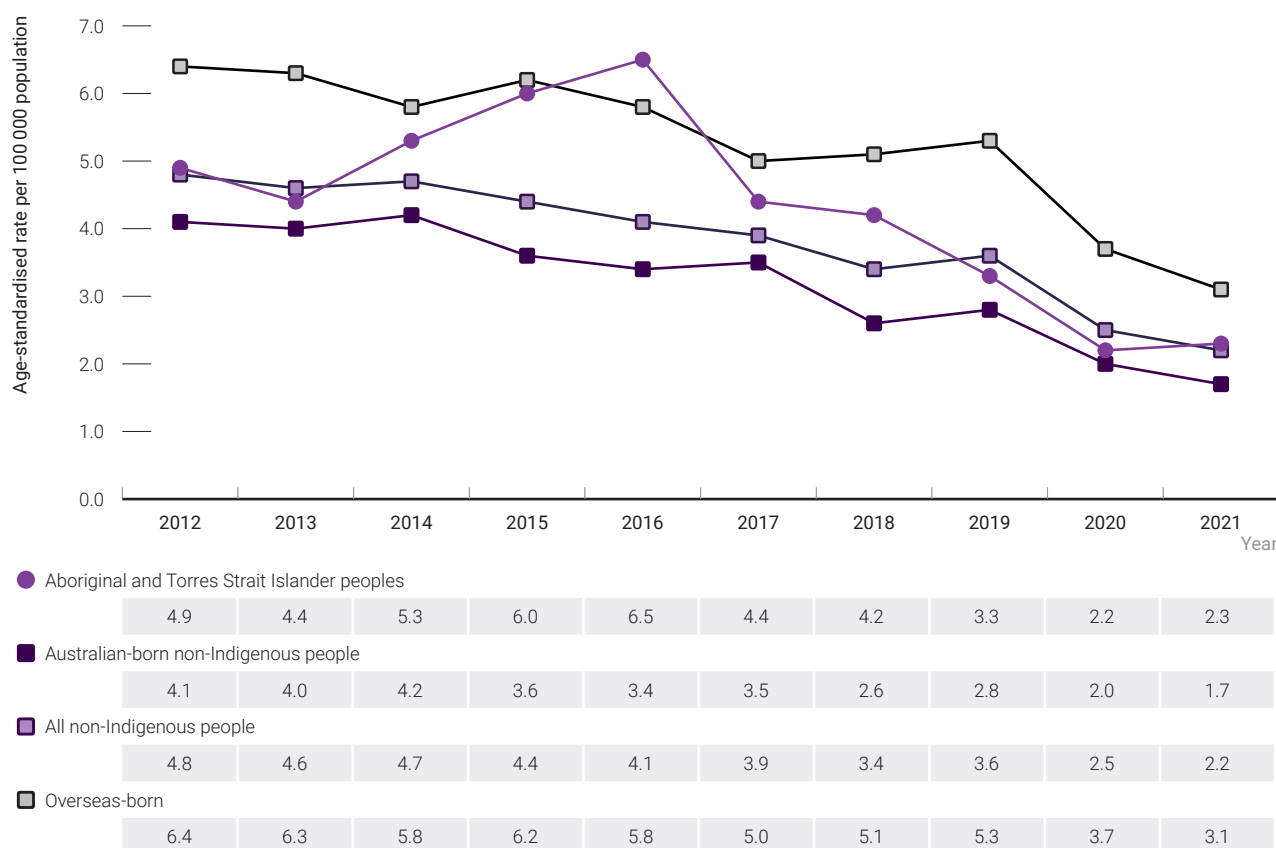
Source: State and territory health authorities; see [Methodology](#) for detail.

## Notification rates

To allow a more appropriate comparison between Aboriginal and Torres Strait Islander peoples and non-Indigenous people, age-standardised notification rates per 100 000 population were calculated, by taking into consideration the differences in the distribution of age within these populations.

Between 2012 and 2016, the HIV notification rate among Aboriginal and Torres Strait Islander peoples increased from 4.9 to 6.5 per 100 000 population and then declined to 3.3 per 100 000 population in 2019. In 2021, the HIV notification rate was 2.3 per 100 000 among Aboriginal and Torres Strait Islander peoples and was 2.2 per 100 000 among all non-Indigenous people. HIV notification rates for Aboriginal and Torres Strait Islander peoples and non-Indigenous people were similar between 2017 and 2021. Trends in HIV notification rates in the Aboriginal and Torres Strait Islander population are based on small numbers and may reflect localised occurrences rather than national patterns (Figure 7).

**Figure 7 HIV notification rate by Aboriginal and Torres Strait Islander status per 100 000 population, 2012–2021**



Source: State and territory health authorities; see [Methodology](#) for detail.

By age group, HIV notification rates fluctuated between 2012 and 2017 among Aboriginal and Torres Strait Islander peoples aged 34 years or younger and 35 years or older. Among these populations, HIV notification rates declined between 2017 and 2021 and in 2021, were 1.4 per 100 000 among those aged 34 years or younger, and 3.1 among those aged 35 years or older (Figure 8).

Similar patterns were seen among non-Indigenous people and in 2021, HIV notification rates were 2.1 per 100 000 among those aged 34 years or younger, and 2.2 per 100 000 among those aged 35 years or older. Due to small numbers of notifications by age group among Aboriginal and Torres Strait Islander peoples, trends over time should be interpreted with caution.

**Figure 8 HIV notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and age group, 2011–2020**

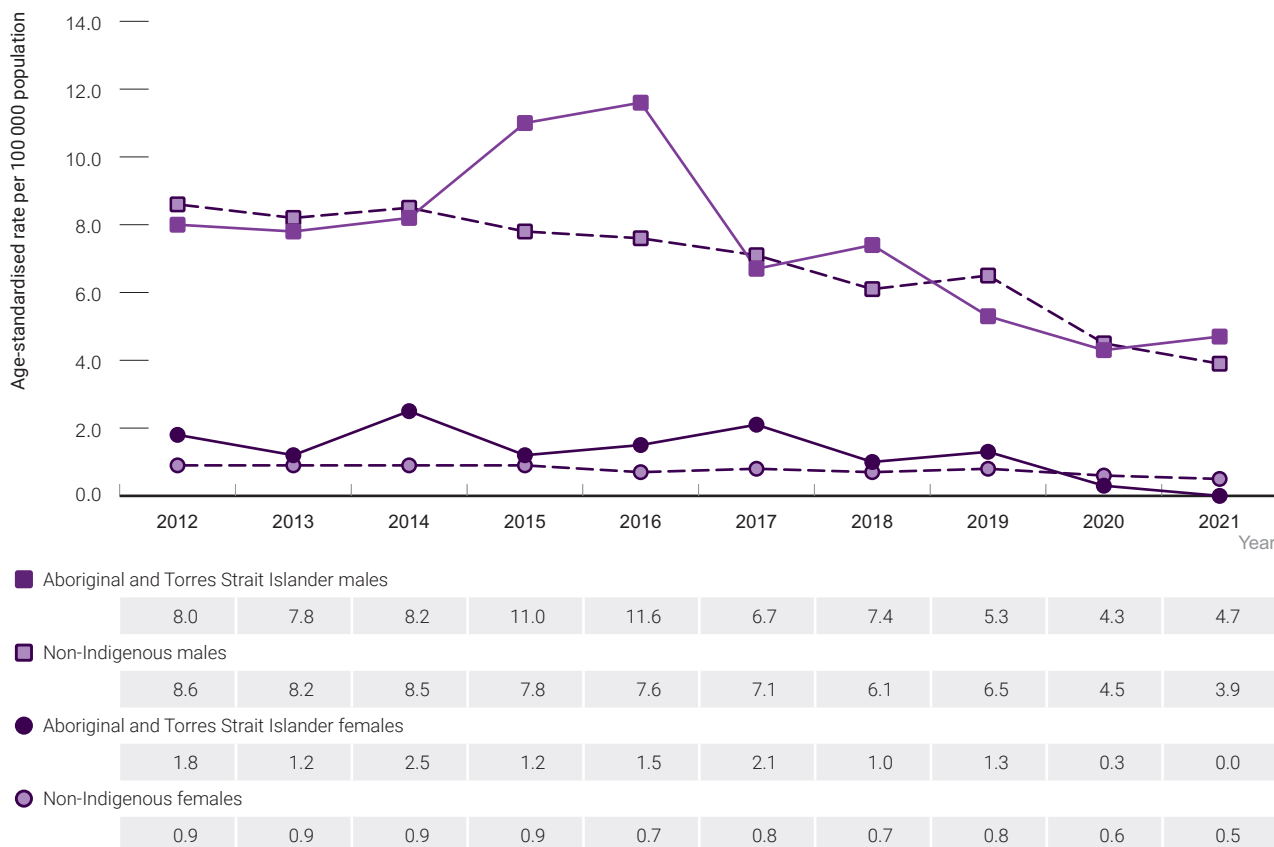


Source: State and territory health authorities; see [Methodology](#) for detail.

HIV notification rates among Aboriginal and Torres Strait Islander males steadily increased from 8.0 per 100 000 in 2012 to 11.6 per 100 000 in 2016 and then declined by 54% to 5.3 per 100 000 in 2019. Between 2019 and 2021 the rate declined by 11% to 4.7 per 100 000. HIV notification rates among Aboriginal and Torres Strait Islander males were similar to non-Indigenous males between 2017 and 2021 (Figure 9).

Notification rates among Aboriginal and Torres Strait Islander females and non-Indigenous females remained below the rates of males in both populations for every year between 2012 and 2021. The HIV notification rate among Aboriginal and Torres Strait Islander females remained low during this period and was 0.0 per 100 000 in 2021 (Figure 9).

**Figure 9 HIV notification rate per population by Aboriginal and Torres Strait Islander status and gender, 2012–2021**

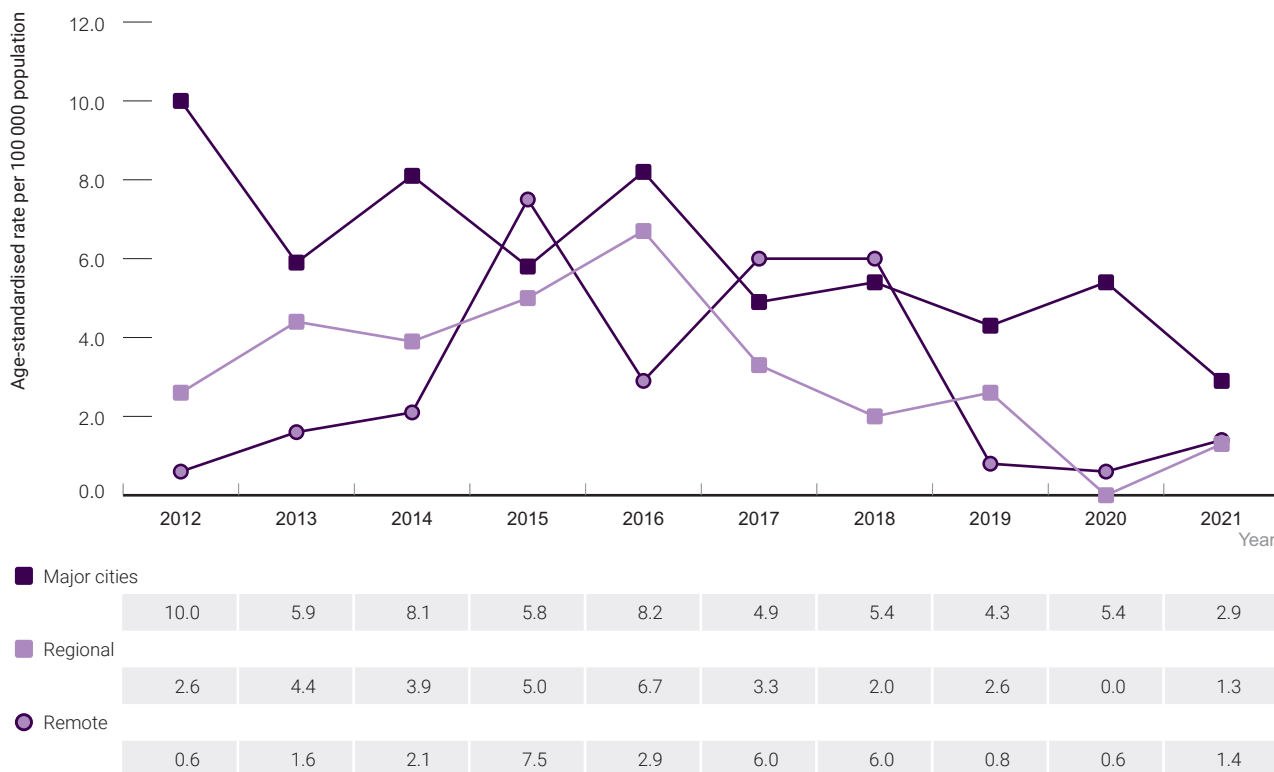


Source: State and territory health authorities; see [Methodology](#) for detail.



HIV notification rates among Aboriginal and Torres Strait Islander peoples residing in regional areas more than doubled between 2012 and 2016 from 2.6 to 6.7 per 100 000, and then declined by 80% between 2016 and 2021 to 1.3 per 100 000. In major cities the HIV notification rate declined from 10.0 per 100 000 in 2012 to 2.9 per 100 000 in 2021 with fluctuations in the interim. Due to the small number of HIV notifications, the HIV notification rate in remote areas fluctuated between 2012 and 2021 and was 1.4 per 100 000 in 2021 (Figure 10). Caution should be taken in interpretation of these trends, due to small numbers of notifications.

**Figure 10 HIV notification rate per 100 000 in Aboriginal and Torres Strait Islander peoples by area of residence, 2012–2021**



Source: State and territory health authorities; see [Methodology](#) for detail.

## Prevalence

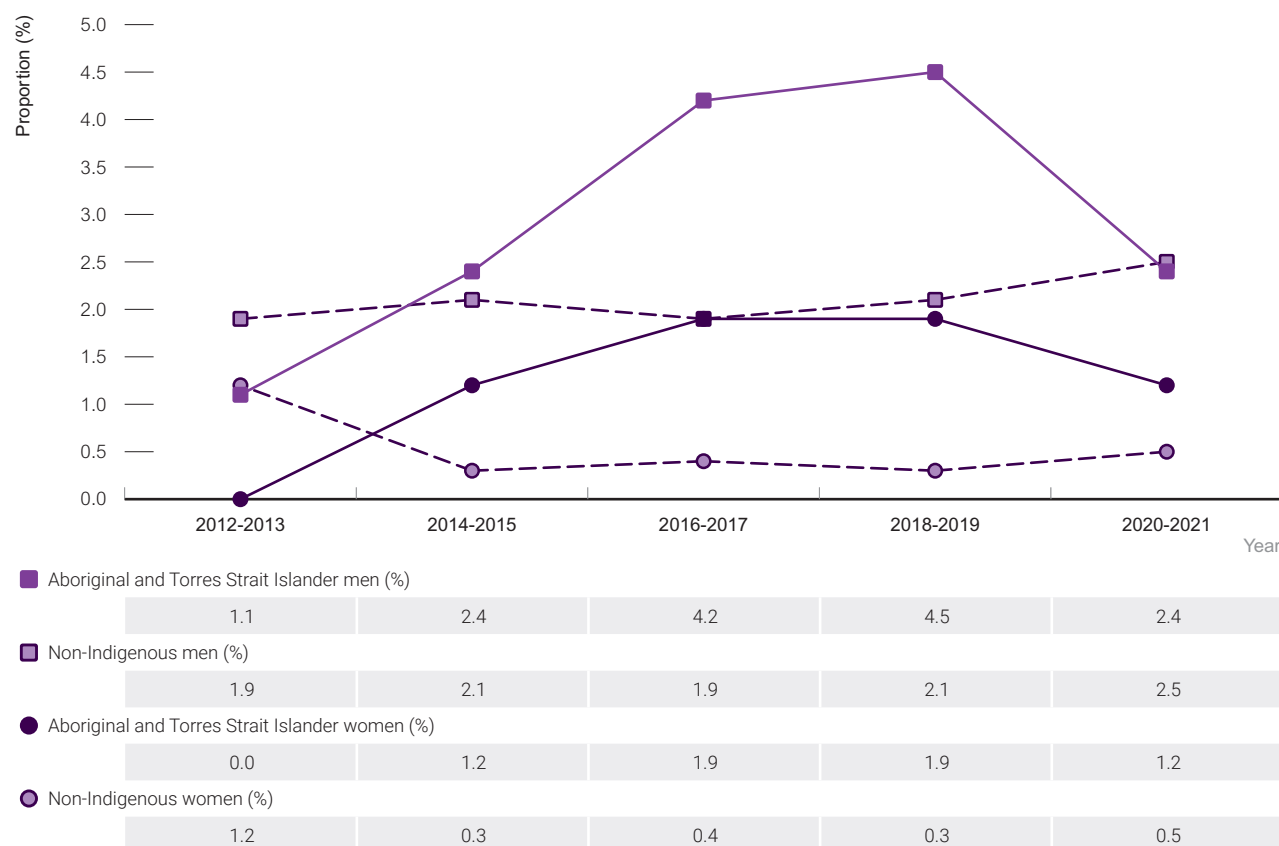
HIV prevalence is the proportion of people who are living with HIV in a given year. In 2021, an estimated 580 Aboriginal and Torres Strait Islander peoples were living with HIV in Australia. The estimated HIV prevalence among Aboriginal and Torres Strait Islander peoples aged 15 years or older was 0.10% (range 0.09 % to 0.11%) in 2021 <sup>(1)</sup>.

Periodic surveys have also measured HIV prevalence among subpopulations of Aboriginal and Torres Strait Islander peoples, specifically those who engage with needle and syringe programs. These data may not be representative of all Aboriginal and Torres Strait Islander peoples who inject drugs.

Data collected annually from the Australian Needle Syringe Program Survey (ANSPS) <sup>(4)</sup> provide insight into the demographics, risk behaviours, and blood borne virus prevalence among people who inject drugs who attend needle and syringe programs. In the periods from 2012–2013 to 2020–2021, the proportion of participants in the ANSPS identifying as Aboriginal and/or Torres Strait Islander increased from 12% to 22%.

The overall HIV prevalence among Aboriginal and Torres Strait Islander respondents in the ANSPS was 2.6% (data not shown). As reported in the survey, between 2012–2013 and 2020–2021, HIV prevalence increased from 1.1% to 2.4% among Aboriginal and Torres Strait Islander men, and from 0.0% to 1.2% among Aboriginal and Torres Strait Islander women. For the years 2020–2021, the HIV prevalence among non-Indigenous men and women fluctuated and was 2.5 and 0.5 respectively (Figure 11).

**Figure 11 HIV prevalence in needle and syringe program participants by Aboriginal and Torres Strait Islander status and gender, 2012–2021**



Note: Data presented in two-year groupings due to small numbers.

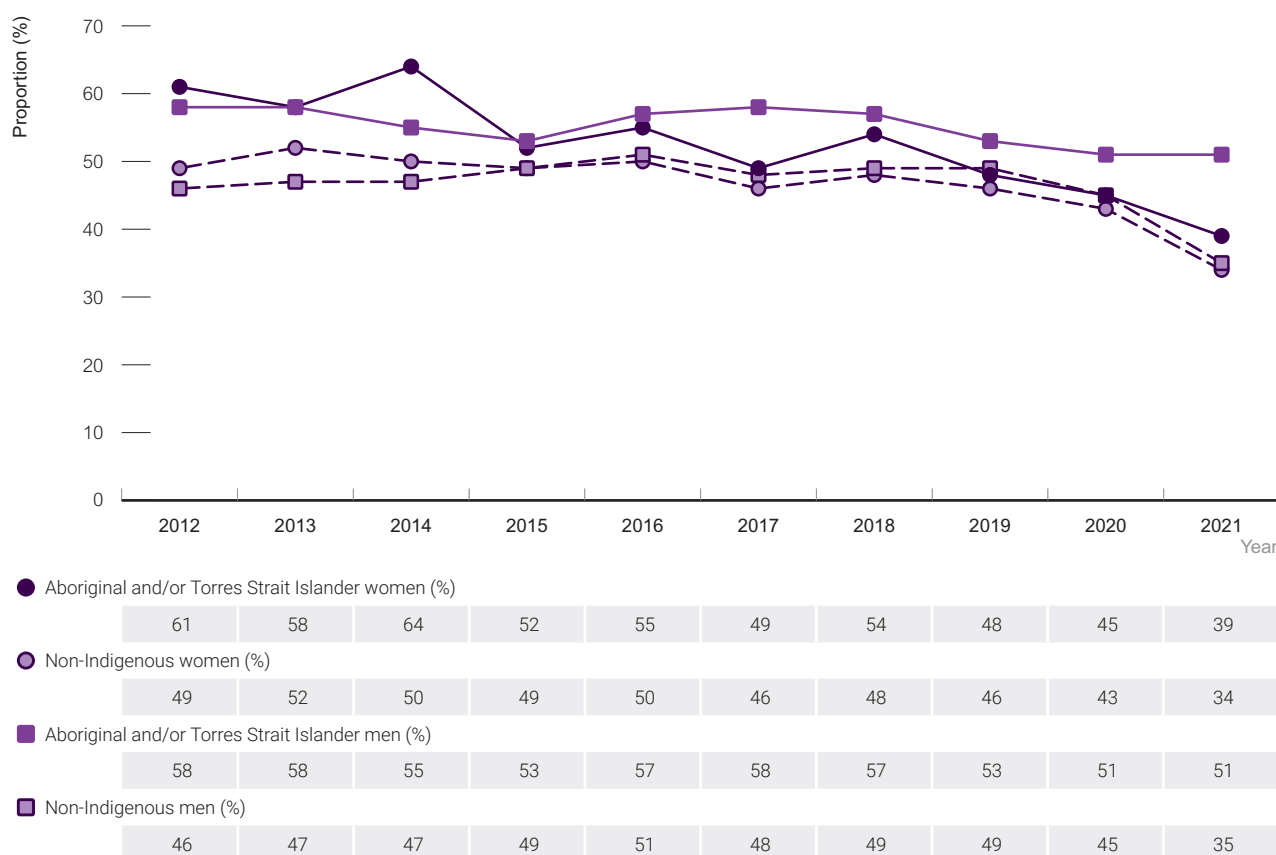
Source: Australian Needle Syringe Program Survey.

## Testing

National testing guidelines recommend HIV testing in multiple contexts, including after HIV risk exposure, during antenatal care, and for particular priority populations. The *Fifth National Aboriginal and Torres Strait Islander blood borne viruses and sexually transmissible infections strategy 2018–2022* prioritises annual testing for STIs, including HIV.

Among participants of the ANSPS, a higher proportion of Aboriginal and Torres Strait Islander women than non-Indigenous women reported having had a HIV test in the past 12 months for each year between 2012 and 2021 (39% vs 34% in 2021). Similarly, a higher proportion of Aboriginal and Torres Strait Islander men than non-Indigenous men reported a HIV test in the past 12 months each year between 2012 and 2021 (51% vs 35% in 2021) (Figure 13). These data may not be representative of all Aboriginal and Torres Strait Islander peoples who inject drugs.

**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 by Aboriginal and Torres Strait Islander status and gender, 2012–2021



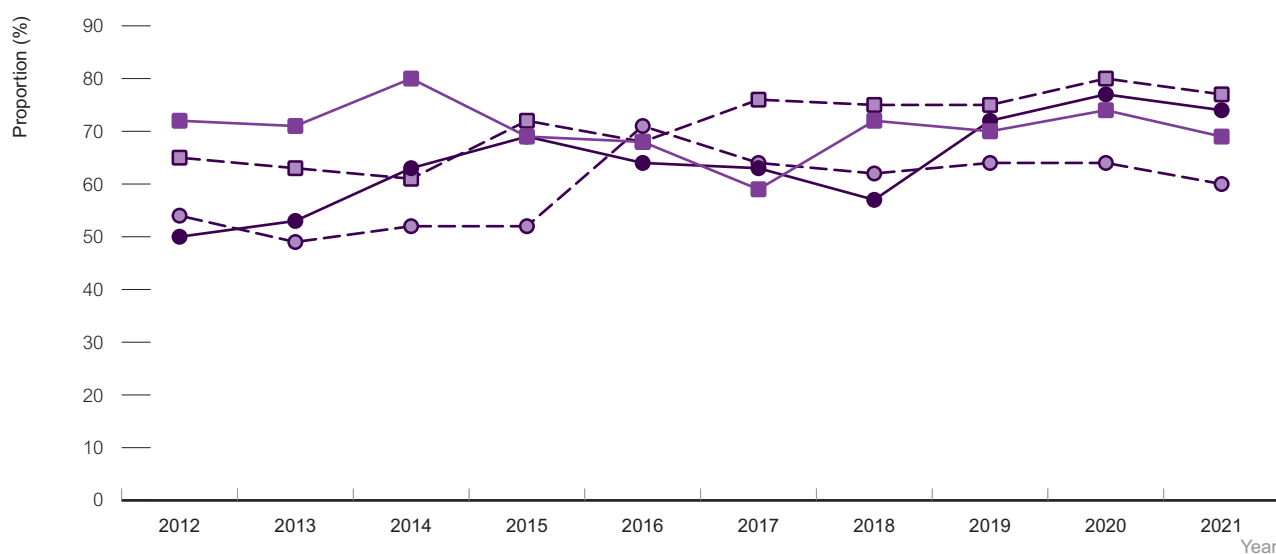
Source: Australian Needle Syringe Program Survey; see [Methodology](#) for detail.

## Condom use

According to the ANSPS, more than half of Aboriginal and Torres Strait Islander respondents (who used injection drugs) reported inconsistent condom use with casual partners in all years 2012–2021. This proportion fluctuated among men (range 59–80%) but increased among women from 50% in 2012 to 74% in 2021. Among non-Indigenous people, inconsistent condom use increased among women (54% in 2012 to 60% in 2021) and men (65% in 2012 to 77% in 2021). In 2021, inconsistent condom use with casual partners was higher among Aboriginal and Torres Strait Islander women than among non-Indigenous women (74% and 60%, respectively), and lower among Aboriginal and Torres Strait Islander men than among non-Indigenous men (69% and 77%, respectively) (Figure 13).

As above, these data may not be representative of all Aboriginal and Torres Strait Islander peoples who inject drugs.

**Figure 13** Prevalence of inconsistent condom use with casual partners in the last month<sup>a</sup> among people who inject drugs attending needle and syringe programs by Aboriginal and Torres Strait Islander status and gender, 2012–2021



● Aboriginal and/or Torres Strait Islander women (%)

50	53	63	69	64	63	57	72	77	74
----	----	----	----	----	----	----	----	----	----

○ Non-Indigenous women (%)

54	49	52	52	71	64	62	64	64	60
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■ Aboriginal and/or Torres Strait Islander men (%)

72	71	80	69	68	59	72	70	74	69
----	----	----	----	----	----	----	----	----	----

■ Non-Indigenous men (%)

65	63	61	72	68	76	75	75	80	77
----	----	----	----	----	----	----	----	----	----

a Denominator is those who had sex with one or more casual partners in the last month.

Source: Australian Needle Syringe Program Survey; see [Methodology](#) for detail.

## 4 Hepatitis C

Please see p. 7 for summary. Due to data availability, data describing newly acquired hepatitis C are not presented in this report. Future reporting will include data describing newly acquired hepatitis C.

### Hepatitis C notifications

This section focuses on notified cases of hepatitis C infection, which means that a person previously not known to have the infection has since been tested and now found to have the infection, or in a person who has been cured, and subsequent testing has identified reinfection.

A total of 7487 hepatitis C notifications were reported in Australia in 2021; 1232 (16%) occurred among Aboriginal and Torres Strait Islander peoples, 3615 (48%) were among non-Indigenous people, and there were a further 2640 (35%) notifications among people for whom Aboriginal and Torres Strait Islander status was not reported <sup>(1)</sup>.

**Table 4 Hepatitis C notifications in Aboriginal and Torres Strait peoples, by characteristic, 2017–2021**

	2017	2018	2019	2020	2021
<b>Characteristic</b>					
<b>Total cases</b>	1461	1460	1429	1187	1232
<b>Gender<sup>a</sup></b>					
Female	470	431	413	384	373
Male	988	1028	1016	802	858
<b>Median age in years</b>	31	32.5	31	31	33
<b>State/Territory<sup>b</sup></b>					
Australian Capital Territory	20	23	16	19	11
New South Wales	524	546	392	320	249
Northern Territory	25	30	32	25	28
Queensland	380	421	564	490	540
South Australia	76	60	55	40	41
Tasmania	23	20	15	6	9
Victoria	114	105	62	17	37
Western Australia	299	255	293	270	317

a Excludes 'Not reported'; The National Notifiable Diseases Surveillance System includes the variable 'Sex' to indicate Sex/Gender. For reporting purposes, 'Gender' is used in place of 'Sex'.

b Numbers of notifications in some jurisdictions may be strongly influenced by completeness of Aboriginal and Torres Strait Islander status.

