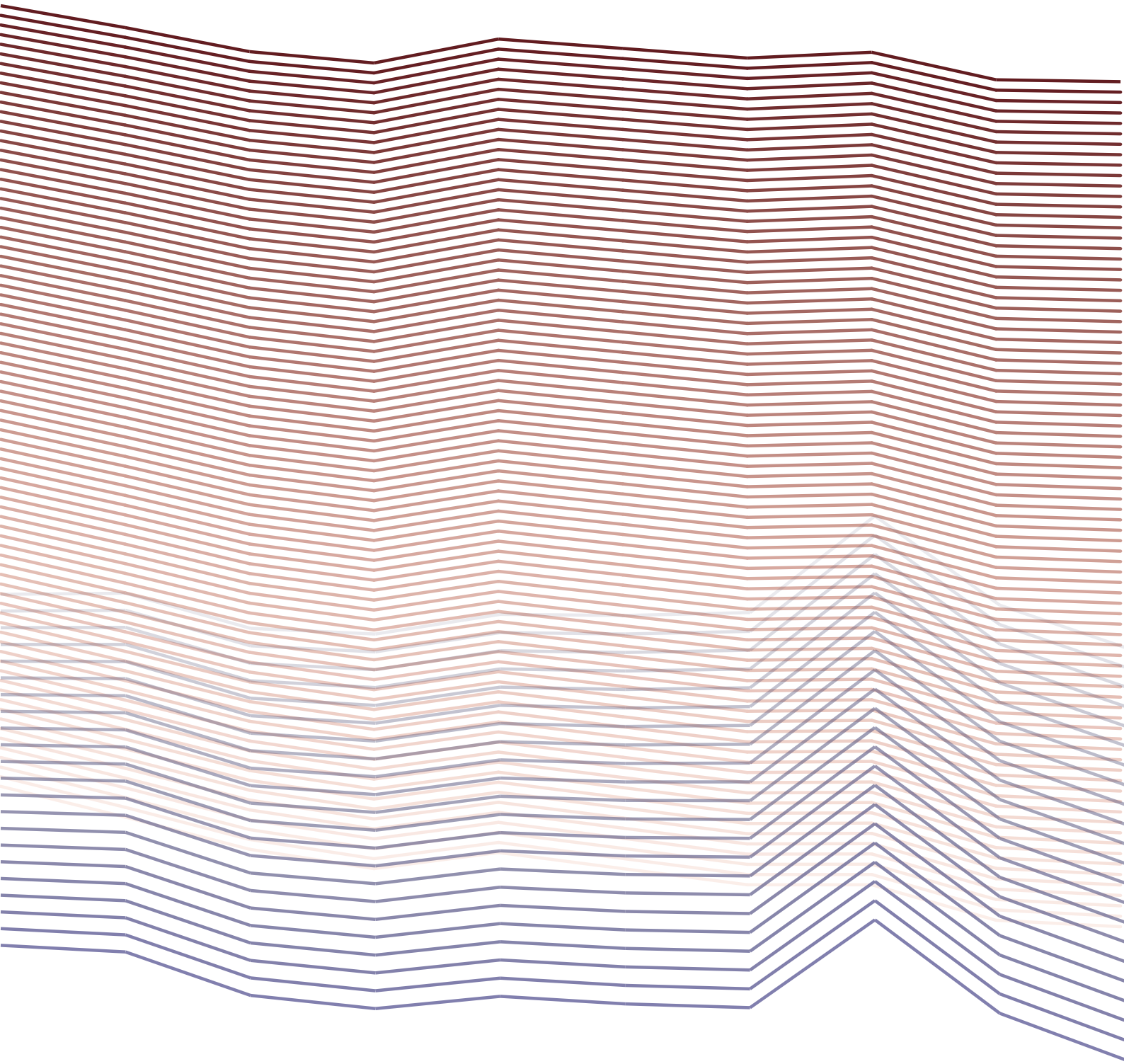
National update on HIV, viral hepatitis and sexually transmissible infections in Australia

2009–2018



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National update on HIV, viral hepatitis and sexually transmissible infections in Australia: 2009–2018

Due to the ongoing COVID-19 pandemic, there have been delays in the release of data usually reported in the *HIV, viral hepatitis and sexually transmissible infections in Australia: Annual surveillance report*. In lieu of the release of the full report, the following summary data have been made available. Unless otherwise specified, the years 2014 to 2018 are used for comparison. These data, including full data tables and charts as well as additional information can be found on the Kirby Institute's data site: https://data.kirby.unsw.edu.au/

The Kirby Institute is funded by the Australian Government Department of Health and is affiliated with the Faculty of Medicine, UNSW Sydney. The Surveillance, Evaluation and Research Program at the Kirby Institute is responsible for the public health monitoring and evaluation of patterns of transmission of bloodborne viral and sexually transmissible infections.