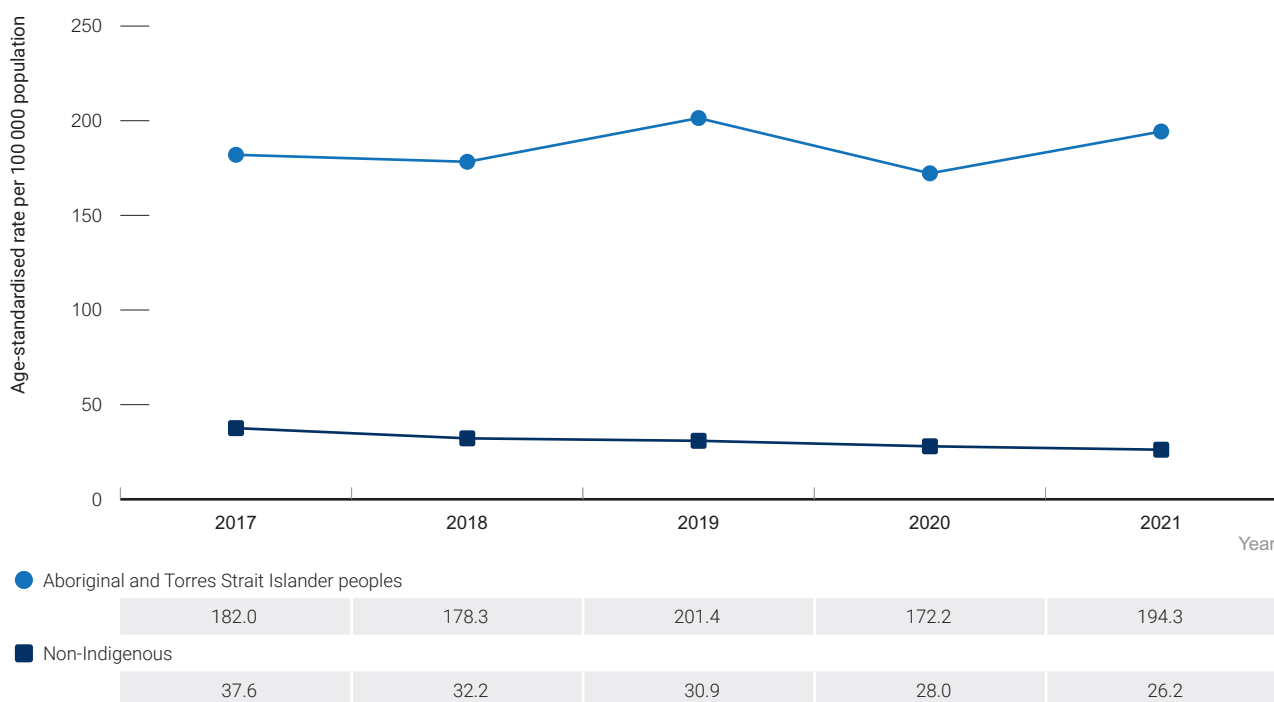
Source: National Notifiable Diseases Surveillance System.

Aboriginal and Torres Strait Islander hepatitis C notification rates are based on data from six jurisdictions (Australian Capital Territory, the Northern Territory, Queensland, South Australia, Tasmania, and Western Australia) where Aboriginal and Torres Strait Islander status was  $\geq 50\%$  complete for all hepatitis C notifications for each of the five years (2017–2021). Incomplete reporting of Aboriginal and Torres Strait Islander status can result in a misrepresentation of the true extent of the notifications in Aboriginal and Torres Strait Islander peoples and may not reflect national trends.

The age-standardised notification rate of hepatitis C in Aboriginal and Torres Strait Islander peoples fluctuated between 2017 and 2021 and was 194.3 per 100 000 in 2021.

By comparison, among non-Indigenous people, the hepatitis C notification rate steadily decreased by 30% from 37.6 per 100 000 in 2017 to 26.2 per 100 000 in 2021 (Figure 14). In 2021, the age-standardised hepatitis C notification rate for Aboriginal and Torres Strait Islander peoples was more than seven times as high as compared to non-Indigenous people (194.3 per 100 000 vs 26.2 per 100 000).

**Figure 14 Hepatitis C notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, 2017–2021**

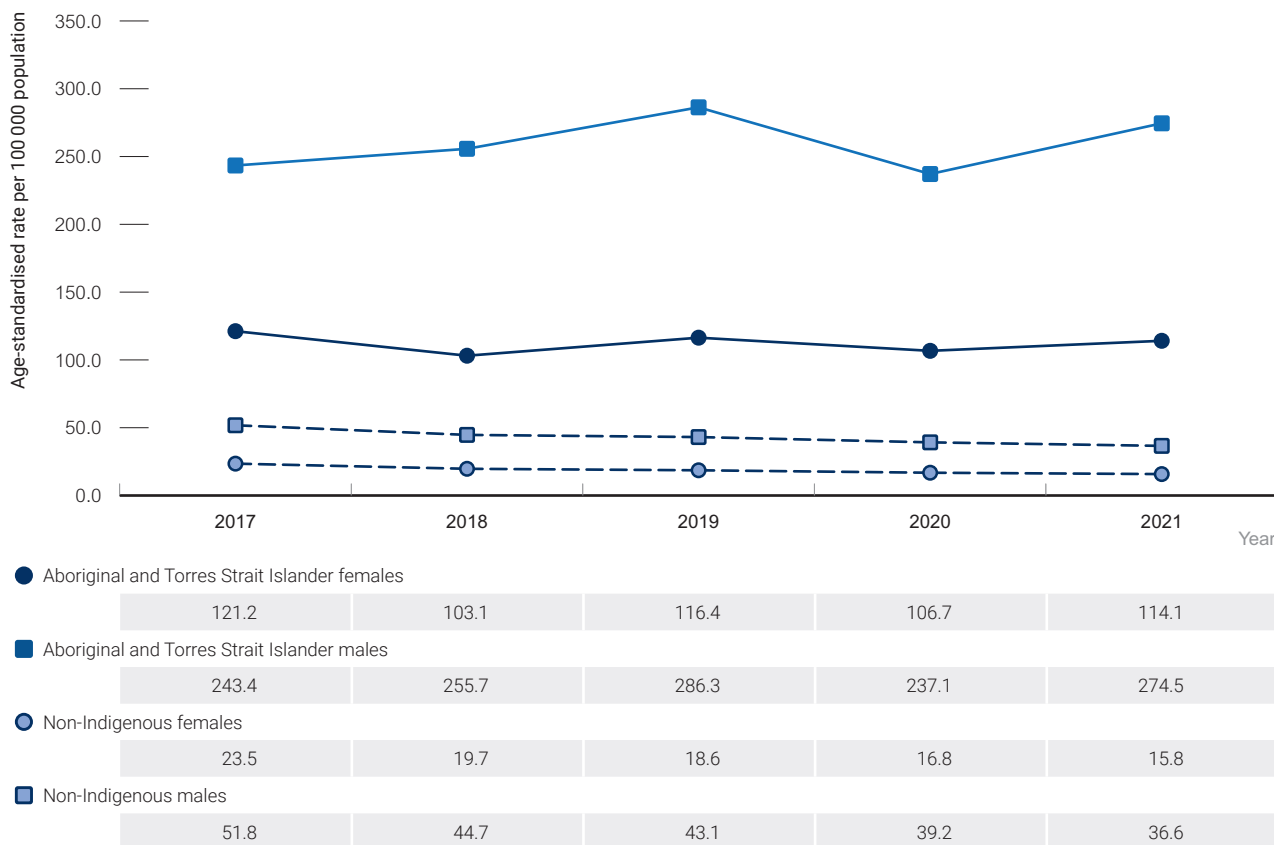


Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).



In all years from 2017 to 2021, the hepatitis C notification rate was higher in male and female Aboriginal and Torres Strait Islander peoples than in gender equivalent non-Indigenous people (Figure 15). Among Aboriginal and Torres Strait Island males, the hepatitis C notification rate fluctuated between 2017 and 2021 and was 274.5 per 100 000 in 2021. Between 2017 and 2021, among Aboriginal and Torres Strait Island females, the hepatitis C notification rate also fluctuated between 2017 and 2021 and was 114.1 per 100 000 in 2021 (Figure 15).

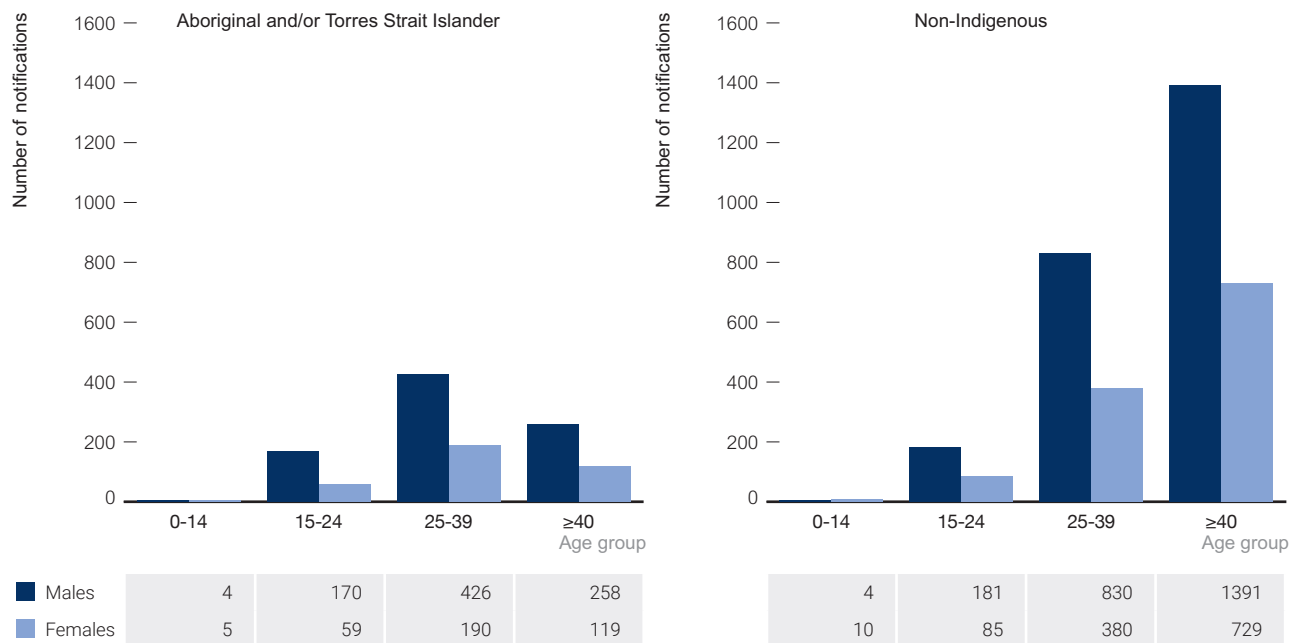
**Figure 15 Hepatitis C notification rates per 100 000 population by Aboriginal and Torres Strait Islander status and gender, 2017–2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

In 2021, over 50% of hepatitis C notifications in Aboriginal and Torres Strait Islander peoples occurred in people aged between 25 to 39 years. By comparison, among non-Indigenous people, most hepatitis C notifications occurred in people aged 40 years and older. Similar trends in proportions were seen among males and females (Figure 16).

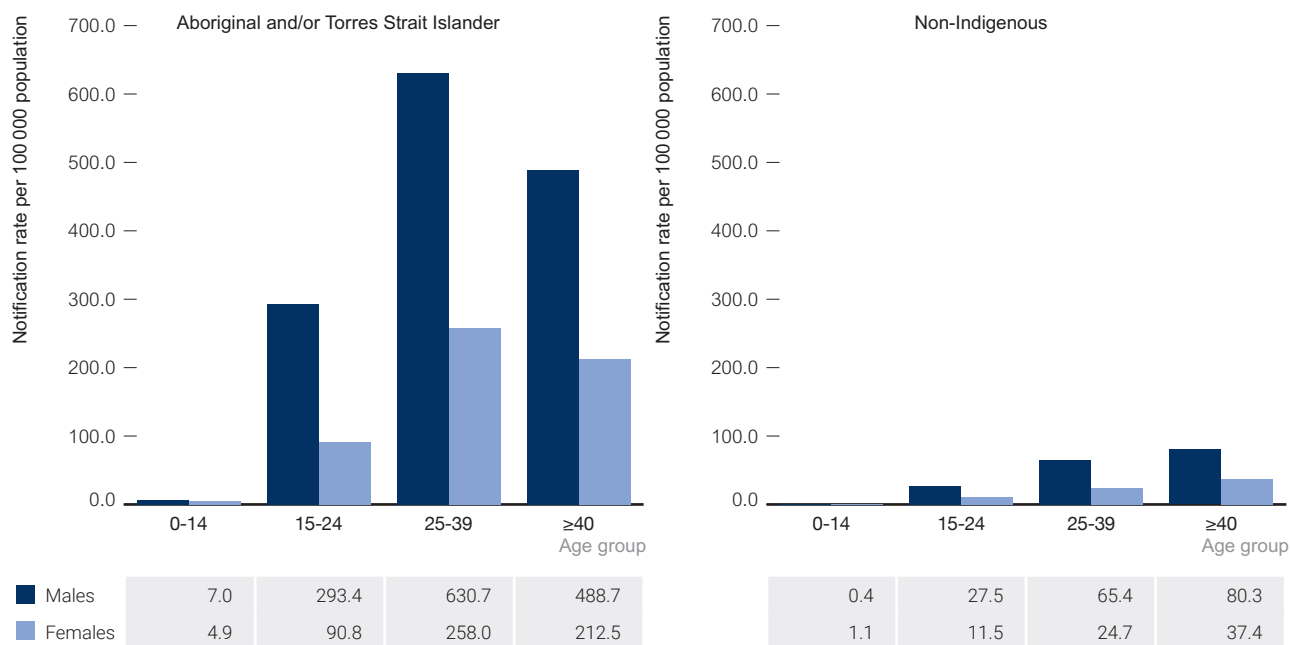
**Figure 16** Number hepatitis C notifications by Aboriginal and Torres Strait Islander status, age, and gender, 2021



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

In 2021, the highest notification rates among Aboriginal and Torres Strait Islander males and females were among those aged 25 to 39 years (630.7 and 258.0 per 100 000, respectively). By comparison, the highest notification rates among non-Indigenous males and females were among those aged 40 years and older (80.3 and 37.4 per 100 000, respectively). By gender, hepatitis C notification rates for Aboriginal and Torres Strait Islander males and females were higher than notification rates for non-Indigenous males and females for every age group in 2021 (Figure 17).

**Figure 17 Hepatitis C notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, gender, and age group, 2021**

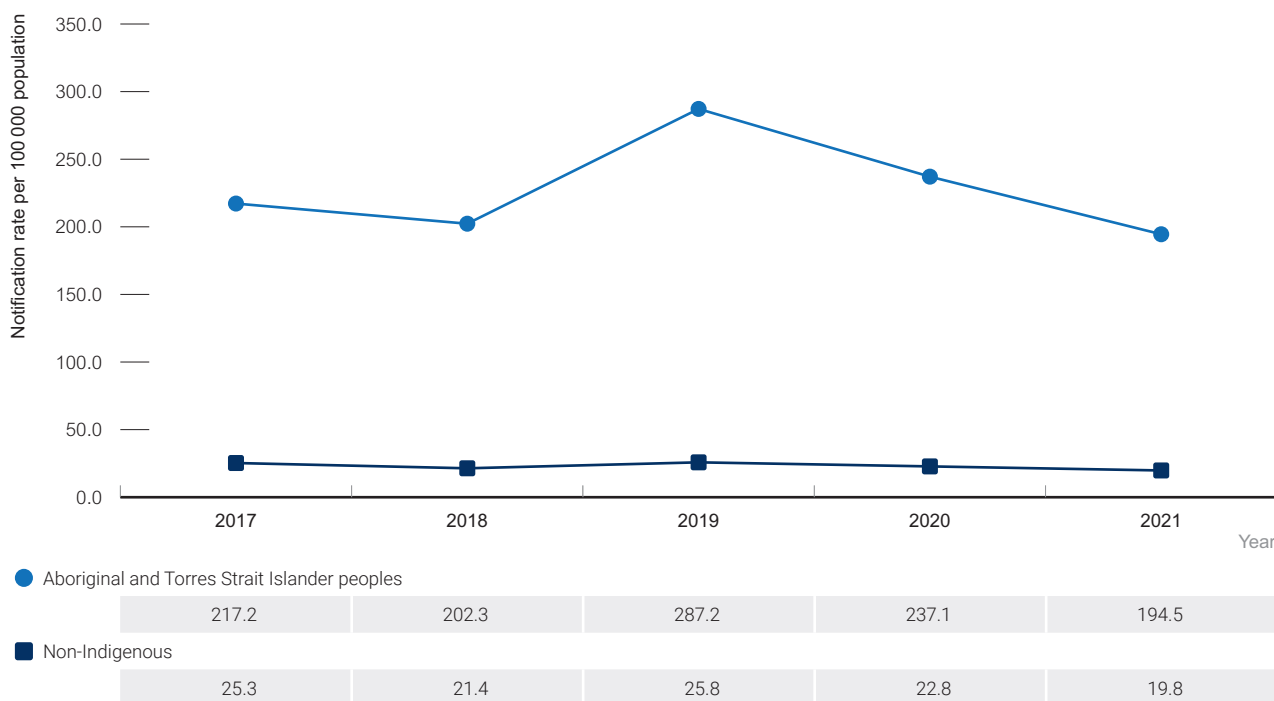


Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

Compared with older age-groups, most hepatitis C infections among those aged 15 to 24 years are recently acquired <sup>(4)</sup>. Therefore, trends in the rate of notifications among those aged 15 to 24 years are used here as a proxy for the incidence of hepatitis C infection.

The hepatitis C notification rate in Aboriginal and Torres Strait Islander peoples aged 15 to 24 years fluctuated between 2017 and 2021 and was 194.5 in 2021. By comparison, the hepatitis C notification rate among non-Indigenous people aged 15 to 24 years declined by 22% from 25.3 per 100 000 in 2017 to 19.8 per 100 000 in 2021 (Figure 18). A breakdown of hepatitis C notification rates by age-group and Aboriginal and Torres Strait Islander status can be found on the [Kirby Institute data site](#).

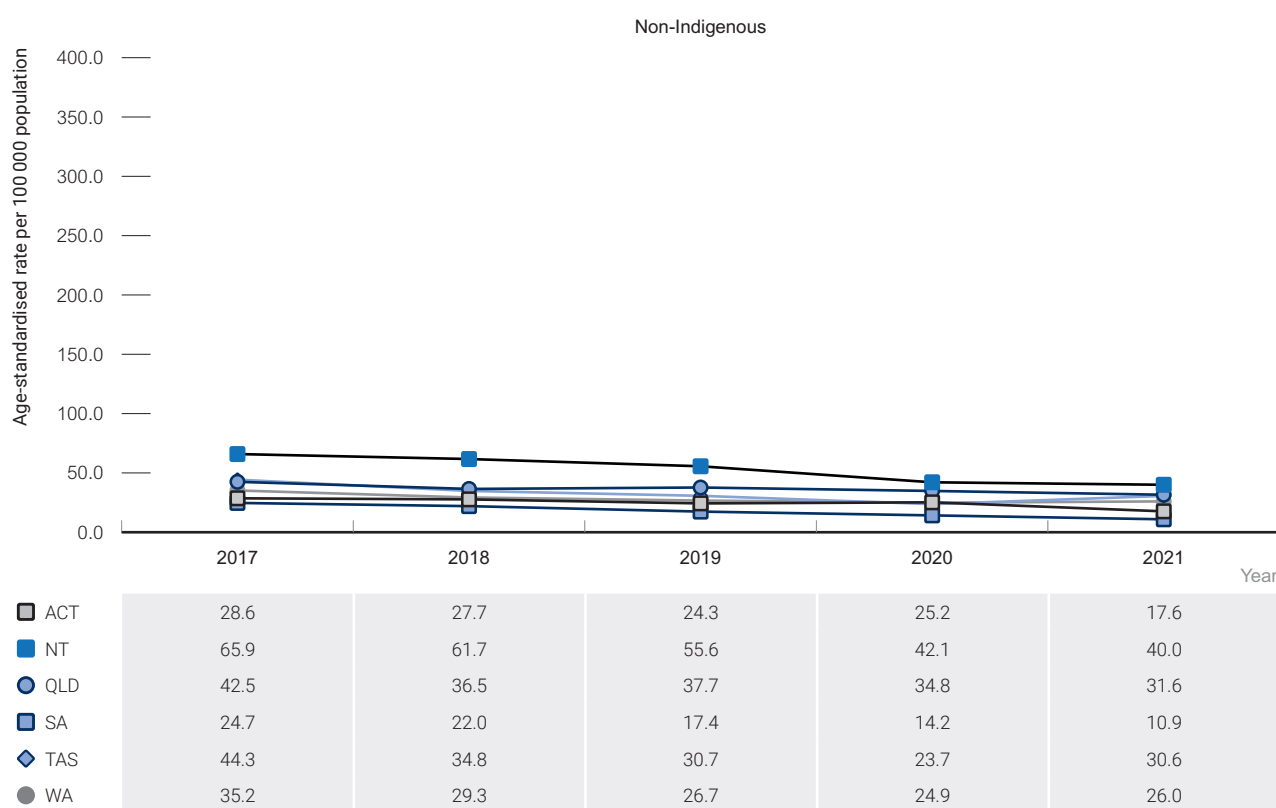
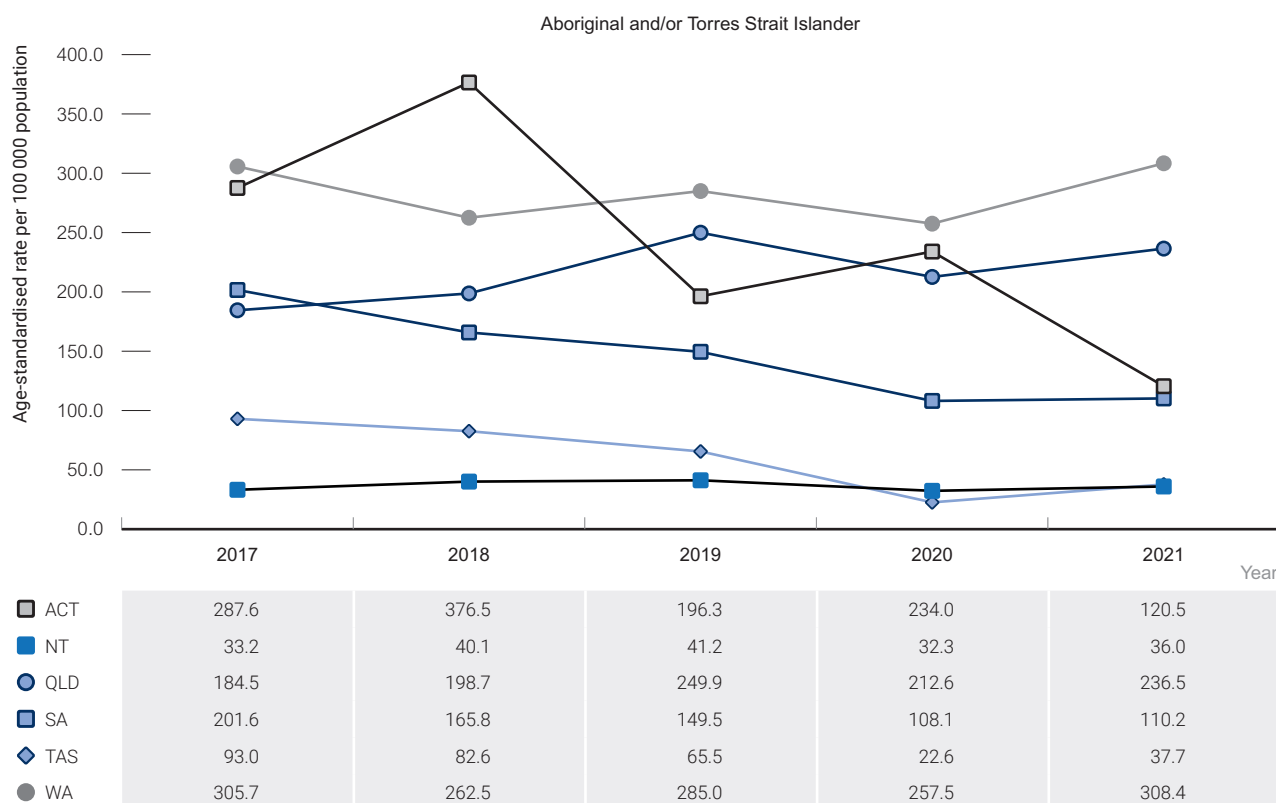
**Figure 18** Hepatitis C notification rate per 100 000 in people aged 15-24 years and younger by Aboriginal and Torres Strait Islander status, 2017–2021



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

In 2021, hepatitis C notification rates among Aboriginal and Torres Strait Islander peoples were highest in Western Australia (308.4 per 100 000), followed by Queensland (236.5 per 100 000), the Australian Capital Territory (120.5 per 100 000), and South Australia (110.2 per 100 000). For all reported states and territories, the hepatitis C notification rate fluctuated between 2017 and 2021 (Figure 19).

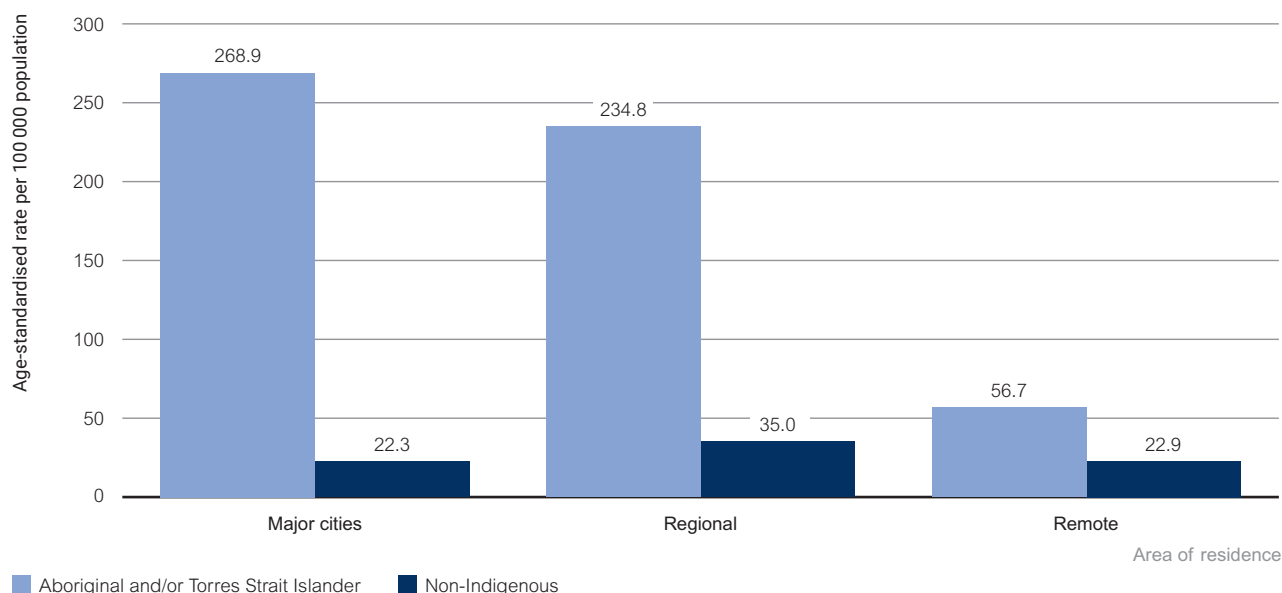
**Figure 19** Hepatitis C notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and state/territory, 2017–2021



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

In 2021, the hepatitis C notification rate in major cities was more than twelve times as high in Aboriginal and Torres Strait Islander peoples compared to non-Indigenous people (268.9 and 22.3 per 100 000, respectively). In regional areas, the rate among Aboriginal and Torres Strait Islander peoples was almost seven times as high as among non-Indigenous people (234.8 and 35.0 per 100 000, respectively). In remote areas, hepatitis C notification rates among the Aboriginal and/or Torres Strait Islander population were more than twice as high as among non-Indigenous people (56.7 and 22.9 per 100 000, respectively) (Figure 20).

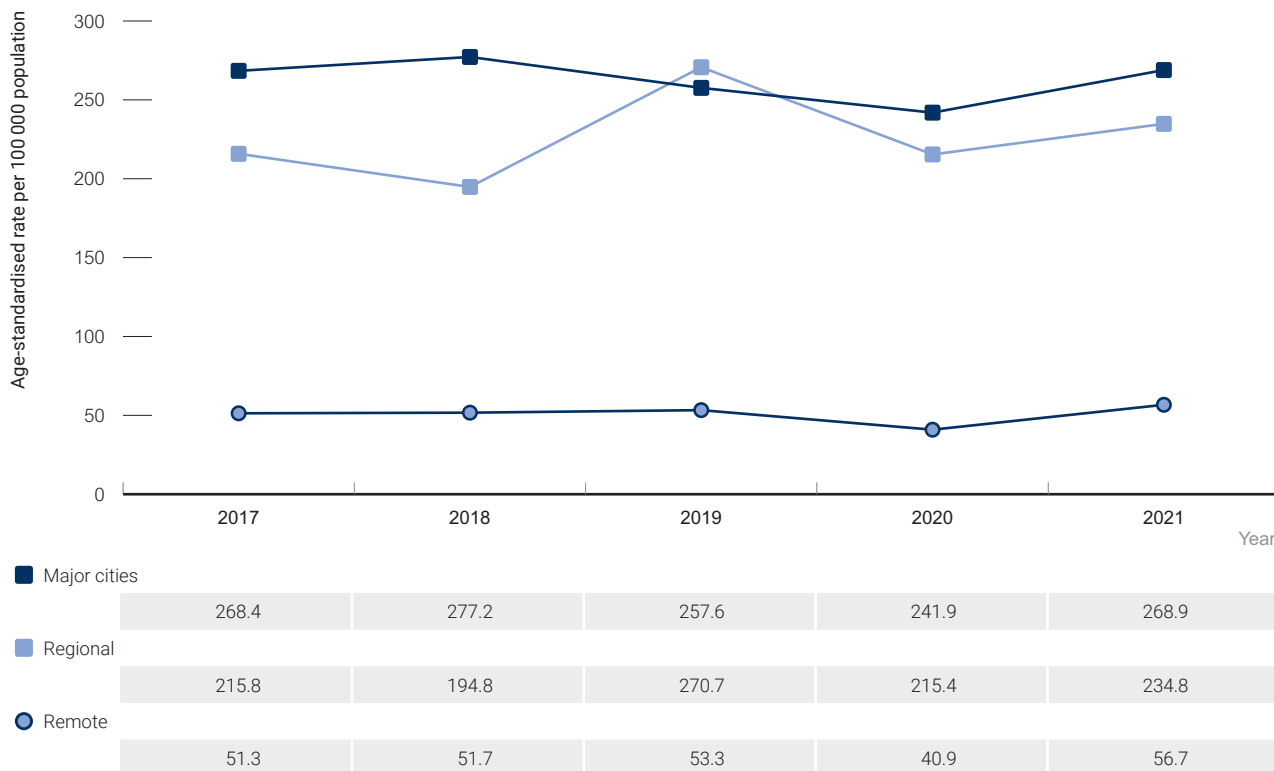
**Figure 20 Hepatitis C notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and area of residence, 2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

Hepatitis C notification fluctuated among Aboriginal and Torres Strait Islander peoples living in major cities, regional areas, and remote areas between 2017 and 2021. In 2021, rates were 268.9 per 100 000 in major cities, 234.8 per 100 000 in remote areas, and 56.7 per 100 000 in remote areas (Figure 21).

**Figure 21** Hepatitis C notification rate per 100 000 population among Aboriginal and Torres Strait Islander peoples by area of residence, 2017–2021



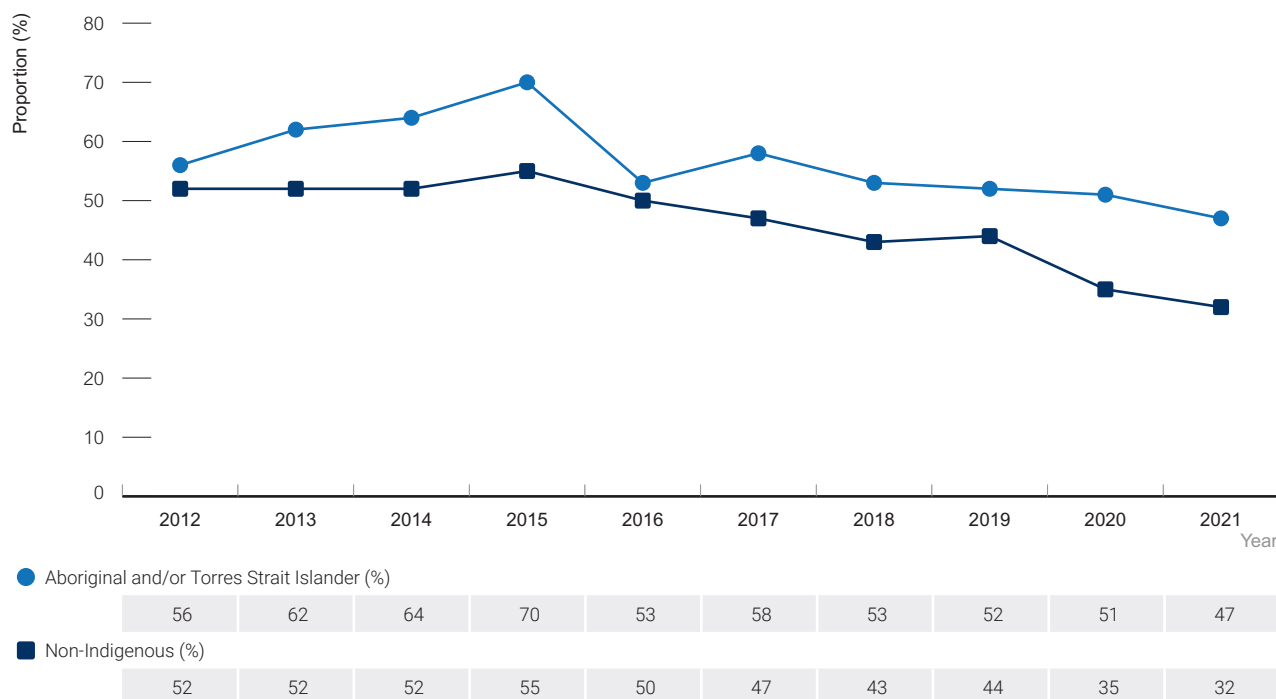
Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

## Hepatitis C prevalence

Australia's hepatitis C epidemic affects many people across differing age groups, ethnicities, and sociodemographic backgrounds including Aboriginal and Torres Strait Islander peoples. Key populations include people with a history of injection drug use and people with a history of incarceration.

Between 2012 and 2015, the hepatitis C antibody prevalence among Aboriginal and Torres Strait Islander participants of the ANSPS increased from 56% to 70%, and then declined to 47% in 2021. For each year between 2012 and 2021, hepatitis C antibody prevalence was higher among Aboriginal and Torres Strait Islander ANSPS respondents than among non-Indigenous respondents (Figure 22).

**Figure 22** Hepatitis C antibody prevalence in needle and syringe program participants by Aboriginal and Torres Strait Islander status, 2012–2021



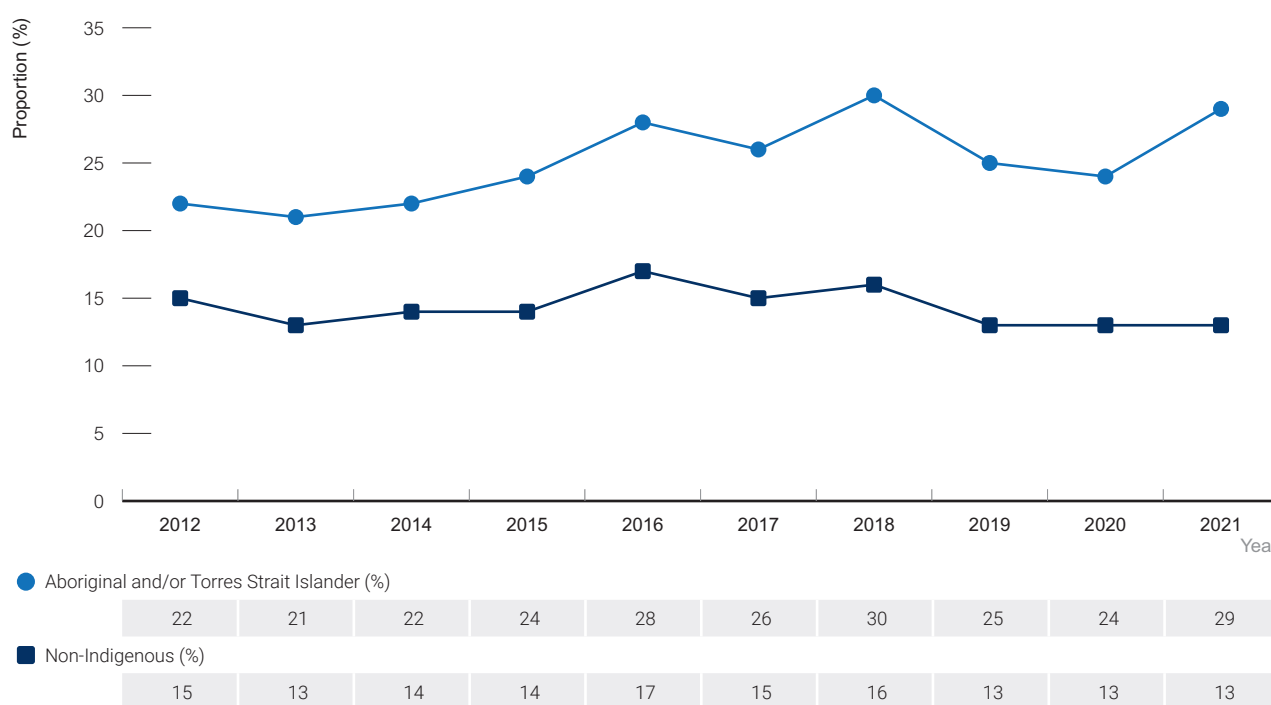
Source: Australian Needle Syringe Program Survey; see [Methodology](#) for detail.



## Injection drug use

Receptive syringe sharing was determined in the ANSPS by 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)?’. The proportion of Aboriginal and Torres Strait Islander peoples participating in the survey who reported receptive syringe sharing increased from 22% in 2012 to 29% in 2021. This proportion was higher among Aboriginal and Torres Strait Islander participants than among non-Indigenous participants in each of the years 2012–2021 (Figure 23).

**Figure 23** Prevalence of receptive syringe sharing<sup>a</sup> by needle and syringe program participants by Aboriginal and Torres Strait Islander status, 2012–2021



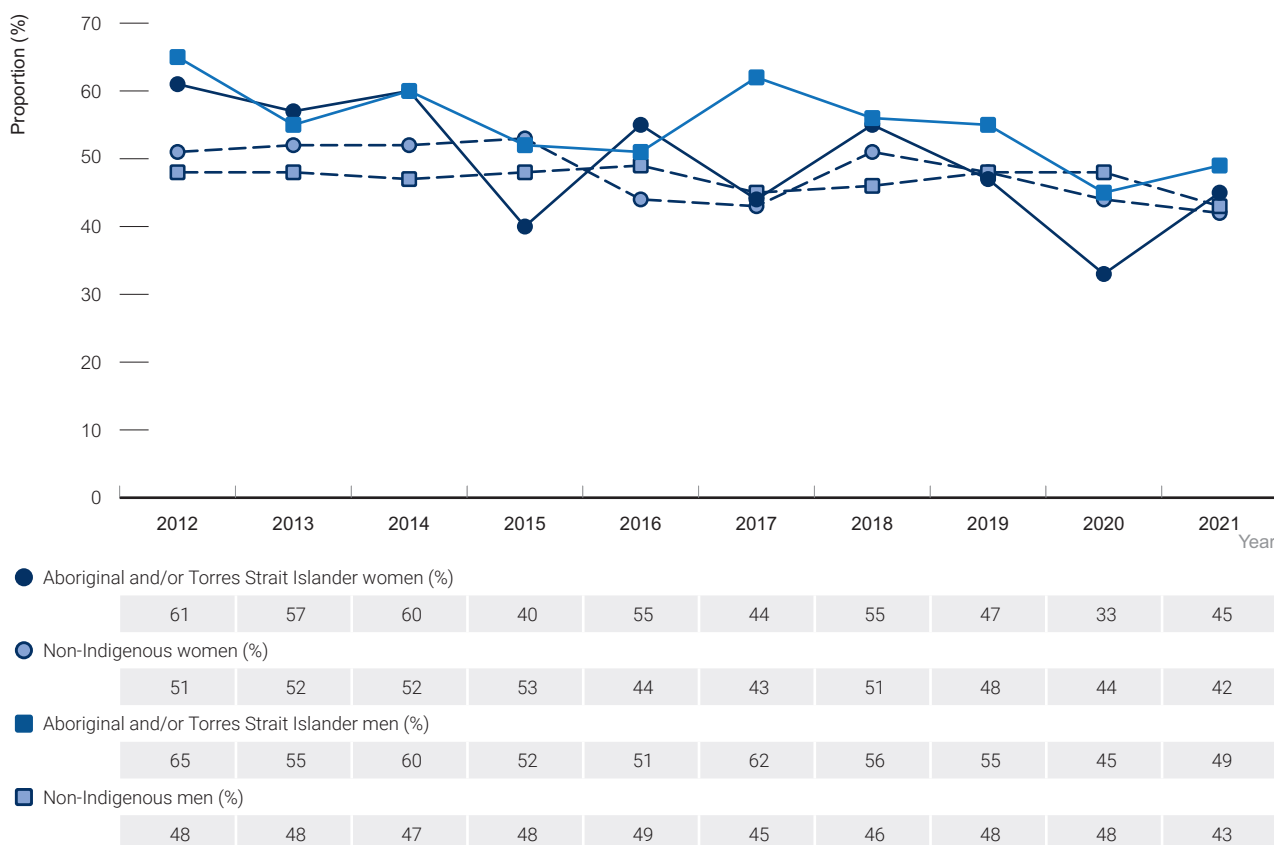
<sup>a</sup> Denominator includes only those who injected in the last month.

Source: Australian Needle Syringe Program Survey; see [Methodology](#) for detail.

## Testing

Of Aboriginal and Torres Strait Islander women who were hepatitis C antibody negative participating in the ANSPS, the proportion who reported a hepatitis C antibody test in the past 12 months declined over the period 2012 to 2021 from 61% to 45% (Figure 24). The proportion of participating Aboriginal and Torres Strait Islander men who were hepatitis C antibody negative and who reported a hepatitis C antibody test in the past 12 months also declined between 2012 and 2021 from 65% to 49%. A similar trend was seen among non-Indigenous women who were hepatitis C antibody negative, of whom 42% reported a hepatitis C antibody test in 2021. In the same period, among hepatitis C antibody negative non-Indigenous men, the proportion of ANSPS participants who reported a hepatitis C antibody test in the past 12 months fluctuated and was 43% in 2021 (Figure 24).

**Figure 24** Proportion of people who inject drugs seen at needle and syringe programs who were hepatitis C antibody negative and reported a hepatitis C antibody test in the past 12 months by Aboriginal and Torres Strait Islander status, 2012–2021



Source: Australian Needle Syringe Program Survey; see [Methodology](#) for detail

## Treatment

In 2021, among Aboriginal and Torres Strait Islander participants in the ANSPS, 56% reported a lifetime history of hepatitis C treatment, an increase from 9% in 2012 (Figure 25). In 2021, Aboriginal and Torres Strait Islander participants had lower lifetime uptake of treatment than non-Indigenous participants (56% vs 65%). In 2021, Aboriginal and Torres Strait Islander participants had lower uptake of treatment in the last 12 months than non-Indigenous participants (23% vs 31%). Increases in treatment uptake after 2015 reflect PBS-subsidised interferon-free direct-acting antiviral regimens becoming available in Australia in March 2016.

**Figure 25** Hepatitis C antiviral therapy ever for hepatitis C antibody-positive needle syringe program participants by Aboriginal and Torres Strait Islander status, 2012–2021



Source: Australian Needle Syringe Program Survey; see [Methodology](#) for detail.

## 5 Hepatitis B

Please see p. 7 for summary.

### Hepatitis B notifications

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

There was a total of 4732 hepatitis B notifications in Australia in 2021. Of these 156 (3%) were among Aboriginal and Torres Strait Islander peoples (Table 5), 2526 (53%) were among non-Indigenous people, and 2050 (43%) were among people for whom Aboriginal and Torres Strait Islander status was not reported <sup>(1)</sup>.

**Table 5 Hepatitis B notifications in Aboriginal and Torres Strait peoples, by characteristic, 2017–2021**

	2017	2018	2019	2020	2021
<b>Characteristic</b>					
<b>Total cases</b>	169	162	147	159	156
<b>Gender<sup>a</sup></b>					
Male	111	111	89	93	95
Female	58	51	58	66	61
<b>Median age in years</b>	40	40	39	41	46.5
<b>Newly Acquired</b>	10	9	24	24	5
<b>State/Territory<sup>b</sup></b>					
Australian Capital Territory	0	4	0	2	0
New South Wales	29	48	51	53	48
Northern Territory	57	73	36	66	22
Queensland	49	46	53	87	73
South Australia	23	25	28	14	11
Tasmania	0	2	0	0	0
Victoria	13	8	7	0	11
Western Australia	47	26	24	27	25

a Excludes 'Not reported'; The National Notifiable Diseases Surveillance System includes the variable 'Sex' to indicate Sex/Gender. For reporting purposes, 'Gender' is used in place of 'Sex'.

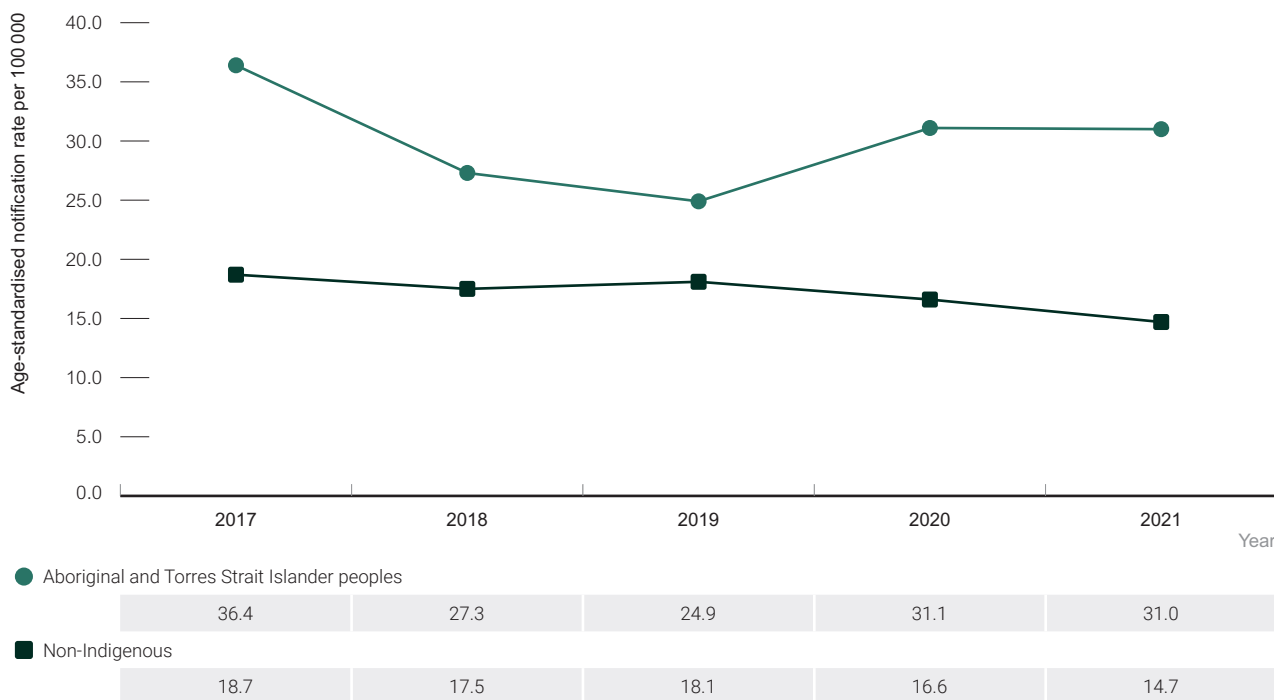
b Numbers of notifications in some jurisdictions may be strongly influenced by completeness of Aboriginal and Torres Strait Islander status.

Source: National Notifiable Diseases Surveillance System.

In the five-year period 2017–2021, Aboriginal and Torres Strait Islander status was recorded at least 50% of notifications per year in the Australian Capital Territory, the Northern Territory, Queensland, South Australia, Tasmania, and Western Australia. Incomplete reporting of Aboriginal and Torres Strait Islander status can result in a misrepresentation of the true extent of the notifications in Aboriginal and Torres Strait Islander peoples and may not reflect national trends.

The hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples fluctuated between 2017 and 2021 and was 31.0 per 100 000 in 2021. In comparison, the hepatitis B notification rate among non-Indigenous people declined by 22% between 2017 and 2021 from 18.7 to 14.7 per 100 000 (Figure 26). In 2021, the age-standardised notification rate of hepatitis B for Aboriginal and Torres Strait Islander peoples was more than twice as high as compared to non-Indigenous people (Figure 26).

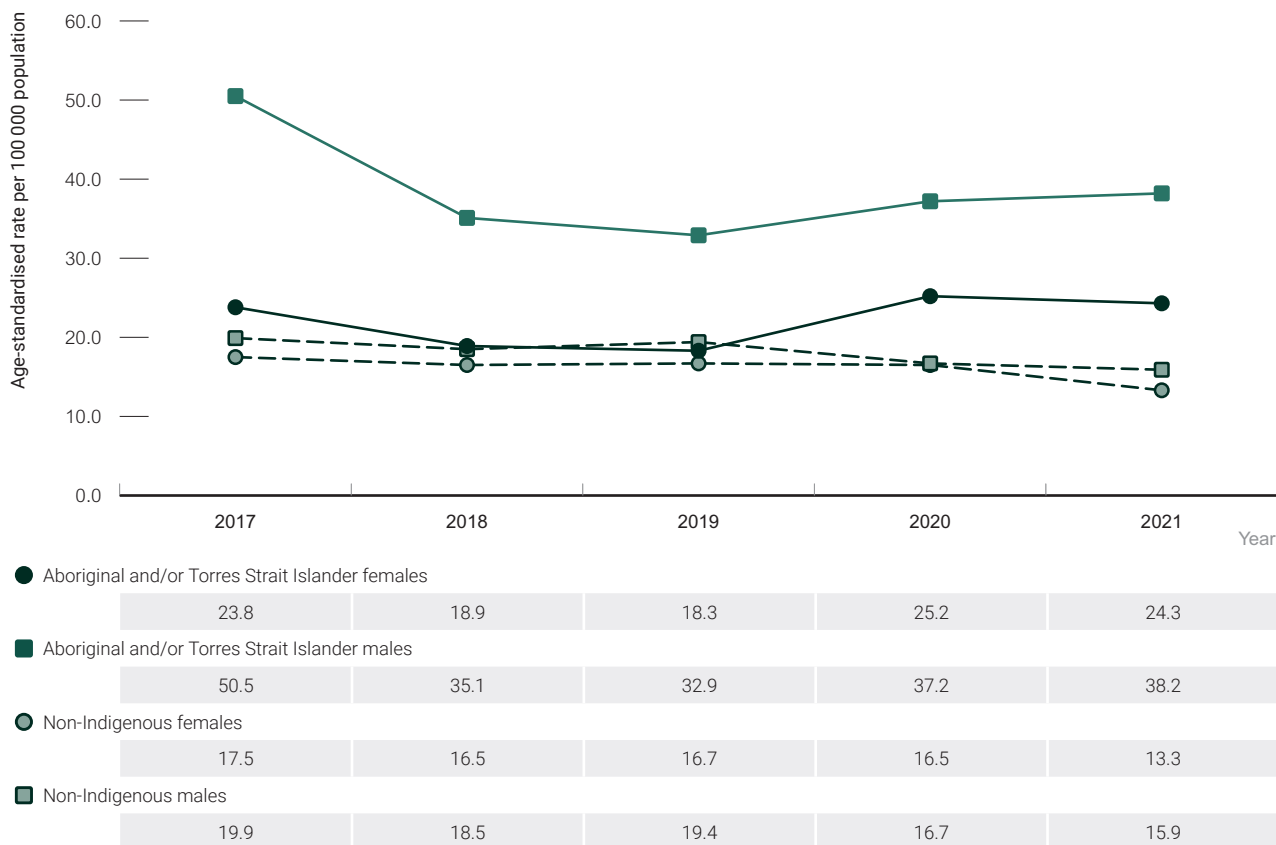
**Figure 26 Hepatitis B notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, 2017–2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

For the years 2017 to 2021, hepatitis B infection notification rates have been consistently higher in Aboriginal and Torres Strait Islander males than in Aboriginal and Torres Strait Islander females. These rates have fluctuated, both in Aboriginal and Torres Strait Islander males (38.2 per 100 000 in 2021) and females (24.3 per 100 000 in 2021). In the same period, hepatitis B notification rates declined among non-Indigenous females from 17.5 to 13.3 per 100 000 (by 24%) and among males from 19.9 to 15.9 per 100 000 (by 20%) (Figure 27).

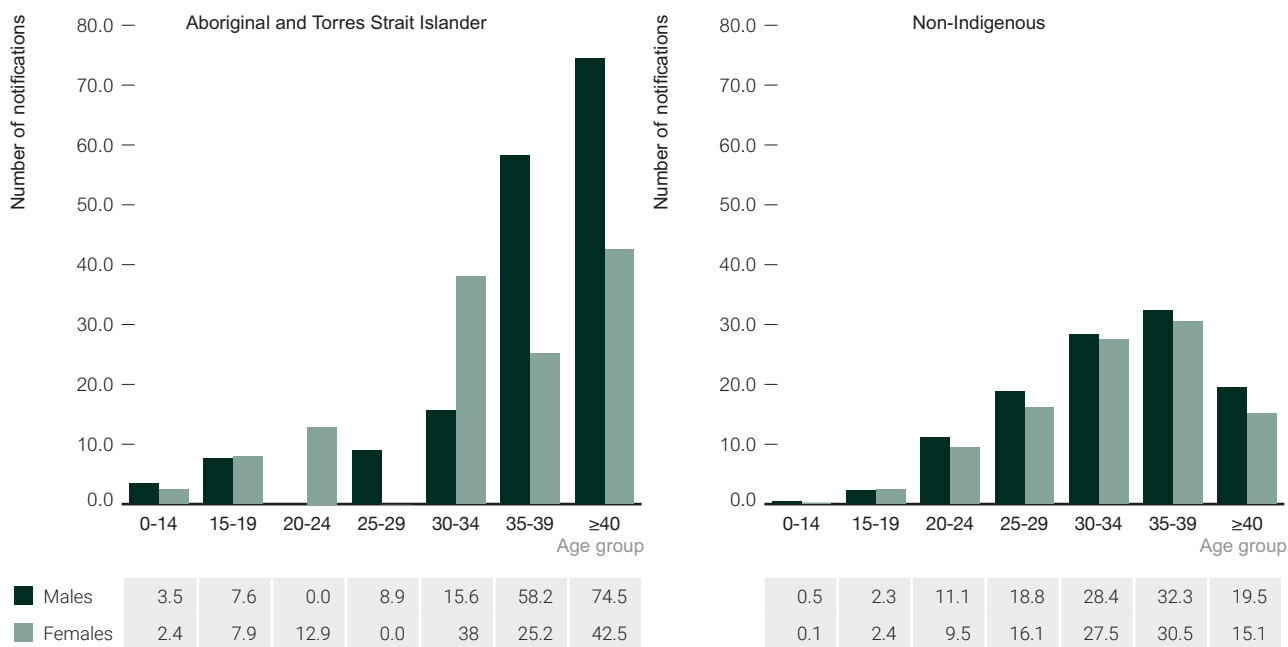
**Figure 27 Hepatitis B notification rates per 100 000 by Aboriginal and Torres Strait Islander status and gender, 2017–2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

In 2021, hepatitis B notification rates among Aboriginal and Torres Strait Islander peoples were higher among men aged 25 years and over, with higher rates among women seen in those aged 30 years and older (Figure 28). Small numbers of notifications among Aboriginal and Torres Strait Islander peoples mean that comparisons by age-group should be conducted with caution.