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Executive summary

- Between 2014 and 2018 the number of HIV notifications reduced by 23%, due to more people living with HIV knowing their HIV status, people living with HIV starting treatment earlier, and a strong uptake of pre-exposure prophylaxis (PrEP) among gay and bisexual men.

- Continued reductions in new hepatitis C notifications and prevalence were seen in 2018 because of the introduction of subsidised direct-acting antiviral therapies in 2016. A corresponding increase in the number of people reporting ever having received treatment for hepatitis C was reported by participants of the Australian Needle and Syringe Program Survey.

- Gradual reductions in the number of new hepatitis B notifications have continued in 2018, largely due to the introduction of universal infant hepatitis B vaccination, adolescent vaccination catch-up programs and targeted vaccination programs for populations who are at increased risk for acquiring hepatitis B. Despite these gains, the hepatitis B diagnosis and care cascade indicates that only an estimated 68% of those living with chronic hepatitis B have been diagnosed, short of the 80% target outlined in the Third National Hepatitis B Strategy (2018–2022).

- Increases in the number of notifications of chlamydia, gonorrhoea, and syphilis were seen in 2018. For gonorrhoea and syphilis, these increases have outpaced the increases in the level of STI testing, providing evidence for increasing transmission of these infections.

- Among non-Indigenous Australian-born heterosexual males under 21 years attending sexual health clinics for the first time, the proportion diagnosed with genital warts has also fallen from 11.2% in 2007 to 0.2% in 2018, a reduction of 98%, with an 87% decline since 2013 when male vaccination was added to the National Immunisation Program Schedule.

- Among Aboriginal and Torres Strait Islander peoples, rates of HIV, viral hepatitis and STIs remain disproportionately high when compared with non-Indigenous people. Due to the ongoing infectious syphilis outbreak across northern Australia, rates of infectious syphilis diagnoses have increased considerably from 31.2 per 100 000 population in 2014 to 101.2 per 100 000 in 2018. Gonorrhoea diagnosis rates are also continuing to climb (578.9 per 100 000 population in 2014 to 717.3 per 100 000 population in 2018). Diagnosis rates of chlamydia and hepatitis C have remained steady. However, rates of hepatitis B diagnosis are declining, due to the impact of universal vaccination (45.2 per 100 000 in 2014 to 27.0 per 100 000 in 2018). There have also been declines in the proportion of Aboriginal and/or Torres Strait Islander males and females presenting with genital warts at first visit at sexual health clinics. Males aged under 21 have shown an 81% reduction in genital warts diagnoses (from 7.2% to 1.4%), and females have shown an 84% reduction (from 6.4% to 1.0%).

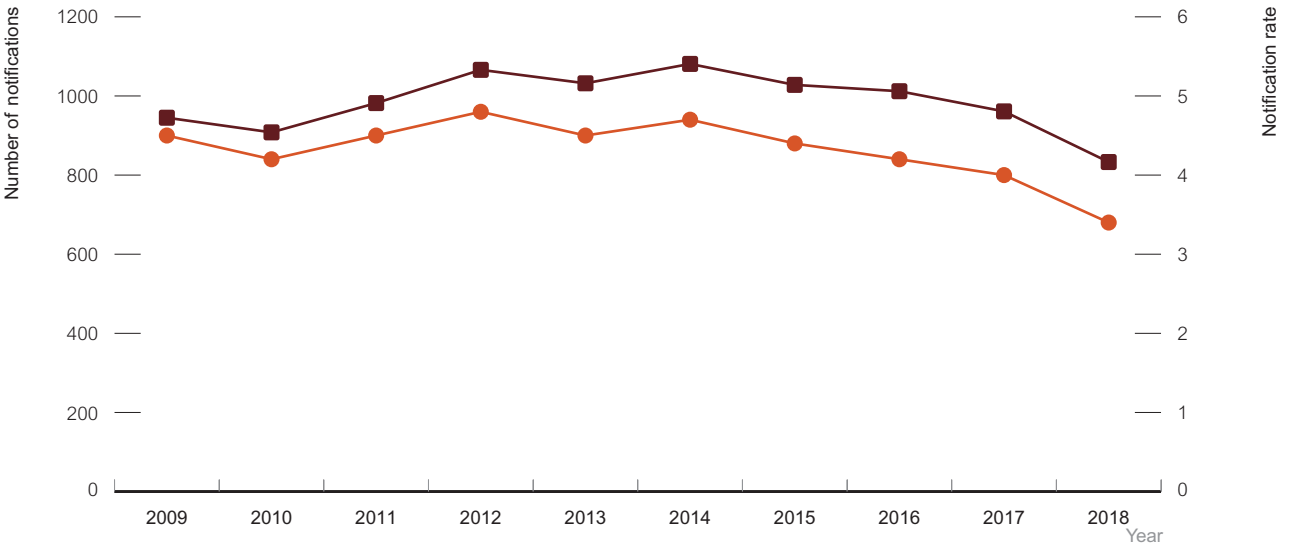
Please note all data are provisional and subject to change.