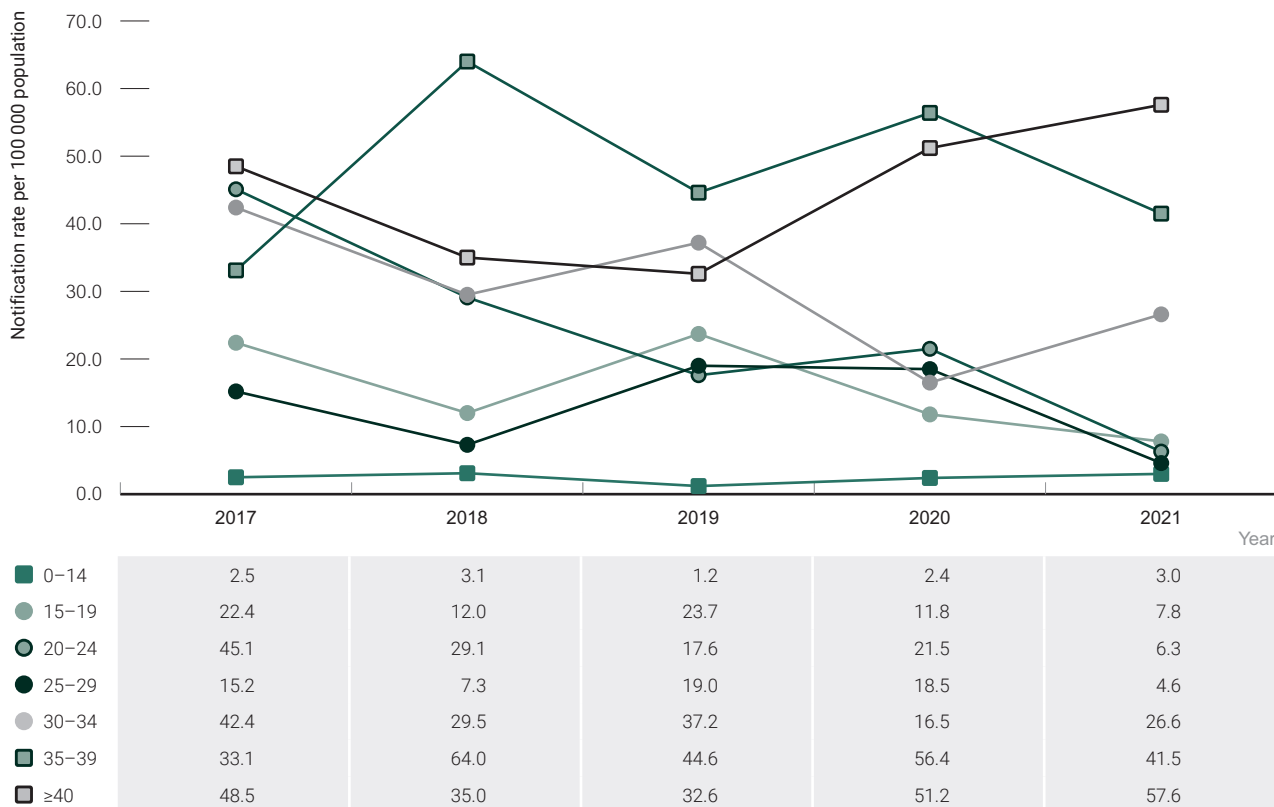
**Figure 28 Hepatitis B notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, age group, and gender, 2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

By age-group, the highest rates in 2021 were among those aged 40 years and over (57.6 notifications per 100 000 for those aged 35 to 39 years (41.5 per 100 000), likely reflecting the impact of childhood and adolescent vaccination programs on younger groups.

**Figure 29** Hepatitis B notification rate per 100 000 population among Aboriginal and Torres Strait Islander peoples by age group, 2017–2021

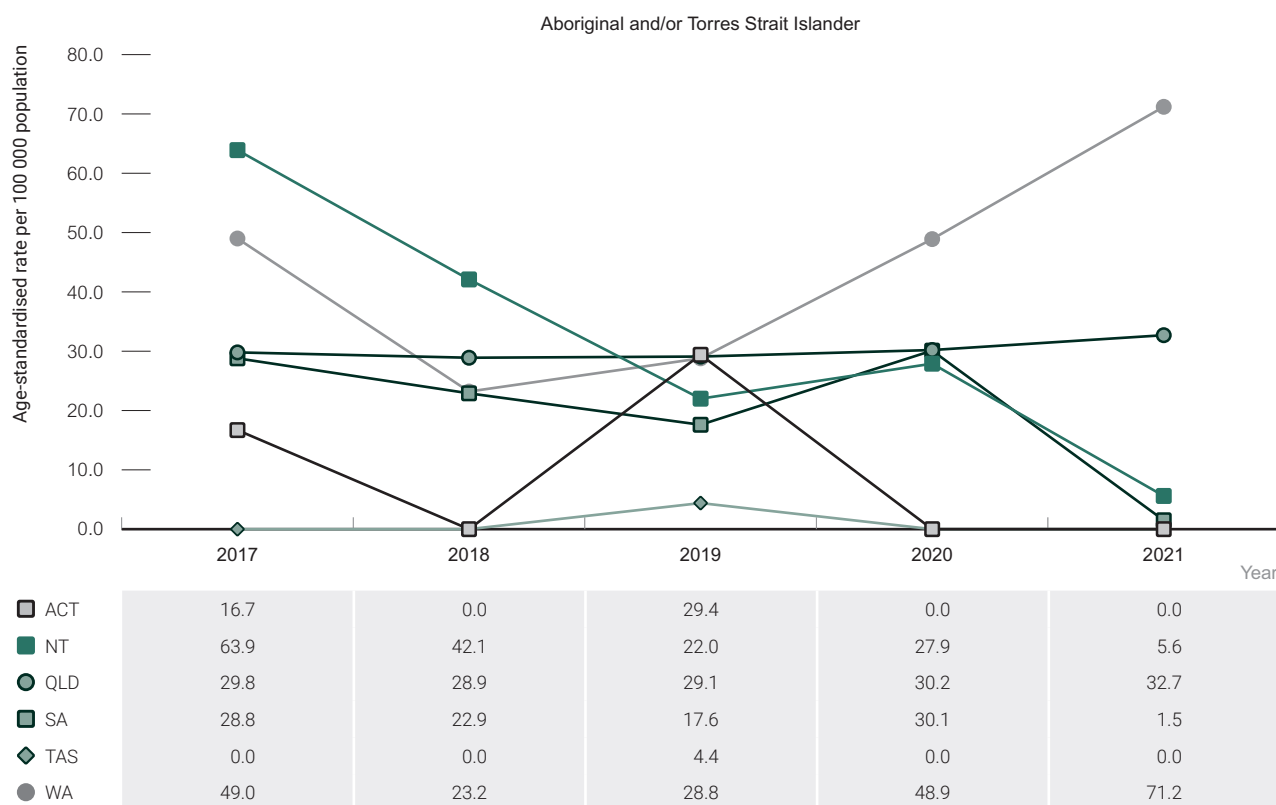


Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

In 2021, hepatitis B notification rates among Aboriginal and Torres Strait Islander peoples were highest in Western Australia (71.2 per 100 000), followed by Queensland (32.7 per 100 000). Interpretation of trends over time by state and territory are difficult due to an overall small number of notifications (Figure 30).



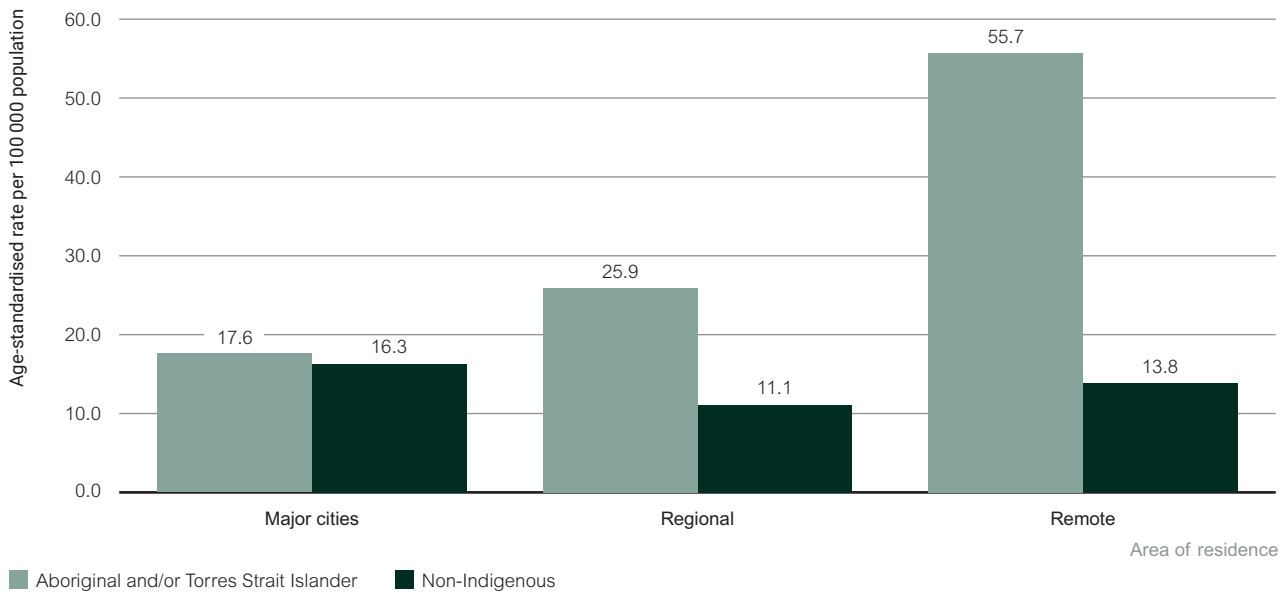
**Figure 30** Hepatitis B notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and state/territory, 2017–2021



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

In 2021, the hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples was highest among people living in remote areas (55.7 per 100 000), followed by regional areas (25.9 per 100 000), then major cities (17.6 per 100 000). The hepatitis B notification rate in Aboriginal and Torres Strait Islander peoples was higher than among non-Indigenous people in all areas of residence (Figure 31).

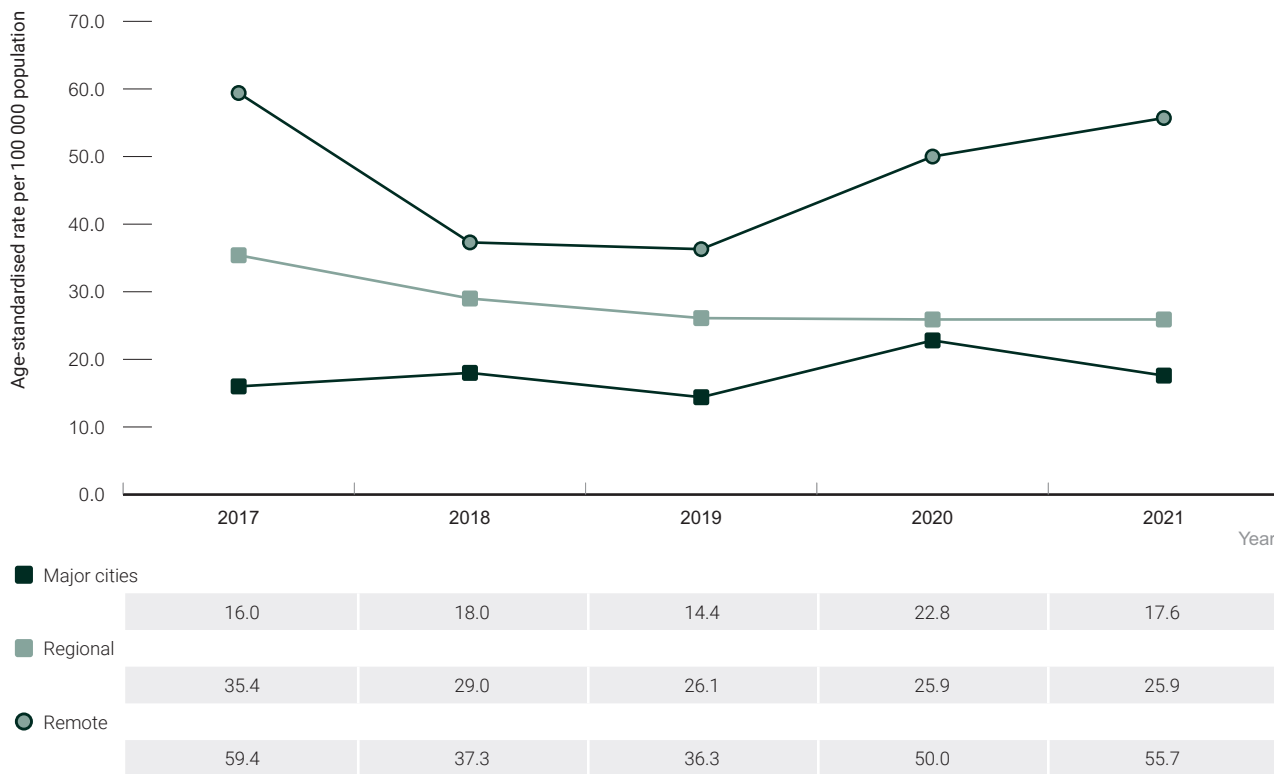
**Figure 31** Hepatitis B notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and area of residence, 2021



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

Over the five-year reporting period, hepatitis B notification rates among Aboriginal and Torres Strait Islander peoples fluctuated in remote areas and major cities and in 2021, were 55.7 and 17.6 per 100 000, respectively. In the same period the hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples declined by 27% in regional areas from 35.4 per 100 000 in 2017 to 25.9 per 100 000 in 2021 (Figure 32).

**Figure 32** Hepatitis B notification rate per 100 000 population among Aboriginal and Torres Strait Islander peoples, by area of residence, 2017–2021



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, and Western Australia).

## Newly acquired hepatitis B infection

Newly acquired hepatitis B infection is defined as hepatitis B infection in a person previously known not to have the infection within the last two years. Determination of a case as ‘newly acquired’ is heavily reliant on public health follow-up, with the method and intensity of follow-up varying by jurisdiction and over time. For each of the five years 2017–2021, Aboriginal and Torres Strait Islander status was complete for at least 50% of newly acquired hepatitis B notifications in every state and territory. Of the 80 notifications of newly acquired hepatitis B infection in 2021, 5 (6%) were in Aboriginal and Torres Strait Islander peoples and 66 (83%) in non-Indigenous people, and 9 (11%) notification were missing Aboriginal and Torres Strait Islander status.

## Hepatitis B prevalence

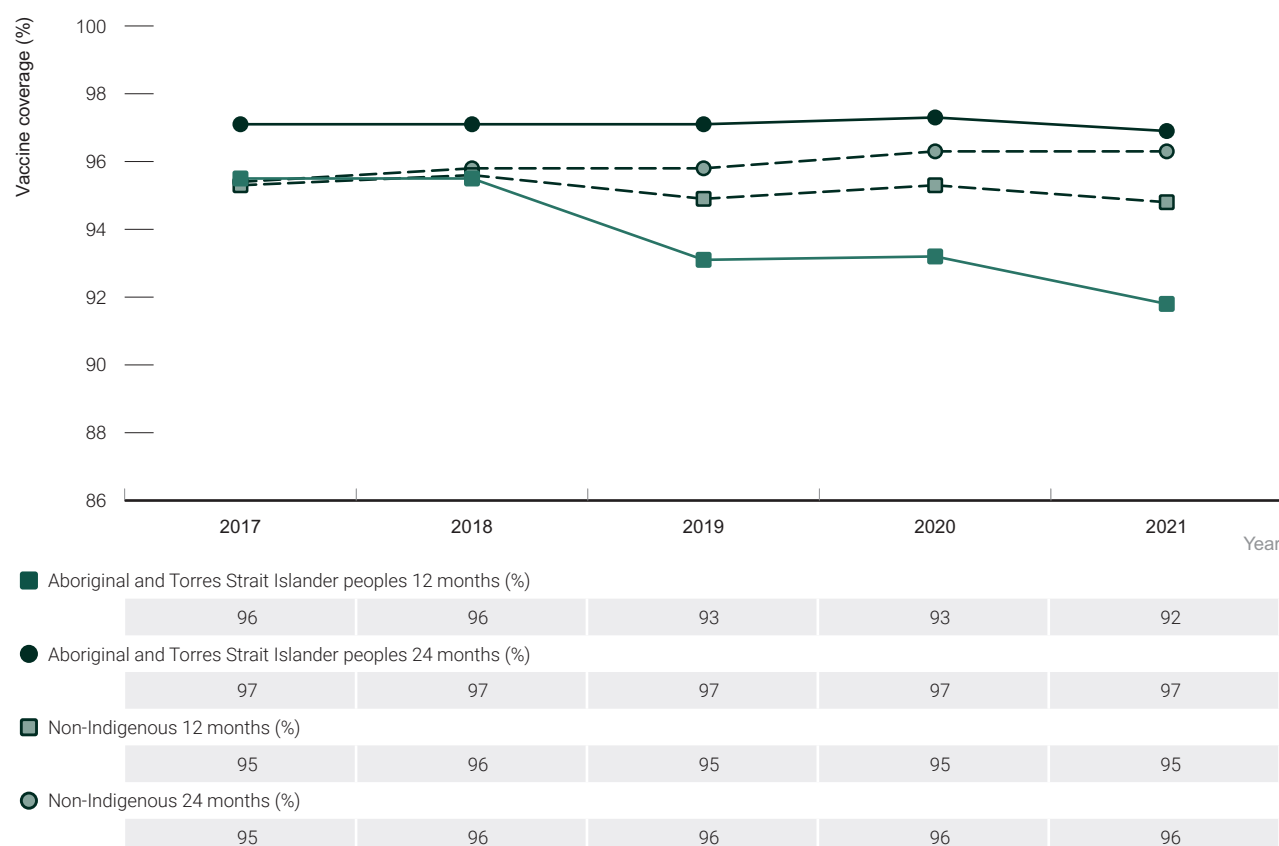
Data relating to hepatitis B was not available at the time of reporting. Future reporting will include modelled hepatitis B prevalence estimates.

## Vaccination

In the Northern Territory in 1985, hepatitis B screening was introduced for all pregnant women as well as vaccination for infants born to people living with chronic hepatitis B infection. In 1990, universal infant vaccination was implemented in the Northern Territory and, in 1998, a catch-up program targeting children aged 6–16 years was introduced. A universal school-based hepatitis B vaccination catch-up program for adolescents aged 12–15 years commenced in 1998 and in other jurisdictions of Australia, hepatitis B vaccination of all infants commenced in 2000 <sup>(5)</sup>.

Over the period 2017–2021, hepatitis B vaccination coverage rates for children were high. For Aboriginal and Torres Strait Islander children, coverage was marginally lower than for non-Indigenous children at 12 months of age (at 92% to 95%). At 24 months of age, vaccination coverage was similar between Aboriginal and Torres Strait Islander children and non-Indigenous children at 97% and 96%, respectively (Figure 33).

**Figure 33** Hepatitis B vaccination coverage estimates at 12 and 24 months by Aboriginal and/ or Torres Strait Islander status, 2017–2021



Source: Australian Immunisation Register;; see [Methodology](#) for detail.

## 6 Sexually transmissible infections

Please see p. 8 for summary.

### Chlamydia

Chlamydia is a sexually transmissible infection caused by a specific strain of bacteria known as *Chlamydia trachomatis*. Chlamydia was the most frequently notified sexually transmissible infection in Australia in 2021, with a total of 86 916 notifications, of which 7241 (8%) were among Aboriginal and Torres Strait Islander peoples, 37 992 (44%) were among non-Indigenous people, and 41 683 (48%) were for people for whom Aboriginal and Torres Strait Islander status was not reported <sup>(1)</sup>.

**Table 6 Chlamydia notifications in Aboriginal and Torres Strait peoples, by characteristic, 2017–2021**

	2017	2018	2019	2020	2021
<b>Characteristic</b>					
<b>Total cases</b>	7849	8269	8358	7674	7241
<b>Gender<sup>a</sup></b>					
Male	2794	2968	2894	2682	2556
Female	5054	5301	5464	4992	4682
<b>Median age in years</b>	21	22	22	22	22
<b>State/Territory<sup>b</sup></b>					
Australian Capital Territory	6	12	17	30	41
New South Wales	926	921	1009	1033	997
Northern Territory	1554	1694	1690	1557	1563
Queensland	3078	2994	2832	3011	3149
South Australia	333	372	441	368	331
Tasmania	39	49	28	2	7
Victoria	146	8	2	1	2
Western Australia	1619	1611	1479	1411	1579

a Excludes 'Not reported'; The National Notifiable Diseases Surveillance System includes the variable 'Sex' to indicate Sex/Gender. For reporting purposes, 'Gender' is used in place of 'Sex'.

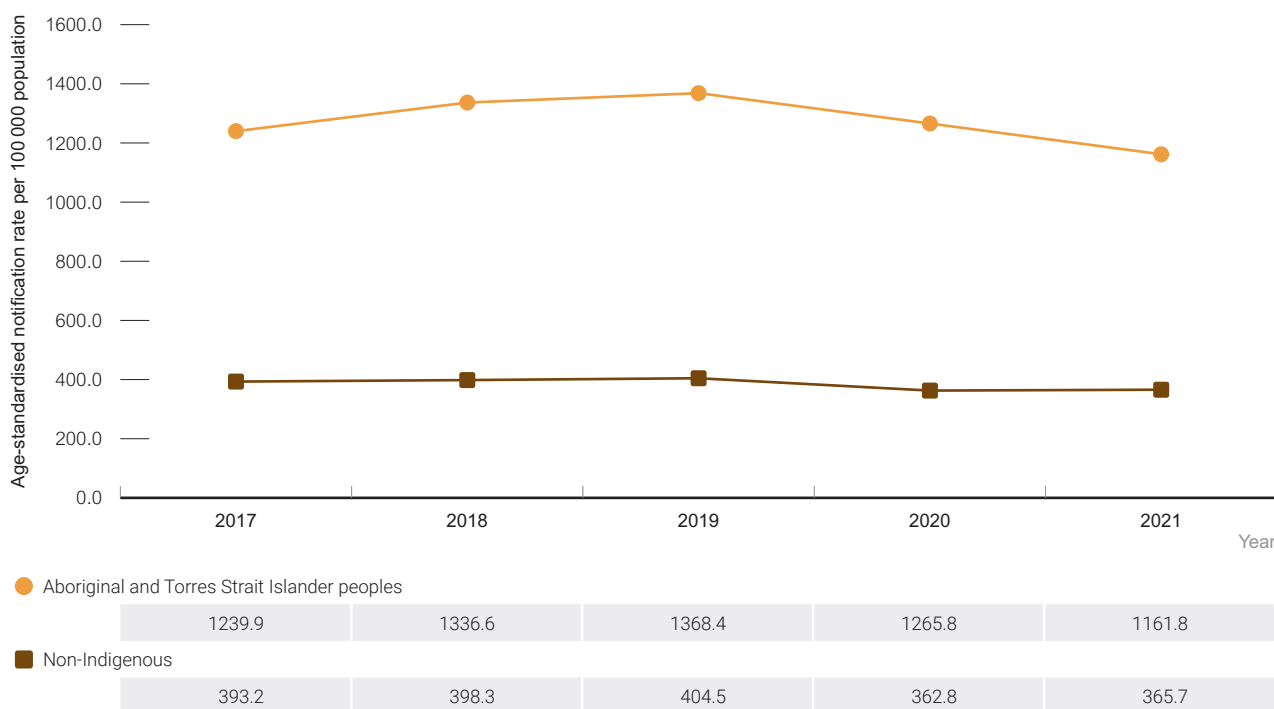
b Numbers of notifications in some jurisdictions may be strongly influenced by completeness of Aboriginal and Torres Strait Islander status.

Source: National Notifiable Diseases Surveillance System.

Notification rates are based on data from four jurisdictions (Australian Capital Territory, Northern Territory, South Australia, and Western Australia), where Aboriginal and Torres Strait Islander status was at least 50% complete for chlamydia notifications for each of the five years (2017–2021). Less than a third (28%) of Aboriginal and Torres Strait Islander peoples reside in these jurisdictions, so it is important to note that the notification rates may not be nationally representative.

The chlamydia notification rate for Aboriginal and Torres Strait Islander peoples in 2021 of 1161.8 per 100 000 population was more than three times that of non-Indigenous people at 365.7 per 100 000 population (Figure 34).

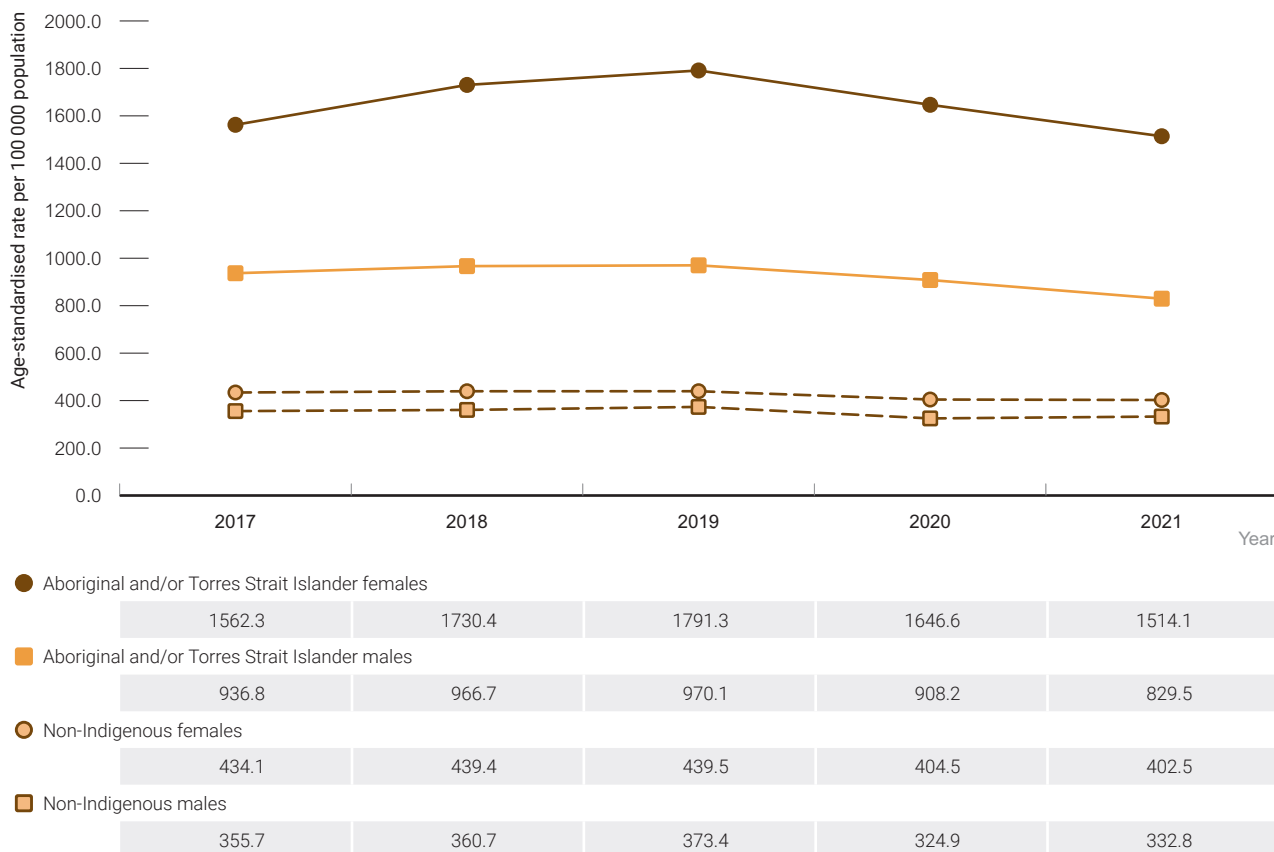
**Figure 34 Chlamydia notification rate per 100 00 population by Aboriginal and Torres Strait Islander status, 2017–2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, South Australia, and Western Australia).

Between 2017 and 2021, chlamydia notification rates among Aboriginal and Torres Strait Islander males and females fluctuated and in 2021 were 829.5 and 1514.1 per 100 000, respectively. In 2021, the chlamydia notification rate was more than three times as high in Aboriginal and Torres Strait Islander females as in non-Indigenous females (1514.1 per 100 000 vs 402.5 per 100 000) and more than twice as high in Aboriginal and Torres Strait Islander males as in non-Indigenous males (829.5 per 100 000 vs 332.8 per 100 000) (Figure 35).

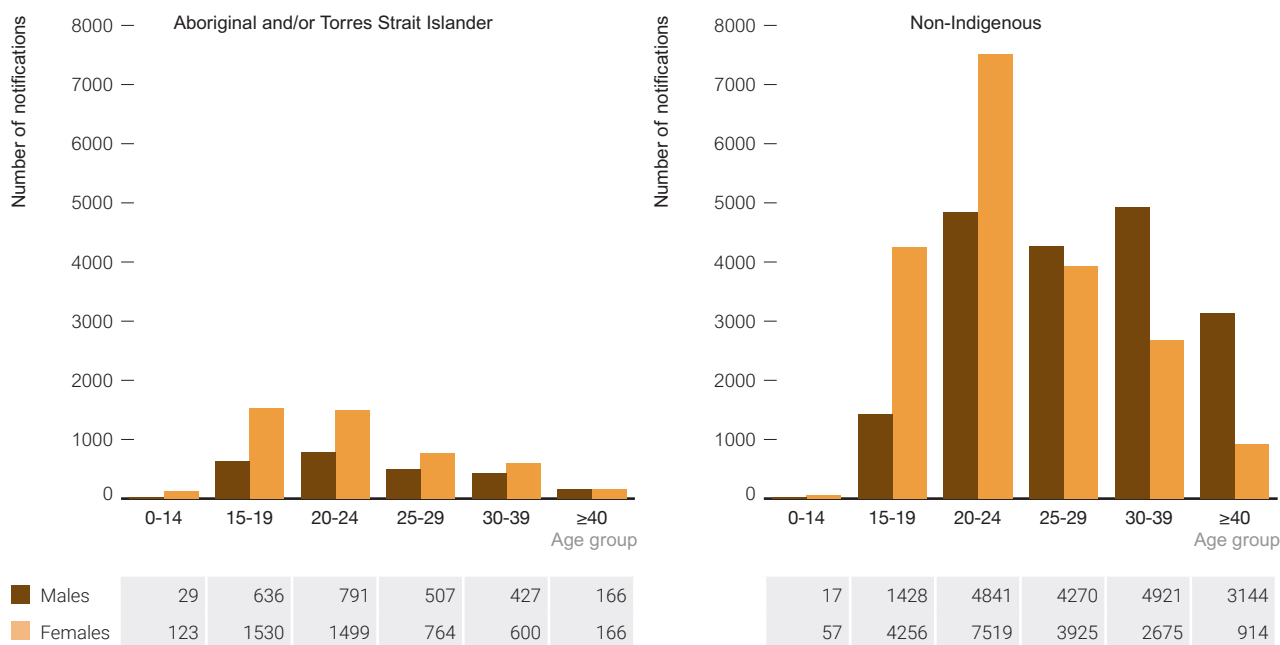
**Figure 35 Chlamydia notification rates per 100 000 population by Aboriginal and Torres Strait Islander status and gender, 2017–2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, South Australia, and Western Australia).

Chlamydia is notified predominantly among young people. In 2021, 39% of chlamydia notifications were in the 15–29 age group in Aboriginal and Torres Strait Islander peoples, with 26% among non-Indigenous people. In 2021, of the chlamydia notifications in Aboriginal and Torres Strait Islander peoples, 2556 were among males and 4682 among females, providing a male-to-female ratio of 0.5:1 compared to 1:1 among non-Indigenous people (Figure 36). This may reflect differences in health seeking behaviour and suggests an under-identification of cases of chlamydia among men compared to women

**Figure 36** Number of chlamydia notifications by Aboriginal and Torres Strait Islander status, gender, and age group, 2021

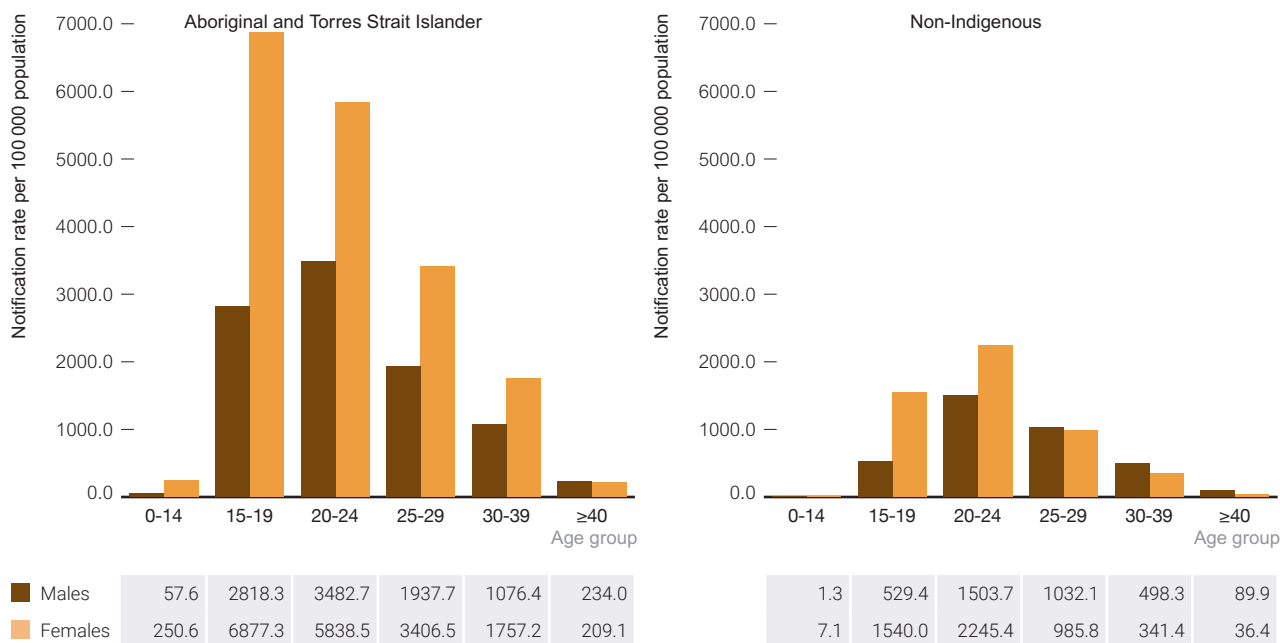


Source: National Notifiable Diseases Surveillance System; numbers include data from every state and territory, regardless of Aboriginal and Torres Strait Islander status completeness.



By age group and gender, the chlamydia notification rate for males aged 15 to 19 years was more than five times as high among Aboriginal and Torres Strait Islander males than among non-Indigenous males (2818.3 per 100 000 vs 529.4 per 100 000), and more than twice as high among males aged 20 to 24 years (3482.7 per 100 000 vs 1503.7 per 100 000) (Figure 37). The chlamydia notification rate for Aboriginal and Torres Strait Islander females aged 15 to 19 was more than four times as high among females than among non-Indigenous females in the same age group (6877.3 vs. 1540.0 per 100 000), and more than twice as high among those aged 20 to 24 years (5838.5 vs. 2245.4 per 100 000) (Figure 44). In 2021, notification rates were highest in Aboriginal and Torres Strait Islander females, aged 15 to 19 years (6877.3 per 100 000 population) and aged 20 to 24 years (5838.5 per 100 000), which may reflect differences in health-seeking behaviour.

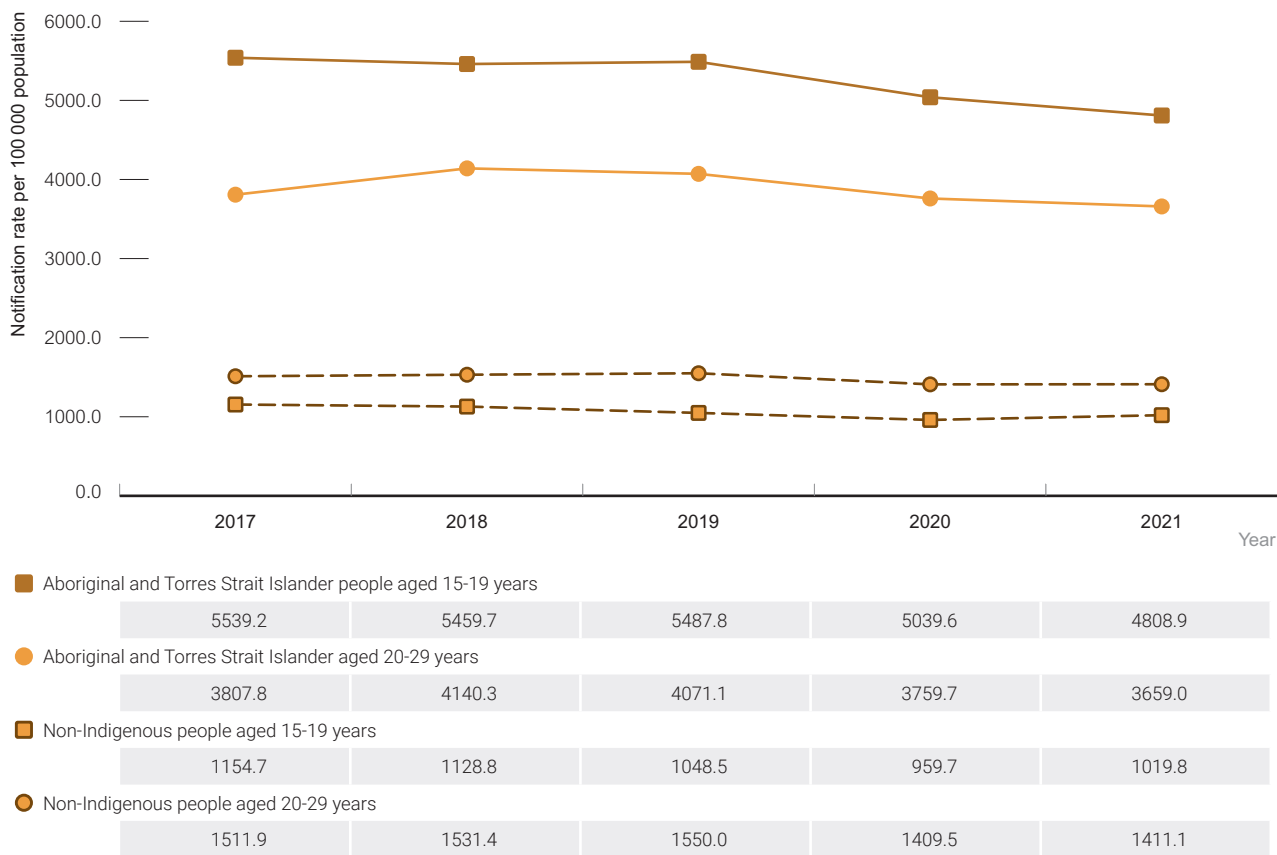
**Figure 37 Chlamydia notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, gender, and age group, 2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, South Australia, and Western Australia).

The chlamydia notification rate among Aboriginal and Torres Strait Islander peoples aged 15 to 19 years declined by 13% from 5539.2 per 100 000 in 2017 to 4808.9 per 100 000 in 2021. Among Aboriginal and Torres Strait Islander peoples aged 20 to 29 years, notification rates remained steady and was 3659.0 per 100 000 in 2021 (Figure 38). By comparison, the chlamydia notification rate in non-Indigenous people aged 15 to 19 years declined by 20% from 1154.7 per 100 000 in 2017 to 1019.8 per 100 000 in 2021. The chlamydia notification rate among non-Indigenous people aged 20 to 29 years remained steady and was 1411.1 per 100 000 in 2021.

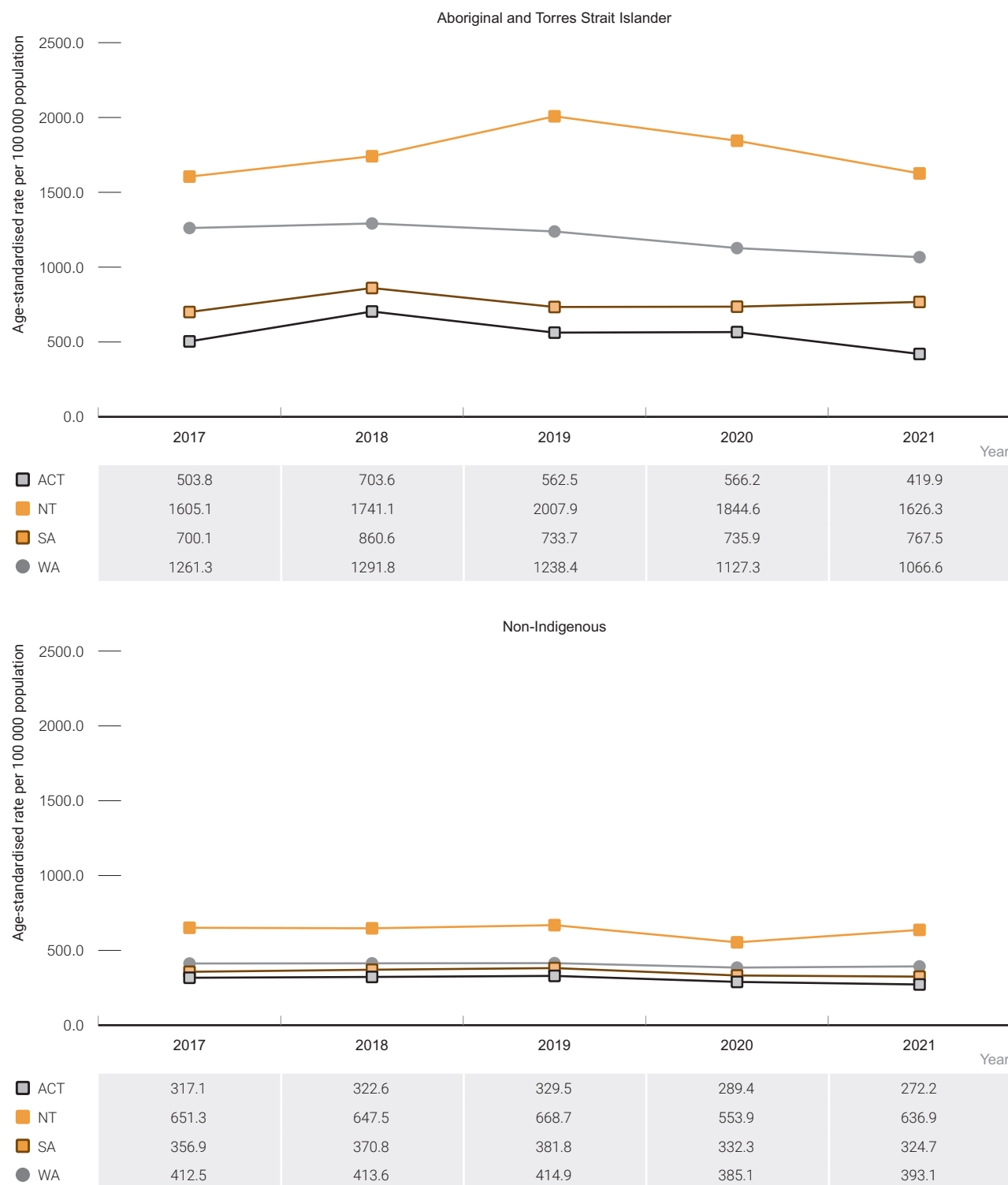
**Figure 38 Chlamydia notification rate per 100 000 population among Aboriginal and Torres Strait Islander peoples by age group, 2017–2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, South Australia, and Western Australia).

In 2021, chlamydia notification rates among Aboriginal and Torres Strait Islander peoples were highest in the Northern Territory (1626.3 per 100 000), followed by Western Australia (1066.6 per 100 000), and South Australia (767.5 per 100 000). In every reported state and territory, chlamydia notification rates among Aboriginal and Torres Strait Islander peoples fluctuated between 2017 and 2021 with declines between 2019 and 2021 likely related to the COVID-19 pandemic. In 2021, notification rates were at least one and half times as high among Aboriginal and Torres Strait Islander peoples compared with non-Indigenous peoples in every reported state and territory (Figure 39).

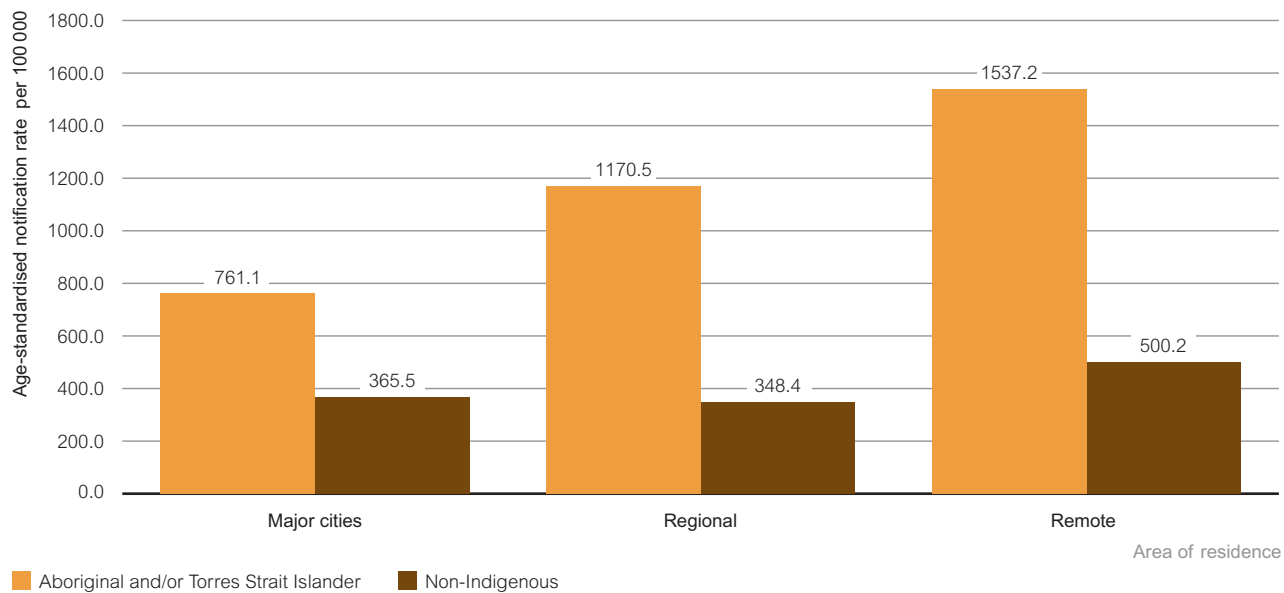
**Figure 39 Chlamydia notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and state/territory, 2017–2021**



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, South Australia, and Western Australia).

In 2021, the chlamydia notification rate in Aboriginal and Torres Strait Islander peoples compared to non-Indigenous people was twice as high in major cities and three times as high in both regional and remote areas (Figure 40).

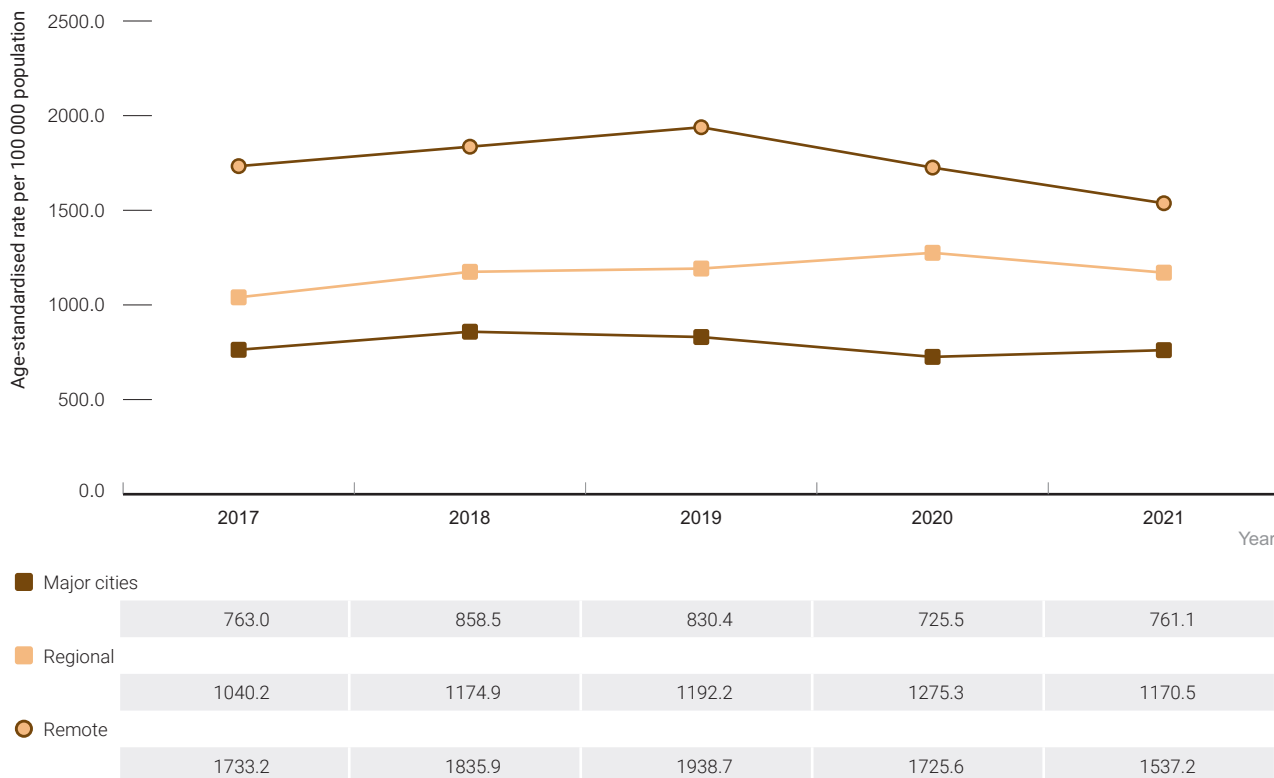
**Figure 40** Chlamydia notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and area of residence, 2021



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, South Australia, and Western Australia).

Between 2017 and 2021, chlamydia notification rates in Aboriginal and Torres Strait Islander peoples living in major cities, regional areas, and remote areas fluctuated and were 761.1 per 100 000, 1170.5 per 100 000, and 1537.2 per 100 000, respectively (Figure 41).

**Figure 41** Chlamydia notification rate in Aboriginal and Torres Strait Islander peoples per 100 000 population by area of residence, 2017–2021



Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Non-Indigenous people was reported for  $\geq 50\%$  of notifications for each year (Australian Capital Territory, Northern Territory, South Australia, and Western Australia).

## Gonorrhoea

Gonorrhoea is a sexually transmissible infection caused by the bacterium *Neisseria gonorrhoea*. There were 26 577 gonorrhoea notifications in Australia in 2021. Of these, 4653 (18%) were among Aboriginal and Torres Strait Islander peoples, 15 251 (57%) were in non-Indigenous people, and 6673 (25%) were in people for whom Aboriginal and Torres Strait Islander status was not reported.

The ratio of male to female notifications in Aboriginal and Torres Strait Islander peoples in 2021 was 0.9:1 compared with 2.8:1 in non-Indigenous people (data not shown). This may indicate greater transmission occurring through heterosexual contact among Aboriginal and Torres Strait Islander peoples than among non-Indigenous people.

**Table 7** Gonorrhoea notifications in Aboriginal and Torres Strait peoples, by characteristic, 2017–2021

	2017	2018	2019	2020	2021
<b>Characteristic</b>					
<b>Total cases<sup>a</sup></b>	4222	4745	4166	4402	4653
<b>Gender<sup>a</sup></b>					
Male	1975	2171	1924	2041	2159
Female	2246	2572	2240	2361	2492
<b>Median age in years</b>	23	24	24	25	25
<b>State/Territory<sup>b</sup></b>					
Australian Capital Territory	11	14	12	14	20
New South Wales	271	293	393	377	340
Northern Territory	1568	1882	1190	1167	1462
Queensland	890	982	1040	1022	1174
South Australia	257	347	419	370	477
Tasmania	4	4	4	21	18
Victoria	67	86	118	78	73
Western Australia	1154	1137	990	1353	1089

a Excludes 'Not reported'; The National Notifiable Diseases Surveillance System includes the variable 'Sex' to indicate Sex/Gender. For reporting purposes, 'Gender' is used in place of 'Sex'.

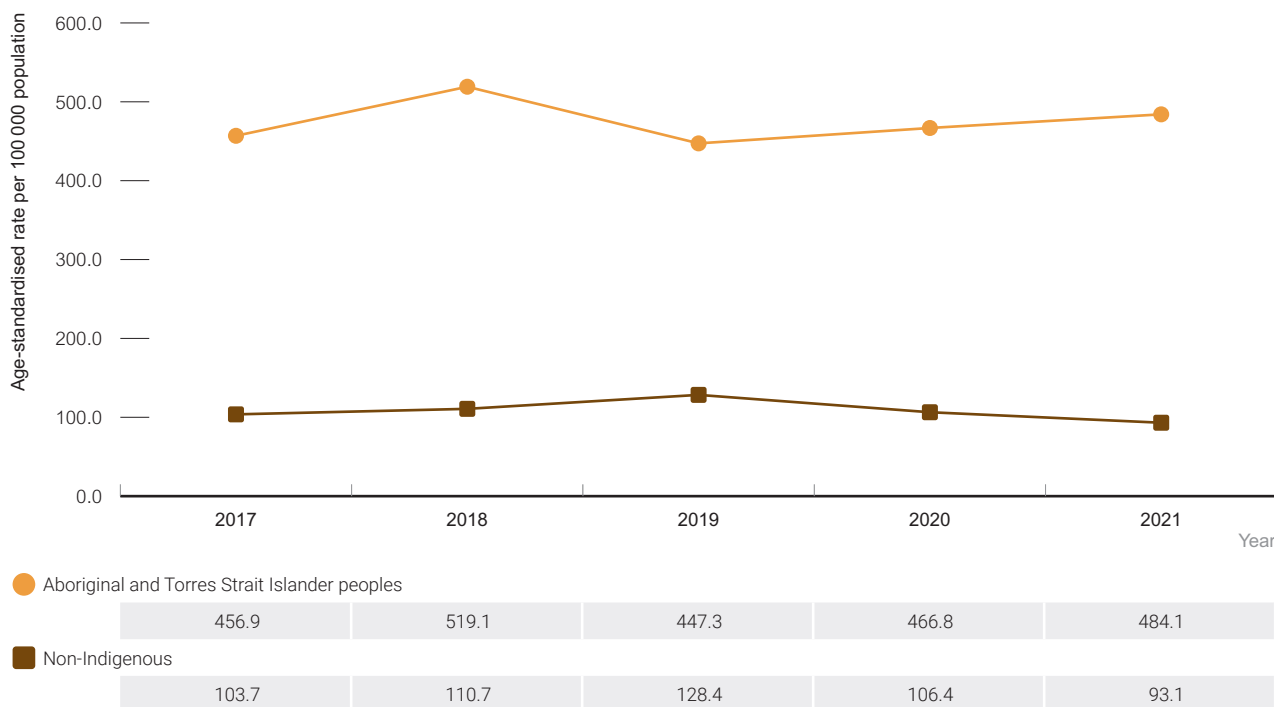
b Numbers of notifications in some jurisdictions may be strongly influenced by completeness of Aboriginal and Torres Strait Islander status.

Source: National Notifiable Diseases Surveillance System.

In the period 2017–2021, Aboriginal and Torres Strait Islander status was at least 50% complete in each year in every state and territory. Therefore, this section includes notification data from all jurisdictions.

The gonorrhoea notification rate for Aboriginal and Torres Strait Islander peoples in 2021 was more than five times that of non-Indigenous people (484.1 and 93.1 per 100 000 population, respectively). Between 2017 and 2021, the gonorrhoea notification rate in Aboriginal and Torres Strait Islander peoples fluctuated between 456.9 and 519.1 per 100 000 (Figure 42).

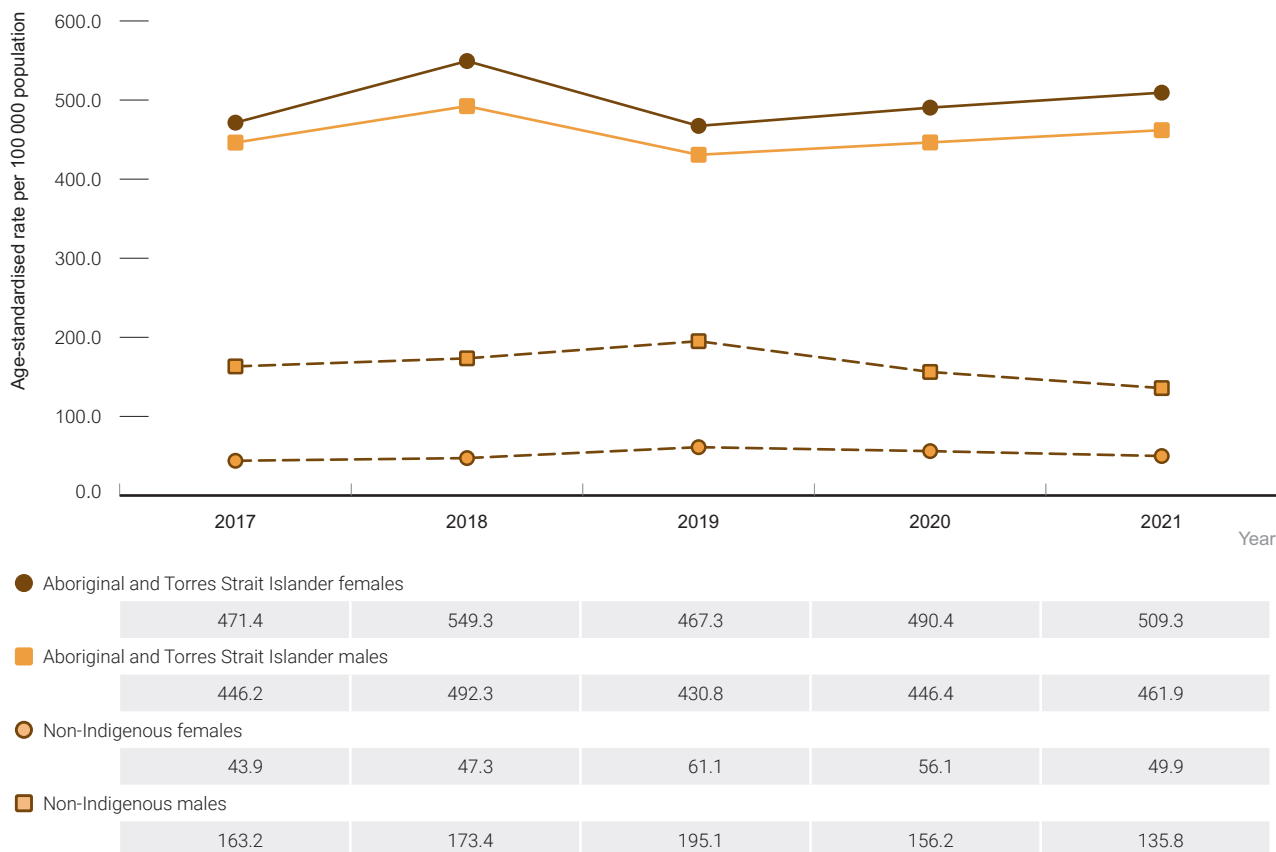
**Figure 42** Gonorrhoea notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, 2017–2021



Source: Australian National Notifiable Diseases Surveillance System. Includes all jurisdictions, as Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year.

The gonorrhoea notification rate for Aboriginal and Torres Strait Islander females in 2021 was more than ten times that of non-Indigenous females (509.3 and 49.9 per 100 000, respectively) (Figure 43). The gonorrhoea notification rate for Aboriginal and Torres Strait Islander males in 2021 was more than three times that of non-Indigenous males (461.9 and 135.8 per 100 000, respectively). The gonorrhoea notification rates among Aboriginal and Torres Strait Islander males and females fluctuated between 2017 and 2021 (Figure 43).

**Figure 43** Gonorrhoea notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and gender, 2017–2021

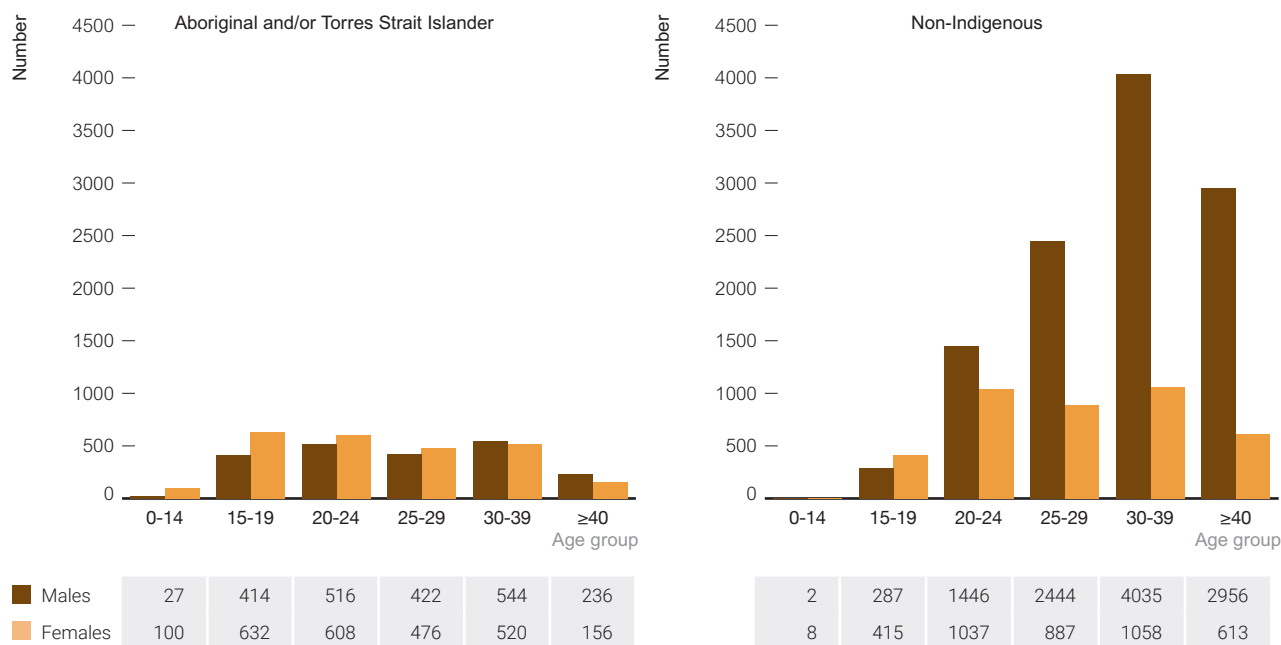


Source: Australian National Notifiable Diseases Surveillance System. Includes all jurisdictions, as Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year.

Differences in age at notification exist between Aboriginal and Torres Strait Islander peoples and non-Indigenous people. In 2021, the greatest proportion of gonorrhoea notifications in the Aboriginal and Torres Strait Islander peoples occurred among those aged 20 to 24 years (24%). By comparison the highest proportion of notifications in non-Indigenous people in 2021 occurred among those aged 30 to 39 years (22%) (Figure 44).



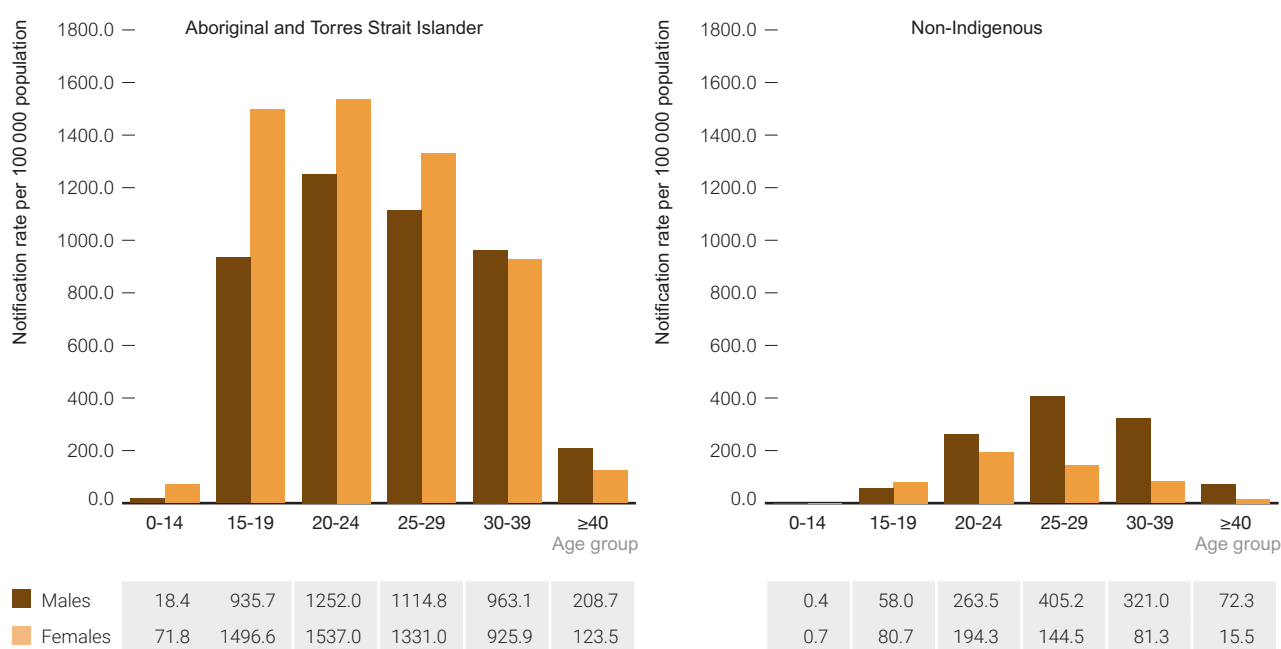
**Figure 44** Number of gonorrhoea notifications by Aboriginal and Torres Strait Islander status, gender, and age group, 2021



Source: National Notifiable Diseases Surveillance System; numbers include data from every state and territory, regardless of Aboriginal and Torres Strait Islander status completeness.

Notification rates in Aboriginal and Torres Strait Islander peoples were significantly higher than in non-Indigenous people across all age groups for both males and females (Figure 45). Notification rates were more than 18 times as high among Aboriginal and Torres Strait Islander females aged 15 to 19 years than among non-Indigenous females in the same age group (1496.6 and 80.7 per 100 000, respectively). In the same age group, the gonorrhoea notification rate was 16 times as high among Aboriginal and Torres Strait Islander males as compared to non-Indigenous males (935.7 and 58.0 per 100 000, respectively).

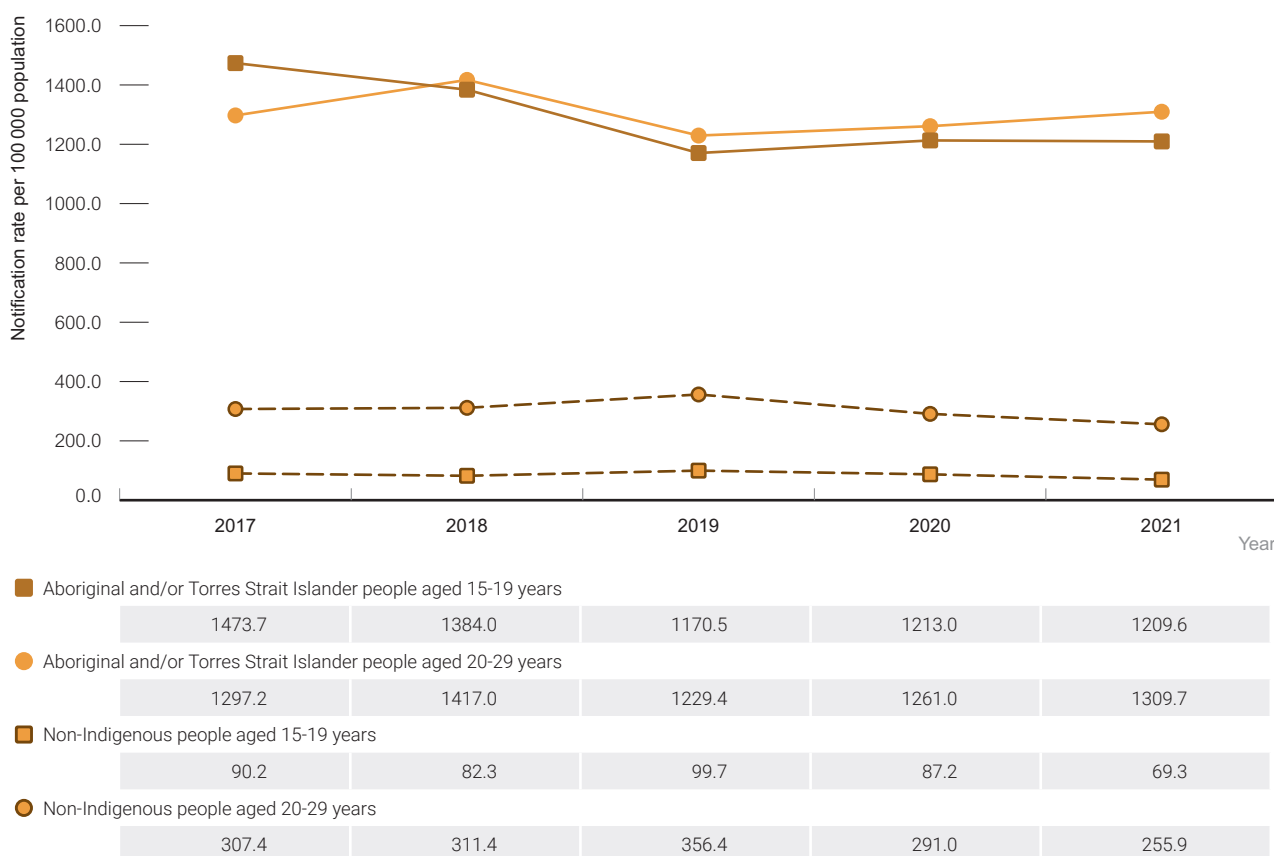
**Figure 45** Gonorrhoea notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, gender, and age group, 2021



Source: Australian National Notifiable Diseases Surveillance System. Includes all jurisdictions, as Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications for each year.

The gonorrhoea notification rate among Aboriginal and Torres Strait Islander peoples aged 15 to 19 years declined by 18% from 1473.7 per 100 000 in 2017 to 1209.6 per 100 000 in 2021. Among Aboriginal and Torres Strait Islander peoples aged 20 to 29 years, the gonorrhoea notification rate fluctuated between 2017 and 2021 and was 1309.7 per 100 000 in 2021 (Figure 46). In 2021, among those aged 15 to 19 years, the gonorrhoea notification rate among Aboriginal and Torres Strait Islander peoples was more than 17 times as high as compared to non-Indigenous people. Also in 2021, among those aged 20 to 29 years, the gonorrhoea notification rate among Aboriginal and Torres Strait Islander peoples was five times as high as compared to non-Indigenous people (Figure 46).

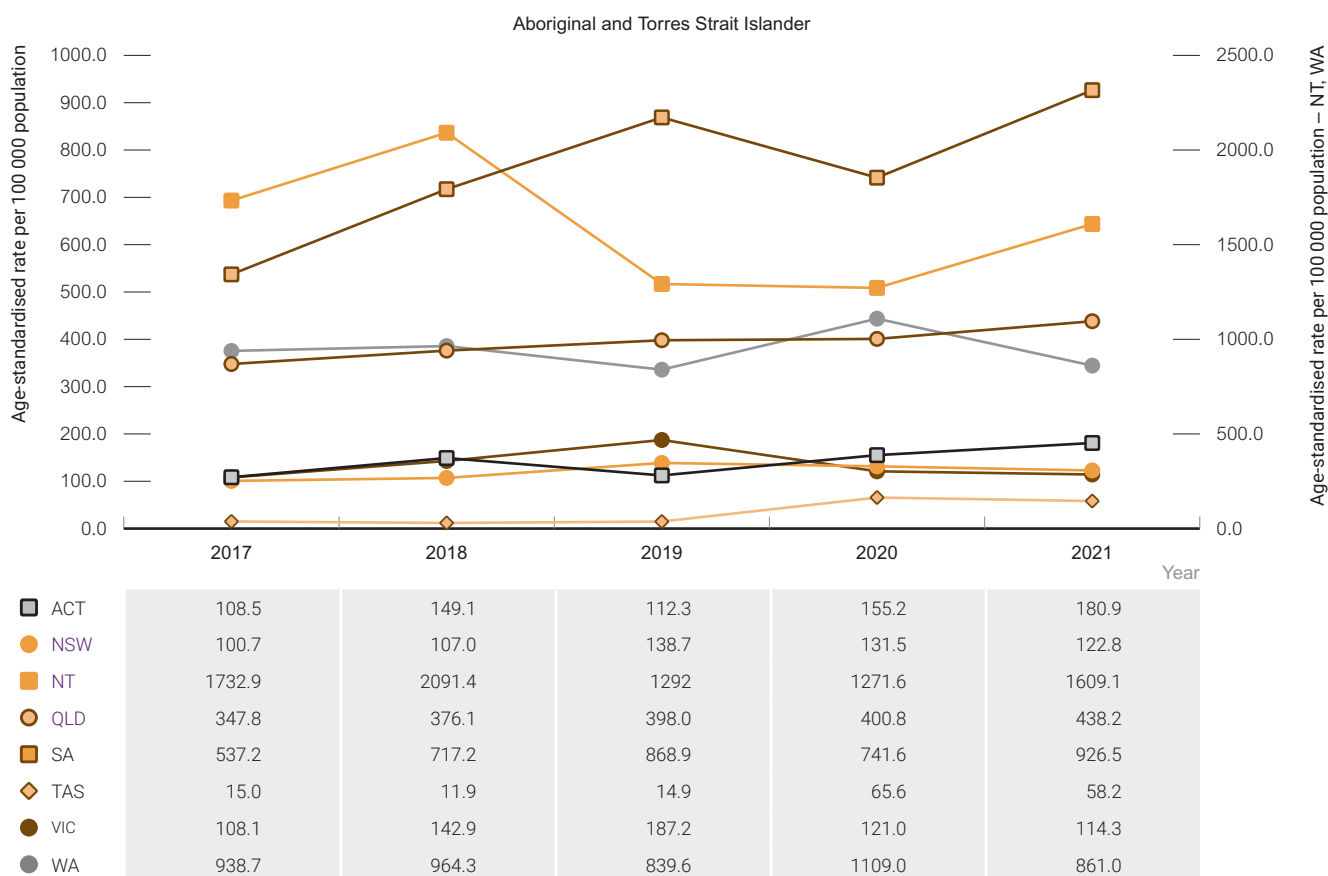
**Figure 46** Gonorrhoea notification rate per 100 000 population by Aboriginal and Torres Strait Islander status by age group, 2017–2021



Source: Australian National Notifiable Diseases Surveillance System. Includes all jurisdictions, as Indigenous status was reported for  $\geq 50\%$  of notifications for each year.

In 2021, gonorrhoea notification rates among Aboriginal and Torres Strait Islander peoples were highest in the Northern Territory (1609.1 per 100 000), followed by South Australia (926.5 per 100 000), and Western Australia (861.0 per 100 000). Despite declines in testing due to the COVID-19 pandemic, gonorrhoea notification rates among Aboriginal and Torres Strait Islander peoples increased in every state and territory between 2017 and 2021 apart from Western Australia where the notification rate fluctuated. In 2021, notification rates were more than twice as high among Aboriginal and Torres Strait Islander peoples compared with non-Indigenous peoples in the Australian Capital Territory, the Northern Territory, Queensland, South Australia, and Western Australia (Figure 47).

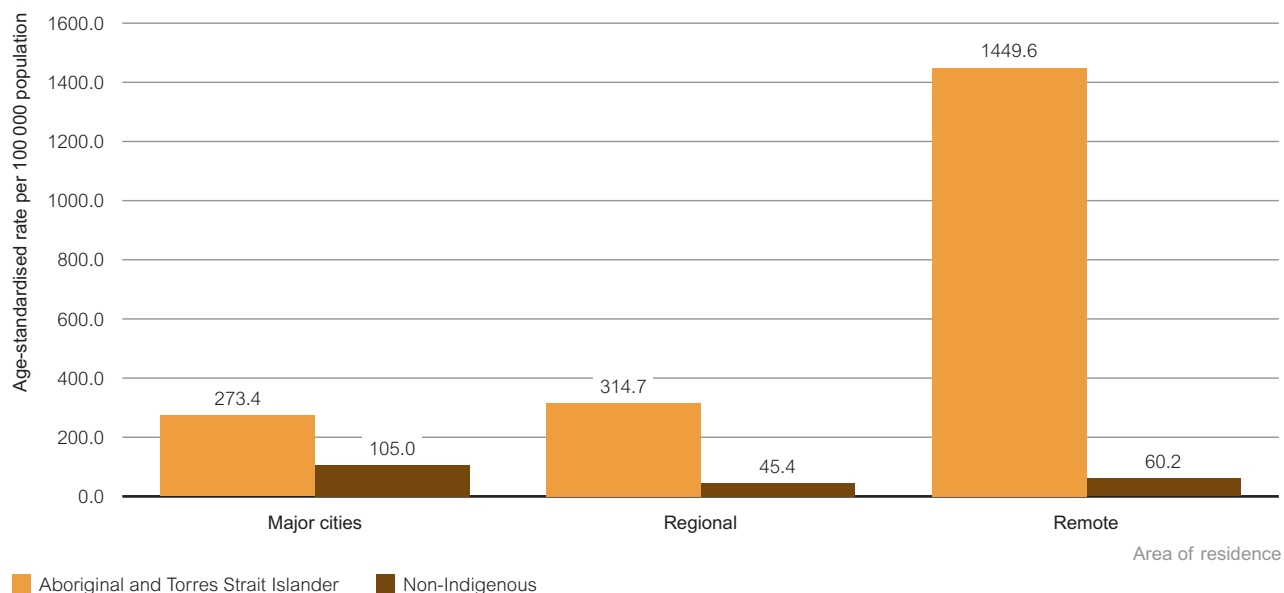
**Figure 47** Gonorrhoea notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and state/territory, 2017–2021



Source: Australian National Notifiable Diseases Surveillance System. Includes all jurisdictions, as Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications for each year.

In 2021, the gonorrhoea notification rate among Aboriginal and Torres Strait Islander peoples living in major cities, was more than twice as high as compared to non-Indigenous people (273.4 vs 105.0 per 100 000), almost seven times as high in regional areas (314.7 vs. 45.4 per 100 000), and 24 times as high in remote areas (1449.6 vs. 60.2 per 100 000) (Figure 48).

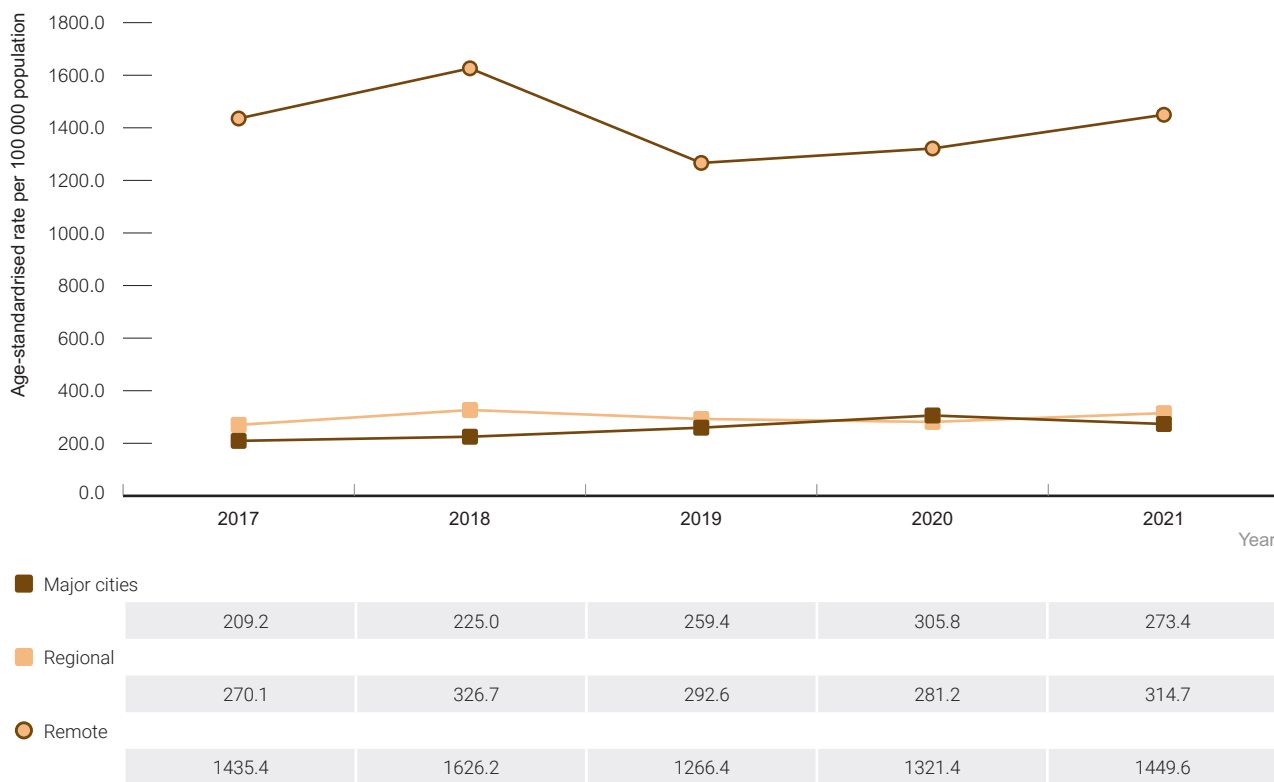
**Figure 48** Gonorrhoea notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and area of residence, 2021



Source: Australian National Notifiable Diseases Surveillance System. Includes all jurisdictions, as Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year.

Between 2017 and 2021, notification rates among Aboriginal and Torres Strait Islander peoples fluctuated for people living in major cities, regional areas, and remote areas (Figure 49)

**Figure 49** Gonorrhoea notification rate in Aboriginal and Torres Strait Islander peoples per 100 000 population by area of residence, 2017–2020



Source: Australian National Notifiable Diseases Surveillance System. Includes all jurisdictions, as Aboriginal and Torres Strait Islander status was reported for  $\geq 50\%$  of notifications for each year.

# Syphilis

## Infectious syphilis

Syphilis is a sexually transmissible infection caused by the bacterium *Treponema pallidum*. An expanded infectious syphilis national case definition was implemented in July 2015 in all jurisdictions except for New South Wales, where it was implemented in July 2016. The new case definition includes a new subcategory of 'probable' infectious syphilis to capture infectious syphilis cases in people without a prior testing history, particularly young people aged 15–19 years. The probable infectious syphilis cases are included in the number of infectious syphilis notifications for the years 2015–2021. Since 2011, there has been a resurgence of infectious syphilis notification in regional and remote communities of the northern and central Australia.

Aboriginal and Torres Strait Islander status is relatively complete for all jurisdictions, enabling at least 80% of all infectious syphilis notifications in all jurisdictions to be notified by Aboriginal and Torres Strait Islander status for every year from 2012 to 2021. For this reason, infectious syphilis data are presented for the 10-year period 2012 to 2021.

There were 5570 infectious syphilis notifications in Australia in 2021. Of these, 959 (17%) notifications were among Aboriginal and Torres Strait Islander peoples, 4233 (76%) were among non-Indigenous people, and 378 (7%) were among people for whom Aboriginal and Torres Strait Islander status was not reported <sup>(1)</sup>.

The ratio of male to female notifications in Aboriginal and Torres Strait Islander peoples in 2021 was 0.9:1 compared with 7.6:1 in non-Indigenous people (data not shown). This may indicate greater transmission occurring through heterosexual contact among Aboriginal and Torres Strait Islander peoples than among non-Indigenous people.

**Table 8 Infectious syphilis notifications in Aboriginal and Torres Strait peoples, by characteristic, 2012–2021**

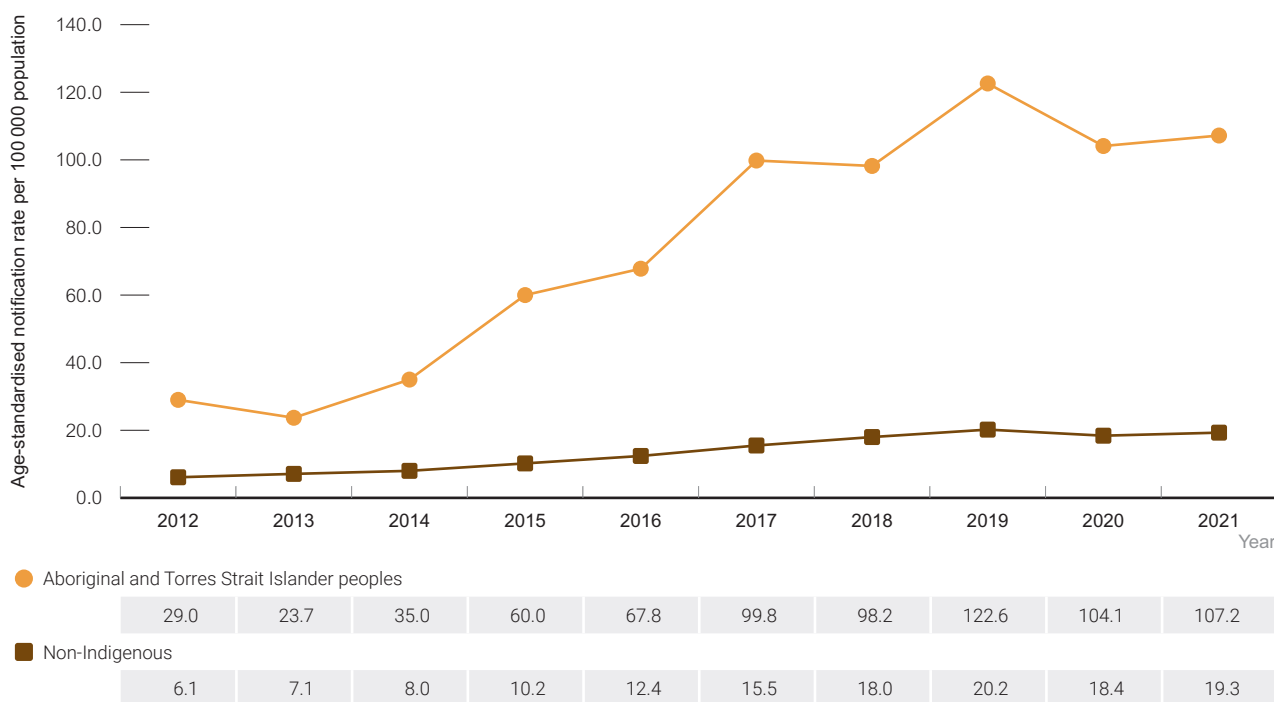
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Characteristic</b>										
<b>Total cases</b>	186	161	254	461	544	797	806	1034	901	959
<b>Gender<sup>a</sup></b>										
Male	101	89	141	263	299	406	418	515	449	460
Female	85	72	113	198	245	391	388	518	452	499
<b>Median age in years</b>	31.5	30	29	26	26	28	27	27	27	27
<b>State/Territory</b>										
Australian Capital Territory	1	0	3	1	0	1	3	5	5	0
New South Wales	12	20	32	22	24	44	46	73	86	95
Northern Territory	13	12	59	184	206	270	289	307	241	201
Queensland	128	108	136	176	221	352	288	320	217	209
South Australia	11	6	3	16	12	28	38	34	33	26
Tasmania	0	1	0	0	0	0	0	0	1	1
Victoria	8	6	8	16	29	30	40	49	24	47
Western Australia	13	8	13	46	52	72	102	246	294	380
<b>Congenital syphilis cases</b>	0	4	3	2	1	5	4	1	8	9

a Excludes 'Not reported'; The National Notifiable Diseases Surveillance System includes the variable 'Sex' to indicate Sex/Gender. For reporting purposes, 'Gender' is used in place of 'Sex'.

Source: National Notifiable Diseases Surveillance System.

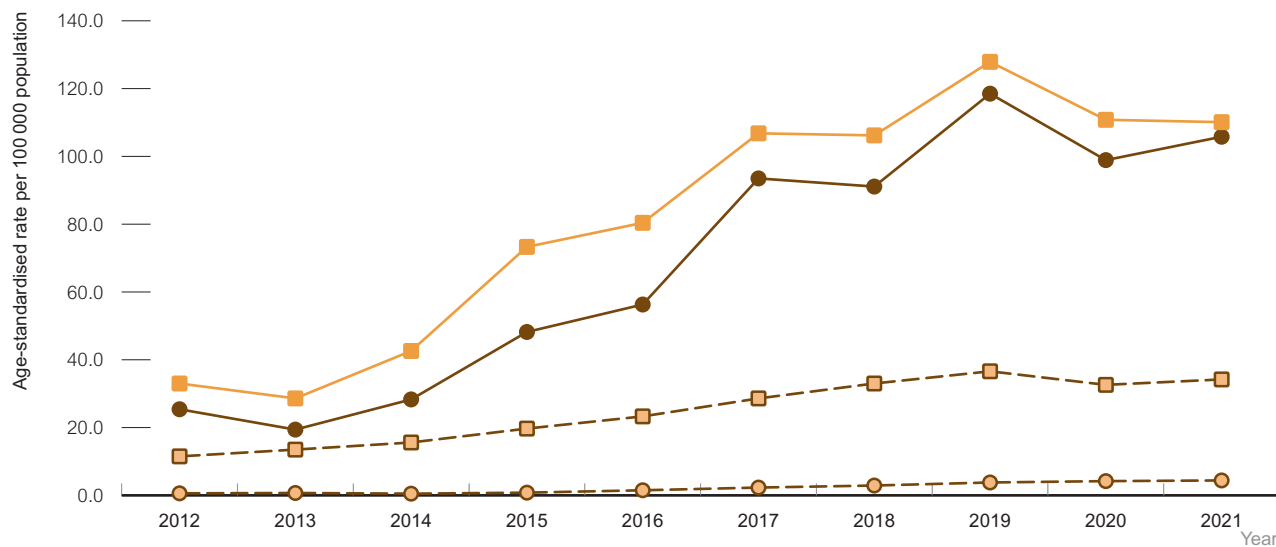
In 2021, the age-standardised infectious syphilis notification rate in Aboriginal and Torres Strait Islander peoples was more than five times as high as among non-Indigenous people (107.2 vs. 19.3 per 100 000). Among Aboriginal and Torres Strait Islander peoples, the infectious syphilis notification rate increased more than three-fold between 2012 and 2019 from 29.0 to 122.6 per 100 000. Between 2019 and 2021, the infectious syphilis notification rate declined to from 122.6 to 107.2 per 100 000, likely due to the impacts of the COVID-19 pandemic (Figure 50). A similar trend over time was seen among Aboriginal and Torres Strait Islander males and females (Figure 51). Infectious syphilis notification rates among both Aboriginal and Torres Strait Islander males and females were three times and 24 times as high as their non-Indigenous gender equivalent, respectively (Figure 51).

**Figure 50 Infectious syphilis notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, 2012–2021**



Source: Australian National Notifiable Diseases Surveillance System.

**Figure 51 Infectious syphilis notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and gender, 2012–2021**



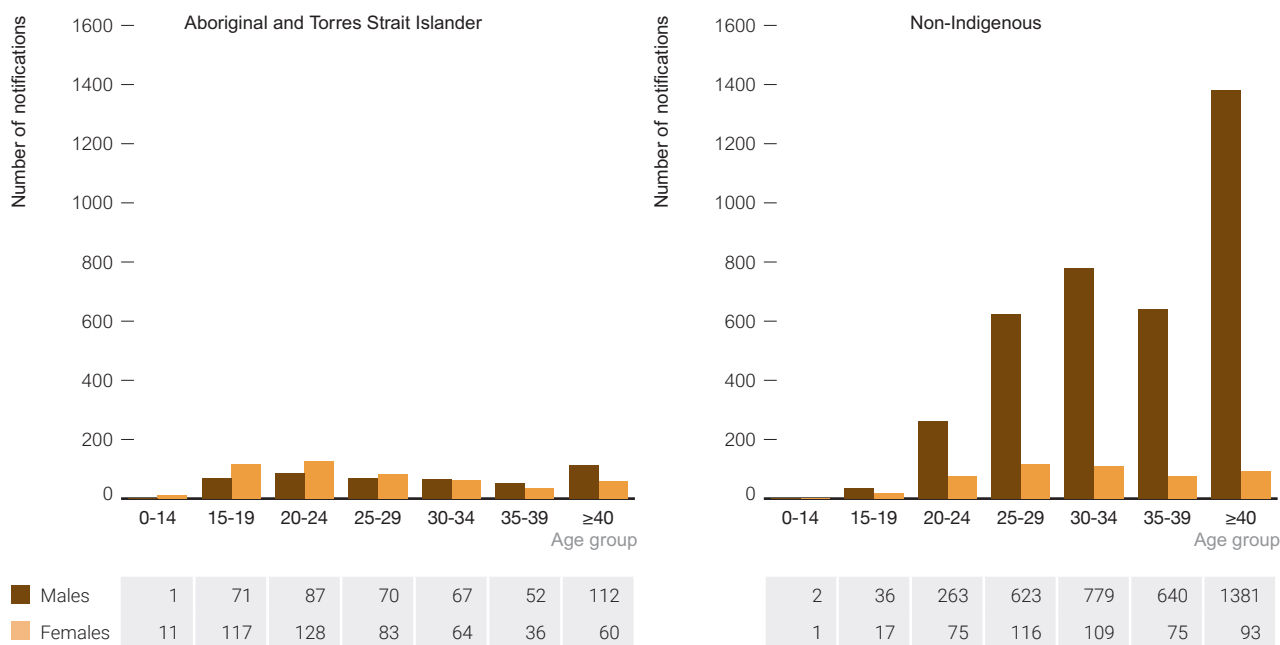
● Aboriginal and Torres Strait Islander females	25.4	19.4	28.3	48.2	56.3	93.5	91.1	118.5	98.9	105.8
■ Aboriginal and Torres Strait Islander males	33.0	28.6	42.6	73.3	80.4	106.8	106.2	127.9	110.8	110.1
○ Non Indigenous females	0.6	0.7	0.5	0.8	1.5	2.3	2.9	3.8	4.2	4.4
■ Non Indigenous males	11.5	13.5	15.6	19.7	23.3	28.6	33.0	36.6	32.6	34.2

Source: Australian National Notifiable Diseases Surveillance System.



Differences in age at notification exist between Aboriginal and Torres Strait Islander peoples and non-Indigenous people. In 2021, the greatest proportion of infectious syphilis notifications in Aboriginal and Torres Strait Islander peoples occurred among those aged 20 to 24 years (22%). By comparison the highest proportion of notifications in non-Indigenous people in 2021 occurred among those aged over 40 years (35%) with a much higher proportion of notifications occurring among males than among females (Figure 52).

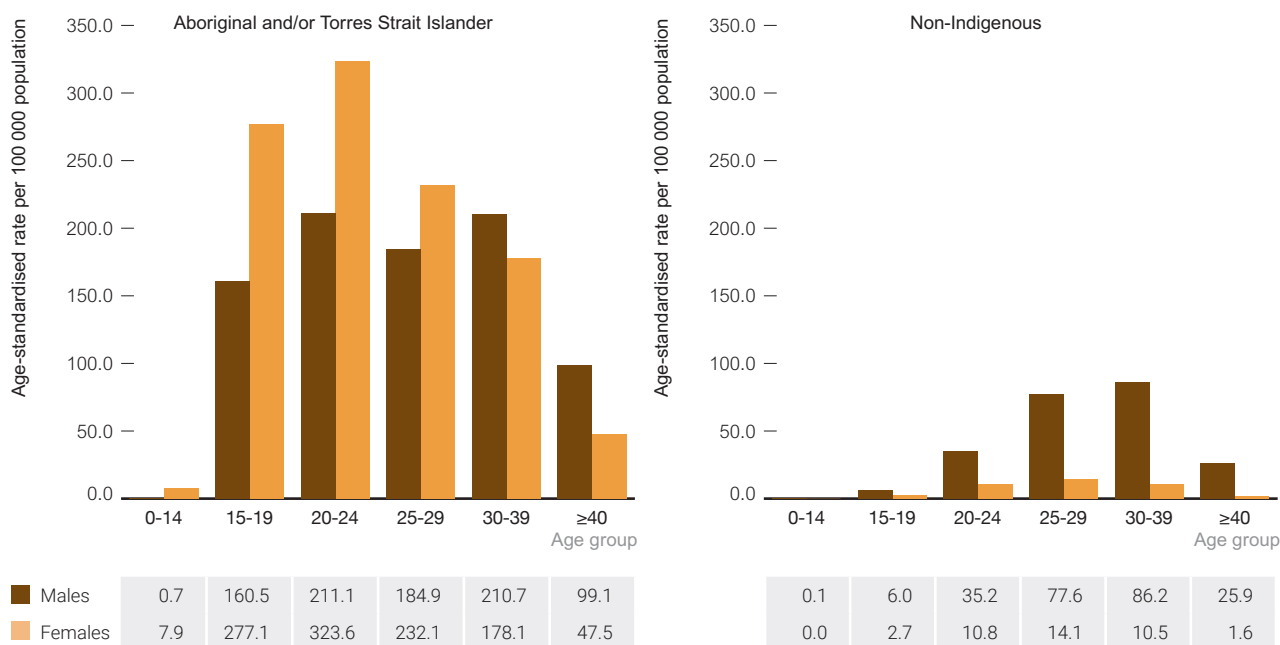
**Figure 52** Number of infectious syphilis notifications by Aboriginal and Torres Strait Islander status, gender, and age group, 2021



Source: Australian National Notifiable Diseases Surveillance System.

In 2021, the infectious syphilis notification rate in males was highest in those aged 30 to 39 years for both Aboriginal and Torres Strait Islander and non-Indigenous males (210.7 per 100 000 and 86.2 per 100 000 respectively). For Aboriginal and/or Torres Strait Islander females, the infectious syphilis notification rate was highest for those aged 20 to 24 years (323.6 per 100 000); among non-Indigenous females the rate was highest for those aged 25 to 29 years (14.1 per 100 000) (Figure 53).

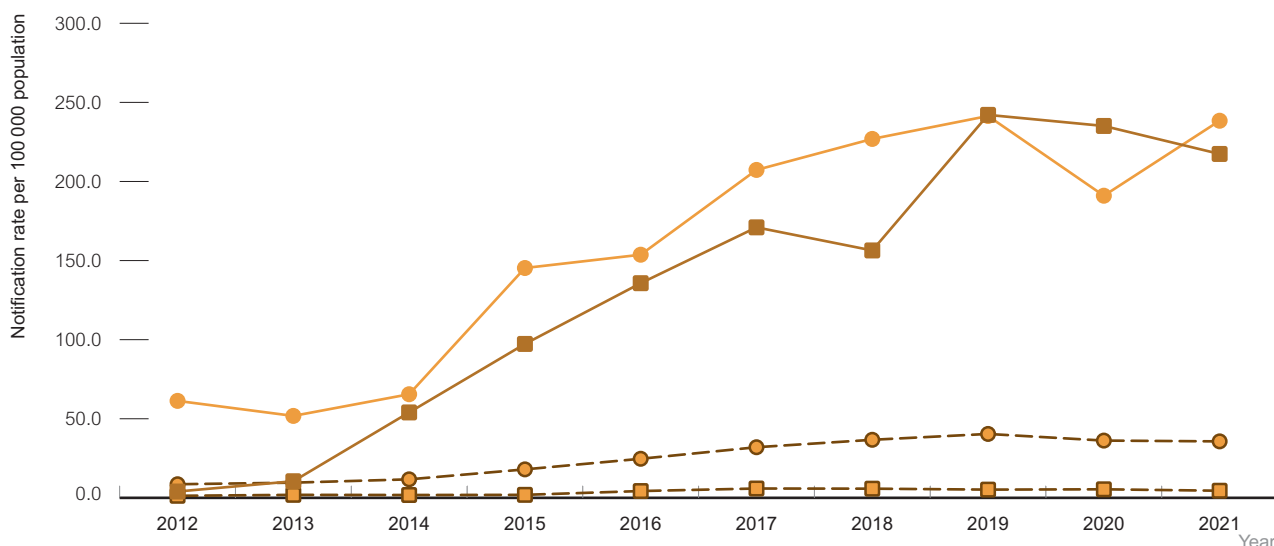
**Figure 53 Infectious syphilis notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and age group, 2021**



Source: Australian National Notifiable Diseases Surveillance System.

Between 2012 and 2019, infectious syphilis notification rates increased sharply in Aboriginal and Torres Strait Islander peoples aged 15 to 19 years and 20 to 29 years from 4.0 to 242.1 per 100 000 and from 61.3 to 241.4 per 100 000, respectively (Figure 54). Infectious syphilis notification rates fluctuated between 2019 and 2021 and in 2021 were 217.4 per 100 000 among those aged 15 to 19 years and 238.4 per 100 000 among those aged 20 to 29 years. In all years and among both age groups, the infectious syphilis notification rate was higher in Aboriginal and Torres Strait Islander peoples than in non-Indigenous people.

**Figure 54 Infectious syphilis notification rate per 100 000 population in Aboriginal and Torres Strait Islander peoples by age group, 2012–2021**

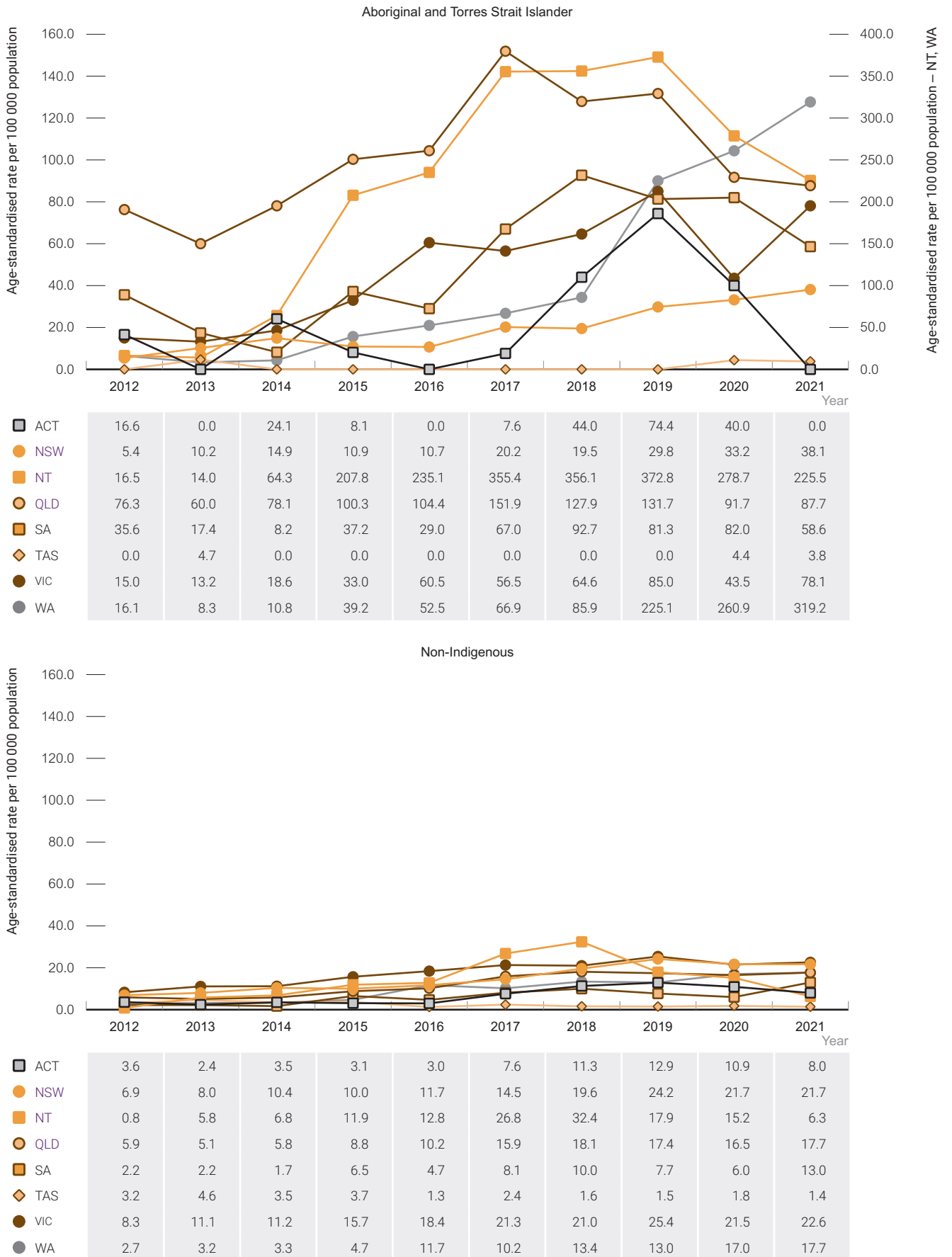


■ Aboriginal and Torres Strait Islander aged 15-19 years	4.0	10.5	54.0	97.3	135.7	171.0	156.4	242.1	235.1	217.4
● Aboriginal and Torres Strait Islander aged 20-29 years	61.3	51.8	65.5	145.3	153.7	207.3	226.9	241.4	191.0	238.4
■ Non-Indigenous aged 15-19 years	1.3	1.9	1.8	1.9	4.3	5.9	5.8	5.2	5.4	4.5
● Non-Indigenous aged 20-29 years	8.6	9.6	11.7	18.0	24.7	32.0	36.7	40.4	36.2	35.7

Source: Australian National Notifiable Diseases Surveillance System.

In 2021, infectious syphilis notification rates among Aboriginal and Torres Strait Islander peoples were highest in Western Australia (319.2 per 100 000), followed by the Northern Territory (225.5 per 100 000), and Queensland (87.7 per 100 000). There were fluctuations in infectious syphilis notification rates by state and territory between 2019 and 2021 due to the COVID-19 pandemic. Between 2012 and 2021, infectious syphilis notification rates among Aboriginal and Torres Strait Islander peoples increased considerably in every state and territory apart from the Australian Capital territory and Tasmania. In 2021, notification rates were at least twice as high among Aboriginal and Torres Strait Islander peoples compared with non-Indigenous peoples in every state and territory apart from the Australian Capital Territory, and New South Wales (Figure 57).

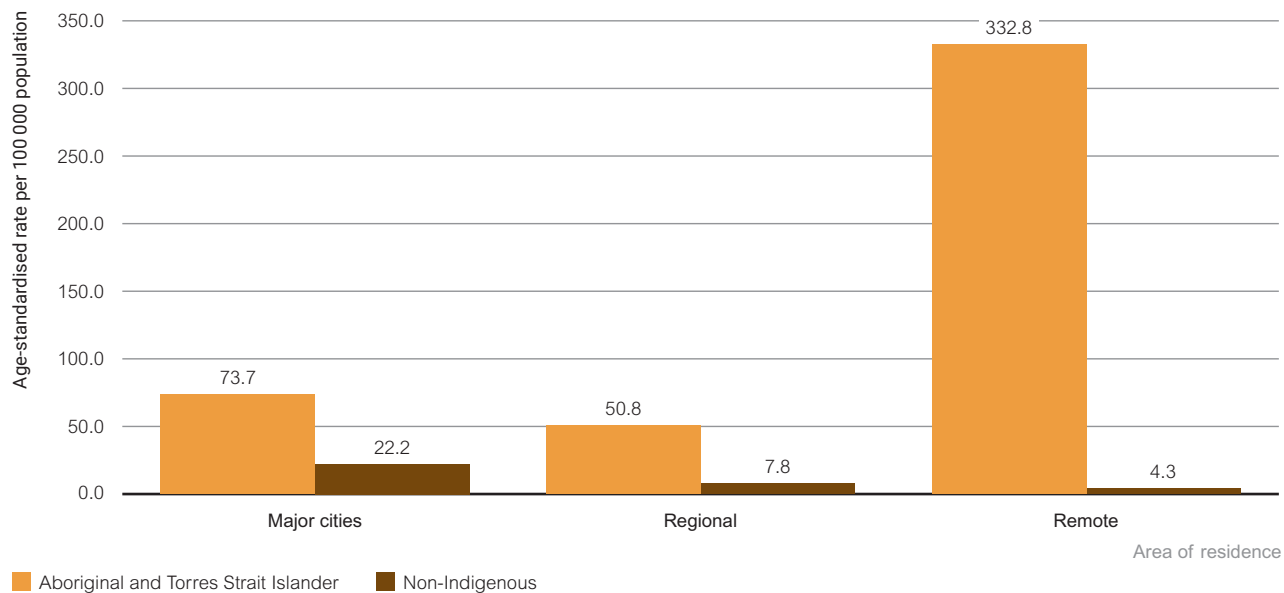
**Figure 55 Infectious syphilis notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and state/territory, 2012–2021**



Source: Australian National Notifiable Diseases Surveillance System.

In 2021, the infectious syphilis notification rate among Aboriginal and Torres Strait Islander peoples in major cities was more than three times as high as among non-Indigenous people (73.7 vs. 22.2 per 100 000), increasing to more than six times in regional areas (50.8 vs. 7.8 per 100 000), and more than 77 times in remote areas (332.8 vs. 4.3 per 100 000) (Figure 56).

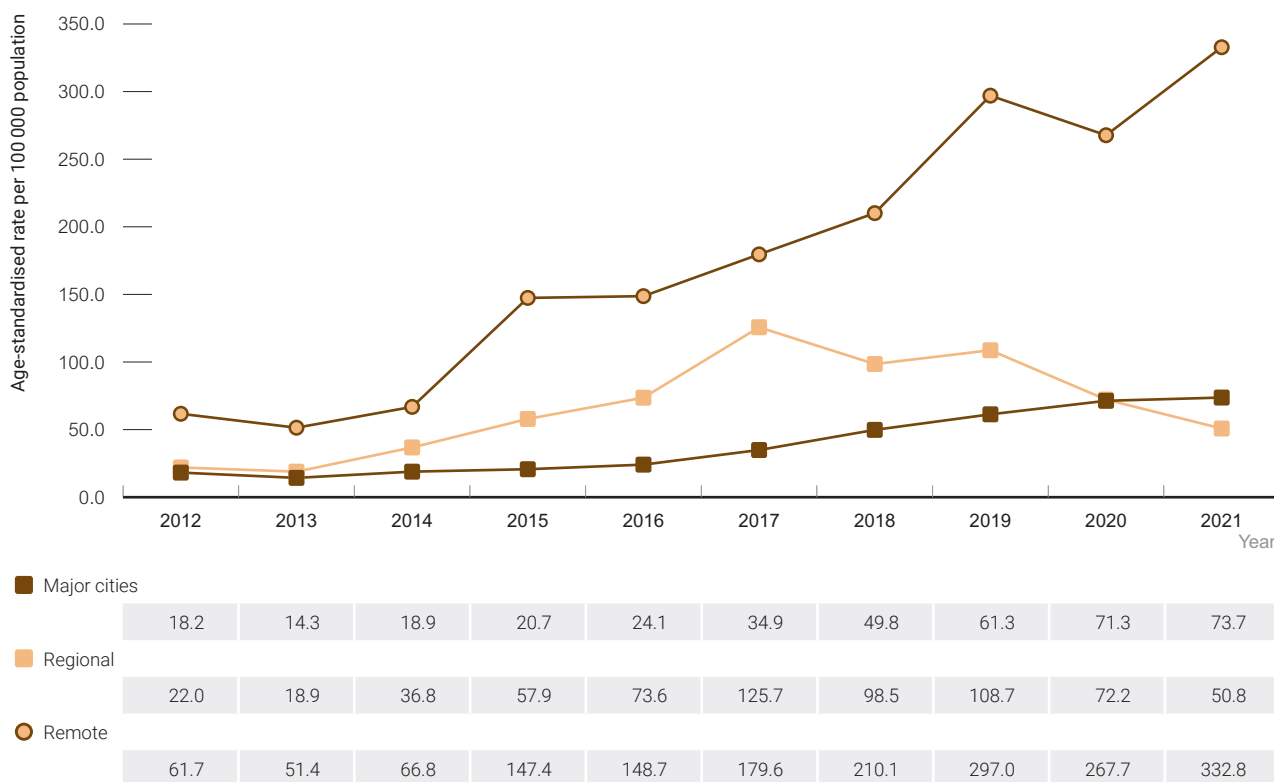
**Figure 56** Infectious syphilis notification rate per 100 000 population by Aboriginal and Torres Strait Islander status and area of residence, 2021



Source: Australian National Notifiable Diseases Surveillance System.

Between 2012 and 2021, infectious syphilis notification rates among Aboriginal and Torres Strait Islander peoples living in major cities and remote areas increased by 400% and 500%, respectively. Despite declines between 2019 and 2021, the infectious syphilis notification rate in regional areas more than doubled between 2012 and 2021 (Figure 57).

**Figure 57 Infectious syphilis notification rate per 100 000 population by area of residence, 2012–2021**

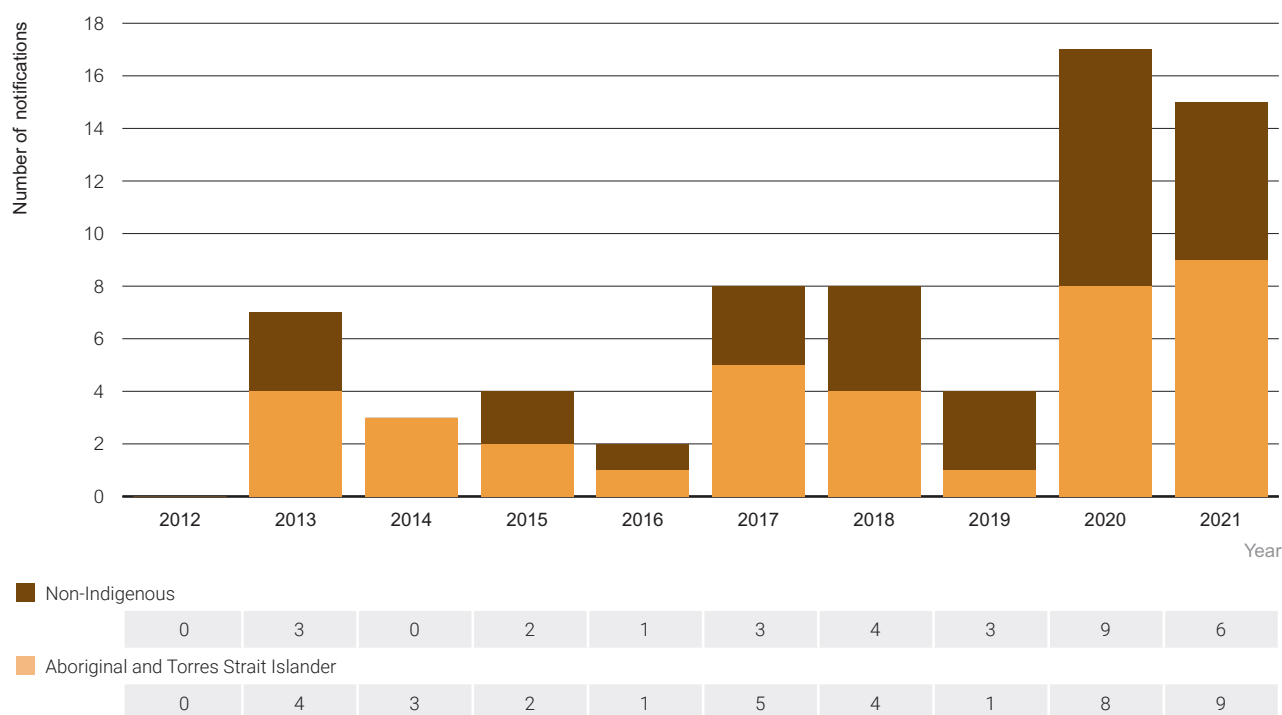


Source: Australian National Notifiable Diseases Surveillance System.

## Congenital syphilis

Congenital syphilis occurs when syphilis is passed from mother to child during foetal development or at birth. Between 2012 and 2021, over half (37) of the 68 congenital syphilis notifications were among Aboriginal and/or Torres Strait Islander infants, with 9 notifications in 2021 (Figure 58). The congenital syphilis notification rate among Aboriginal and Torres Strait Islander infants was 59.1 per 100 000 live births in 2021 in comparison with 2.2 per 100 000 in non-Indigenous people (Figure 59). Caution should be taken when interpreting trends in notification rates due to the small number of congenital syphilis notifications each year.

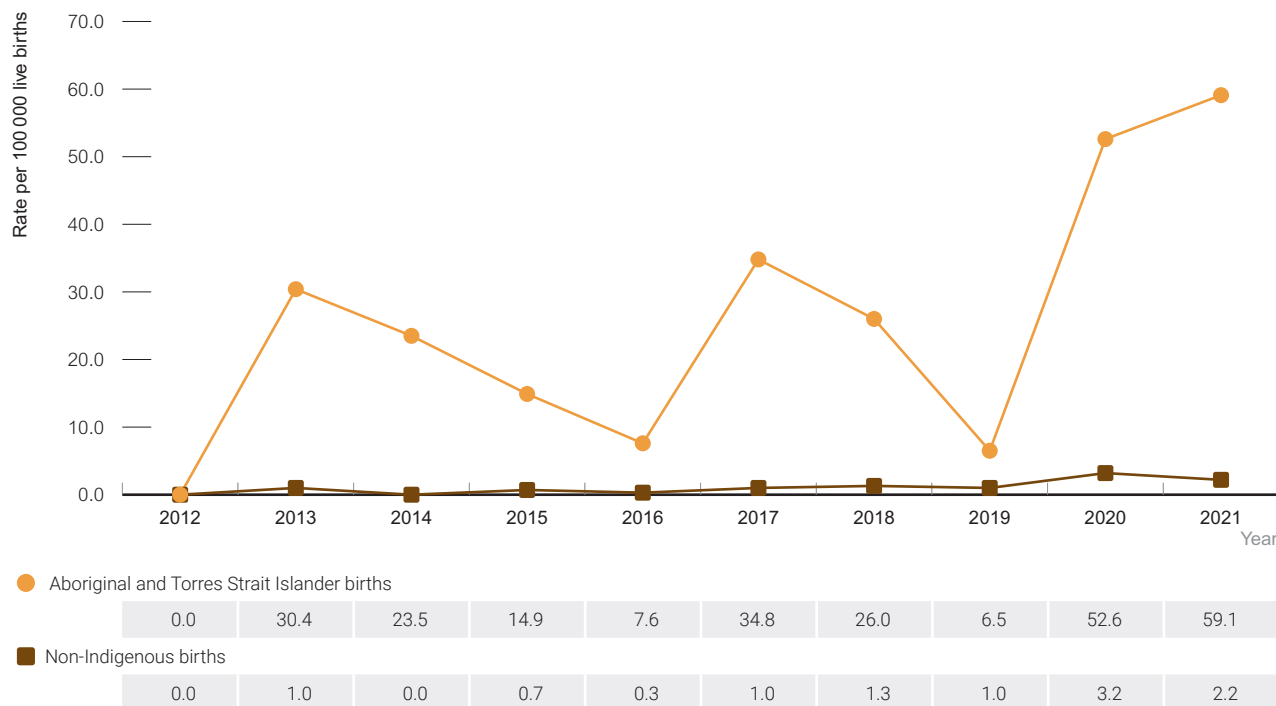
**Figure 58** Number of congenital syphilis cases by Aboriginal and Torres Strait Islander status<sup>a</sup>, 2012–2021



a Includes notifications where Aboriginal and Torres Strait Islander status was not reported.

Source: Australian National Notifiable Diseases Surveillance System.

**Figure 59** Congenital syphilis rate per 100 000 live births by Aboriginal and Torres Strait Islander status<sup>a</sup>, 2012–2021



<sup>a</sup> Includes notifications where Aboriginal and Torres Strait Islander status was not reported.

Source: Australian National Notifiable Diseases Surveillance System.



## Donovanosis

The National Donovanosis Eradication (Elimination) Project was implemented in 2001–2004, following the introduction of improved methods of diagnosis and treatment of donovanosis. The project employed strategies such as targeted surveillance, high-quality education, and support of primary healthcare workers in their management of genital ulcerative disease, intermittent or short-course oral medication and new laboratory techniques.

Australia is on track to eliminate donovanosis, which was once a frequently diagnosed sexually transmissible infection among remote Aboriginal populations. Since 2012 there have only been two cases notified, one in 2012 and one in 2014 (data not shown).

## Human papillomavirus

Human papillomavirus (HPV) types 16 and 18 cause 70% to 80% of cervical cancer and about half of high-grade cervical intraepithelial neoplasia (CIN grade 2 or 3) lesions, and genotypes 6 and 11 cause most cases of genital warts. In Australia, the quadrivalent HPV vaccine (types 16, 18, 6 and 11) is provided free in schools to all students aged 12–13 years under the National HPV Vaccination Program. The program began in 2007 for girls and was extended to include boys in 2013.

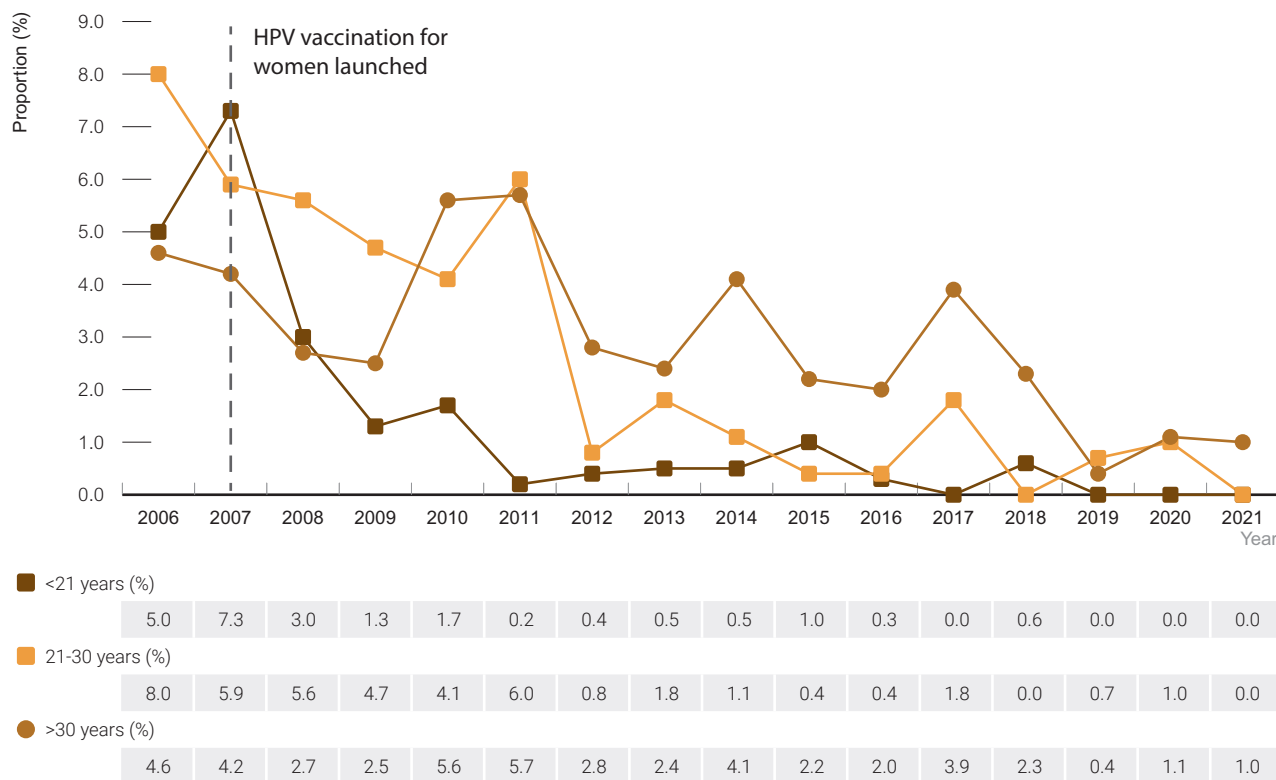
Catch-up programs through schools, general practices and community immunisation services were run from 2007 to 2009 for females aged 14–26 years, and from 2013 to 2015 for males aged 14–15 years <sup>(7)</sup>. Data on HPV vaccination coverage is currently not available by Aboriginal and Torres Strait Islander status but will be available in the future. The Genital Warts Surveillance Network is a sentinel surveillance system that includes over 50 sexual health clinics across Australia and provides evaluation of the population-level effects of the National HPV Vaccination Program. The network also monitors epidemiological trends of genital wart diagnoses by routinely collected de-identified data on demographics, sexual behaviours, associated with genital wart clinical diagnoses from patient management systems

Following the introduction of vaccination against HPV in 2007, a decline has been seen in the number of diagnoses of genital warts at first visit at sexual health clinics (see the [HIV, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2022](#) for further detail). Information available from sexual health clinics included in the Genital Warts Surveillance Network indicates a considerable reduction in the proportion of both Aboriginal and Torres Strait Islander males and females under 30 notified with genital warts at their first visit since 2007.

Among Aboriginal and Torres Strait Islander females aged under 21 years, the proportion diagnosed with genital warts at first visit declined from 5.0% in 2006 to 0.0% in 2021. Among women aged 21 to 29 years, the proportion diagnosed with genital warts reduced from 8.0% in 2006 to 0.0% in 2021. The proportion of Aboriginal and Torres Strait Islander women aged 30 years or older diagnosed with genital warts diagnoses declined from 4.6% in 2006 to 1.0% in 2021 (Figure 60).

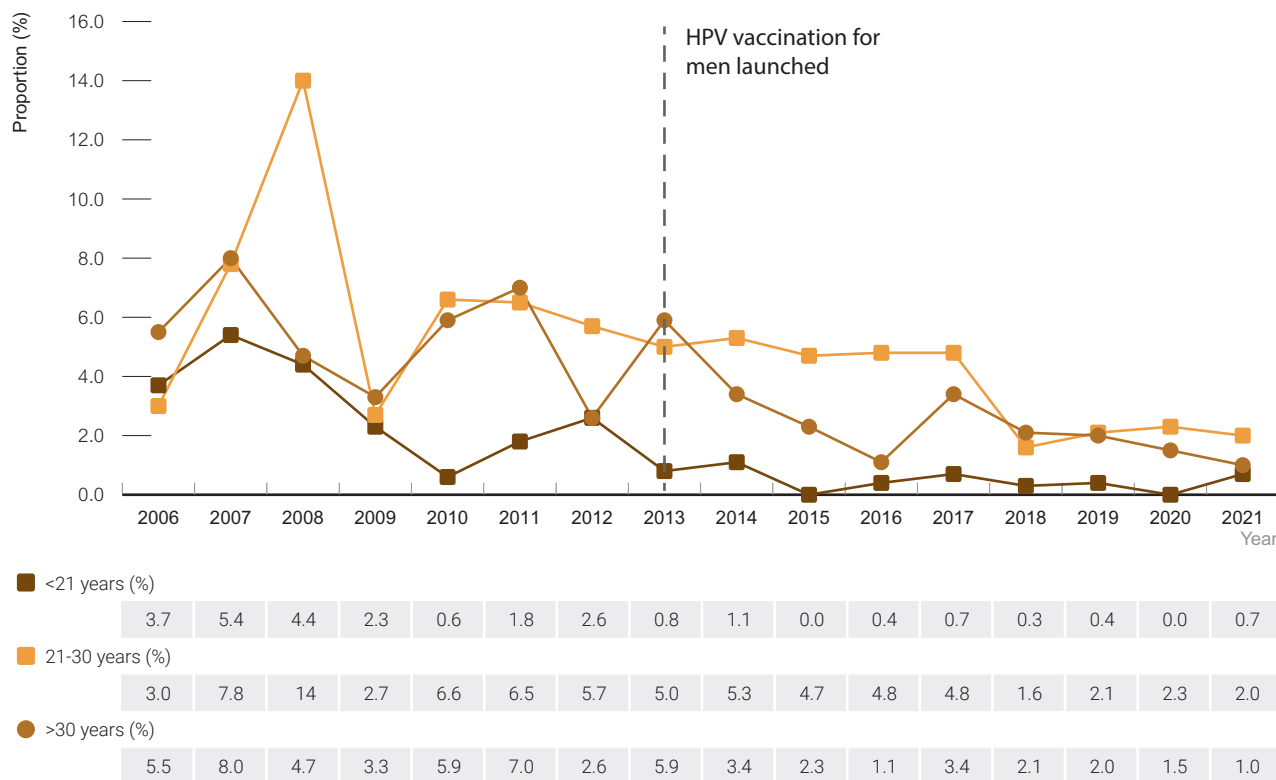
Among Aboriginal and Torres Strait Islander males aged under 21 years, the proportion diagnosed with genital warts at first visit declined from 3.7% in 2006 to 0.7% in 2021. Among men aged 21 to 29 years there the proportion diagnosed with genital warts reduced from 3.0% in 2006 to 2.0% in 2021. The proportion of Aboriginal and Torres Strait Islander men aged 30 years or older diagnosed with genital warts diagnoses declined from 5.5% in 2006 to 1.0% in 2021 (Figure 61).

**Figure 60** Proportion of Aboriginal and Torres Strait Islander females notified with genital warts at first visit at sexual health clinics by age group, 2006–2021



Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance); Genital Wart Surveillance Network.

**Figure 61** Proportion of Aboriginal and Torres Strait Islander males notified with genital warts at first visit at sexual health clinics, by age group 2006–2021



Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance); Genital Wart Surveillance Network.

# Acknowledgements

Groups and committees involved in the development of the Surveillance Report, as well as the individuals and organisations that provided data for inclusion in this report, are listed below. The Aboriginal and Torres Strait Islander report was initially developed by Professor James Ward.

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- Joshua Riessen, Program Officer of sexual health/ BBV, Aboriginal Health Council of South Australia, SA
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- Dr Skye McGregor, Mr Jonathan King, Ms Ela Naruka The Kirby Institute, UNSW Sydney, Sydney, NSW

## ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance)

- Canberra Sexual Health Centre, Canberra; Hobart Place Practice, Canberra; ACT
- Liverpool Sexual Health Clinic, Liverpool; Coffs Harbour Sexual Health Clinic, Coffs Harbour; Grafton Sexual Health Clinic, Grafton; Albury Sexual Health Clinic, Albury; Bega Community Health Service, Bega; Goulburn Sexual Health Clinic, Goulburn; Griffith Sexual Health Clinic, Griffith; Narooma Sexual Health Clinic, Narooma; Queanbeyan Sexual Health Clinic, Queanbeyan; Wagga Sexual Health Clinic, Wagga Wagga; Holden Street Clinic, Gosford; Newcastle Sexual Health Clinic, Newcastle; Forster Sexual Health Clinic, Forster; Bligh Street Clinic, Tamworth; Taree Manning Clinic, Taree; Illawarra Sexual Health Clinic, Warrawong; Nowra Sexual Health Clinic, Nowra; Clinic 180, Potts Point; Lismore Sexual Health Service, Lismore; Tweed Heads Sexual Health Service, Tweed Heads; Clinic 16, North Shore Sexual Health Service, Sydney; Manly Sexual Health Clinic, Sydney; RPA Sexual Health Clinic, Sydney; Short Street Centre Sexual Health Clinic, Kogarah; Western Sydney Sexual Health Centre, Parramatta; Mt Druitt Sexual Health Clinic (formerly Luxford Road Sexual Health Clinic), Mt Druitt; Blue Mountains Sexual Health Clinic, Katoomba; Nepean Sexual Health Clinic, Penrith; Sydney Sexual Health Centre, Sydney; WAYS Youth Health Clinic, Bondi Junction; Lightning Ridge Sexual Health Service, Lightning Ridge; Bourke Sexual Health Service, Bourke; Dubbo Sexual Health, Dubbo; Orange Sexual Health Clinic, Kite Street Community Health Centre, Orange; Broken Hill Sexual Health, Broken Hill; Balranald Sexual Health Service, Dareton; a[TEST], Darlinghurst; a[TEST], Newtown; a[TEST], Surry Hills; Bungendore Medical Centre, Bungendore; East Sydney Doctors, Darlinghurst; Fountain Street General Practice, Alexandria; Macleay Street Medical, Potts Point; Taylor Square Private Clinic, Surry Hills; Dr Doong Practice, Burwood; Kildare Road Medical Centre, Blacktown; Waterloo Medical Centre, Waterloo; Holdsworth House Medical Practice, Darlinghurst; Westmead Hospital, Westmead; Immunology B Ambulatory Care, St Vincent's Hospital, Darlinghurst; NSW
- Clinic 34 Darwin and Clinic 34 Alice Springs, Sexual Health and Blood Borne Virus Unit, Centre for Disease Control, Department of Health, Darwin, NT
- Cairns Sexual Health Clinic, Cairns; Gold Coast Sexual Health Service, Miami; Princess Alexandra Sexual Health, Woolloongabba; Townsville Sexual Health Service, Townsville; Mackay Sexual Health Clinic, Mackay; Mount Isa Sexual Health Clinic, Mount Isa; Palm Island Sexual Health Clinic, Palm Island; Clinic 30, Brisbane; Medeco Inala, Inala; Stonewall Medical, Windsor; QLD
- Clinic 275 Sexual Health, Adelaide; O'Brien Street General Practice, Adelaide; Shine SA clinics (including Rapido Testing Service), Adelaide; SA
- Hobart Sexual Health Service, Hobart; Launceston Sexual Health Service, Launceston; Devonport Sexual Health Service, Devonport; TAS
- Melbourne Sexual Health Centre, Melbourne; Barwon Reproductive and Sexual Health (BRASH) Clinic, Geelong; Ballarat Community Health, Ballarat; Bendigo Community Health Clinic, Bendigo; Centre Clinic, St Kilda; Docker St Medical Centre, Wangaratta; Frankston Health, Frankston; Cohealth, Melbourne; North Richmond Community Health, Richmond; EACH Social and Community Health, Melbourne; Dandenong Superclinic, Dandenong; Lygon Court Medical Centre, Carlton; Mediclinic, Clayton; Prahran Market Clinic, Prahran; Pronto!, Abbotsford; Northside Clinic, Fitzroy North; The Alfred Hospital HIV Clinic, Melbourne; VIC
- South Terrace Sexual Health Clinic, Fremantle; Perth Sexual Health Clinic, Perth; Deen Clinic, Northbridge; GP on Beaufort, Mount Lawley; M Clinic, Perth; View St Medical, North Perth; WA

## Genital Warts Surveillance Network

- ACT - Canberra Sexual Health Centre, Canberra
- NSW - Liverpool Sexual Health Clinic, Liverpool; Coffs Harbour Sexual Health Clinic, Coffs Harbour; Grafton Sexual Health Clinic, Grafton; Albury Sexual Health Clinic, Albury; Bega Community Health Service, Bega; Goulburn Sexual Health Clinic, Goulburn; Griffith Sexual Health Clinic, Griffith; Narooma Sexual Health Clinic, Narooma; Queanbeyan Sexual Health Clinic, Queanbeyan; Wagga Sexual Health Clinic, Wagga Wagga; Holden Street Clinic, Gosford; Newcastle Sexual Health Clinic, Newcastle; Forster Sexual Health Clinic, Forster; Bligh Street Clinic, Tamworth; Taree Manning Clinic, Taree; Illawarra Sexual Health Clinic, Warrawong; Nowra Sexual Health Clinic, Nowra; Kirketon Road Centre, Darlinghurst; Clinic 180, Potts Point; Lismore Sexual Health Service, Lismore; Tweed Heads Sexual Health Service, Tweed Heads; Clinic 16, North Shore Sexual Health Service, Sydney; Manly Sexual Health Clinic, Sydney; RPA Sexual Health Clinic, Sydney; Short Street Centre Sexual Health Clinic, Kogarah; Western Sydney Sexual Health Centre, Parramatta; Mount Druitt Sexual Health Clinic (formerly Luxford Road Sexual Health Clinic), Mount Druitt; Blue Mountains Sexual Health Clinic, Katoomba; Nepean Sexual Health Clinic, Penrith; Sydney Sexual Health Centre, Sydney; WAYS Youth Health Clinic, Bondi Junction; Lightning Ridge Sexual Health Service, Lightning Ridge; Bourke Sexual Health Service, Bourke; Dubbo Sexual Health, Dubbo; Orange Sexual Health Clinic, Kite Street Community Health Centre, Orange; Broken Hill Sexual Health, Broken Hill; Balranald Sexual Health Service, Dareton; a[TEST], Darlinghurst; a[TEST], Newtown; a[TEST], Surry Hills
- NT - Alice Springs Clinic 34, Alice Springs; Darwin Clinic 34, Darwin
- QLD - Cairns Sexual Health Clinic, Cairns; Gold Coast Sexual Health Service, Miami; Princess Alexandra Sexual Health, Woolloongabba; Townsville Sexual Health Service, Townsville; Mackay Sexual Health Clinic, Mackay; Mount Isa Sexual Health Clinic, Mt Isa; Palm Island Sexual Health Clinic, Palm Island
- SA - Clinic 275 Sexual Health, Adelaide
- TAS - Hobart Sexual Health Service, Hobart; Launceston Sexual Health Service, Launceston; Devonport Sexual Health Service, Devonport
- VIC - Melbourne Sexual Health Centre, Melbourne; Barwon Reproductive and Sexual Health Clinic, Geelong
- WA - Fremantle Hospital Sexual Health Clinic, Fremantle

## Collaboration of Australian Needle Syringe Programs

- ACT - Directions ACT, Canberra
- NSW - ACON Hunter; First Step Program Port Kembla; Hunter Harm Reduction Services, Newcastle; Kirketon Road Centre and Clinic 180, Kings Cross; Mid North Coast Harm Reduction, Coffs Harbour; NSW Users and AIDS Association, Surry Hills; Northern NSW Harm Reduction, Ballina, Byron Bay, Lismore, Nimbin, and Tweed Heads; Sydney Harm Minimisation, Redfern, Canterbury and RPA Hospital; South Court Primary Care NSP, Nepean; Western Sydney HIV/ Hepatitis C Prevention Service, Blacktown, Mount Druitt and Parramatta, St Vincent's Centre for Applied Medical Research, NSW State Reference Laboratory for HIV at St Vincent's Hospital
- NT - Northern Territory AIDS and Hepatitis C Council, Alice Springs, Darwin and Palmerston
- QLD - Biala Community Alcohol and Drug Services, Brisbane; Cairns ATODS NSP, Cairns; Queensland Injectors Health Network, Brisbane, Gold Coast and Sunshine Coast; Kobi House, Toowoomba; West Moreton Sexual Health Service, Ipswich; Townsville ATODS NSP
- SA - Drug and Alcohol Services South Australia, Adelaide; Anglicare Salisbury, Salisbury; Drug Arm, Warradale; Hindmarsh Centre, Hindmarsh; Noarlunga Community Health Service, Noarlunga; Nunkuwarrin Yunti Community Health Centre, Adelaide; Port Adelaide Community Health Centre, Port Adelaide; Street Link Youth Health Service, Adelaide
- TAS - Anglicare NSP Service, Hobart and Glenorchy; Clarence Community Health Centre, Clarence; Burnie NSP Service, Burnie
- VIC - Barwon Health Drug and Alcohol Services, Geelong; Health Information Exchange, St Kilda; Health Works, Footscray; Inner Space, Collingwood; North Richmond NSP, North Richmond; Southern Hepatitis/HIV/AIDS Resource and Prevention Service, Melbourne
- WA - Hepatitis WA, Perth: WA AIDS Council Mobile Exchange, Perth; Western Australia Substance Users Association, Perth and South Coast; WA.

## National Organisations

- Australasian Sexual Health Alliance, Sydney, NSW
- Australasian Society for HIV, Viral Hepatitis and Sexual Health 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 Lifeblood, Melbourne, VIC
- Centre for Social Research in Health, UNSW Sydney, Sydney, NSW
- Communicable Diseases Network Australia, Canberra, ACT
- Hepatitis Australia, Canberra, ACT
- Burnet Institute for Medical Research and Public Health, Prahran, VIC
- National Aboriginal Community Controlled Health Organisation, Canberra, ACT
- National Association of People with HIV Australia, Sydney, NSW
- National Serology Reference Laboratory, Australia, Fitzroy, VIC
- Scarlet Alliance, Australian Sex Workers Association, Sydney, NSW
- WHO Collaborating Centre for Viral Hepatitis, The Doherty Institute, VIC

## State/Territory Health Departments

- Rachael Crane, Alexandra Marmor, Communicable Disease Control Section, Health Protection Service, ACT Government, Canberra, ACT
- Rebecca Stephenson, Cecilia Li, Communicable Diseases Branch, Health Protection NSW, NSW Health, NSW Government, North Sydney, NSW
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- Damin Si, Emma Sanguineti, Abby Fryer, Jacqueline Kennedy, Kim Dowling, Sonia Benn, Rohan Anderson, Lucy Thallon, Colette Cashman, Communicable Diseases Branch, Queensland Department of Health, Queensland Government, Brisbane, QLD
- Jana Sisnowski, Communicable Disease Control Branch, SA Health, Government of South Australia, Adelaide SA
- Jon Moore, Department of Health and Human Services, Tasmanian Government, Hobart, TAS
- Alvin Lee, Nasra Higgins, Communicable Disease Epidemiology and Surveillance, Health Protection Branch, Department of Health, Victoria State Government, Melbourne, VIC
- Carolien Giele, Byron Minas, Kellie Mitchell, Communicable Disease Control Directorate, WA Department of Health, Government of Western Australia, Perth, WA



# References

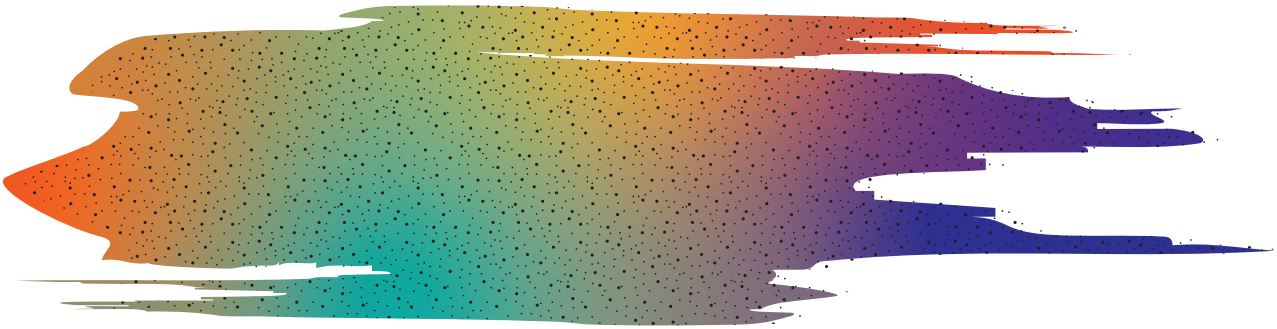
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6. Australian Institute of Family Studies. What is child abuse and neglect? [Internet]. [cited 2022 Oct 25]. Available from: <https://aifs.gov.au/resources/policy-and-practice-papers/what-child-abuse-and-neglect>.
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## Cover Artwork Narrative & Description

The circles represent the different communities and organisations we are part of. These circles are all made up of many other circles with different styles and patterns, this is symbolic of the different kinds of people that make up a community or an organisation. Each person has their own story, knowledge and experience.



The background is made up of the changing landscapes as we move across this land from country to country. There is blue for the coast, with yellow sands. We move further inland and get rainforest green and bushland before coming into the oranges and burnt umbers that make up the deserts and grasslands.



The lines that connect everything together have two meanings. They represent the way we engage with each other, with services, the way we move about across country. They also represent the way we can easily spread viruses and diseases if we are not careful about the way we engage with others. Everybody communicates differently and we engage services at different times and for different reasons. We are all on a journey and that will look different for each person.