1 HIV

1.1 HIV notifications

- In 2018, there were 833 HIV notifications, down from 1081 in 2014, a reduction of 23%. Accordingly, the HIV notification rate fell from 4.7 per 100 000 in 2014 to 3.4 per 100 000 in 2018, a reduction of 28% (Figure 1.1.1)[1].
- By jurisdiction, New South Wales had the highest number of HIV notifications in 2018 (283 notifications,) followed by Victoria (258 notifications) then Queensland (180 notifications) (Table 1.1.1)[1].
- In terms of notification rates in 2018, Victoria had the highest HIV notification rate (4.0 per 100 000 population), followed by the Northern Territory (3.8 per 100 000 population) and then Queensland (3.7 per 100 000 population).

Figure 1.1.1 Number and age-standardised rate (per 100 000 population) of HIV notifications, 2009–2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of notifications	945	908	982	1066	1032	1081	1028	1012	961	833
Notification rate	4.5	4.2	4.5	4.8	4.5	4.7	4.4	4.2	4.0	3.4

Source: State and territory health authorities.

1 The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au

Table 1.1.1 Number and age-standardised rate (per 100 000 population) of HIV notifications, 2009–2018, by jurisdiction

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Aust
Year	Number of notifications (age-standardised rate per 100 000 population)								
2009	11 (3.1)	339 (5.0)	12 (5.1)	182 (4.3)	50 (3.3)	14 (3.1)	262 (4.9)	75 (3.4)	945 (4.5)
2010	13 (3.6)	310 (4.5)	5 (3.4)	209 (4.8)	34 (2.2)	9 (2.1)	236 (4.4)	92 (4.0)	908 (4.2)
2011	11 (2.7)	333 (4.8)	9 (3.9)	196 (4.5)	57 (3.8)	15 (3.3)	279 (5.0)	82 (3.5)	982 (4.5)
2012	17 (4.2)	408 (5.8)	20 (8.1)	208 (4.6)	31 (2.0)	13 (2.6)	267 (4.7)	102 (4.2)	1066 (4.8)
2013	21 (5.2)	355 (4.9)	13 (5.0)	181 (3.9)	58 (3.6)	11 (2.2)	307 (5.3)	86 (3.4)	1032 (4.5)
2014	18 (4.5)	345 (4.7)	8 (2.8)	246 (5.3)	39 (2.5)	16 (3.5)	301 (5.1)	108 (4.1)	1081 (4.7)
2015	14 (3.5)	348 (4.6)	9 (3.5)	203 (4.3)	44 (2.7)	17 (3.8)	284 (4.8)	109 (4.3)	1028 (4.4)
2016	13 (3.0)	317 (4.2)	23 (8.2)	195 (4.1)	42 (2.6)	19 (4.1)	310 (5.0)	92 (3.6)	1012 (4.2)
2017	13 (3.0)	310 (4.0)	11 (4.6)	185 (3.9)	45 (2.7)	11 (2.6)	309 (4.8)	79 (3.0)	961 (4.0)
2018	6 (1.3)	283 (3.6)	9 (3.8)	180 (3.7)	33 (1.8)	11 (2.2)	258 (4.0)	56 (2.1)	833 (3.4)

Source: State and territory health authorities.

1.2 HIV prevalence and incidence

- In 2018 HIV prevalence (the proportion of all people in Australia who are living with HIV), was estimated to be 0.14%, which is low compared with other relevant high-income and Asia-Pacific countries[1].
- The self-reported HIV prevalence among gay and bisexual men participating in the Gay Community Periodic Surveys was 8.1% in 2018[2].
- HIV prevalence among people who inject drugs attending needle and syringe programs was estimated to be 1.7% in 2018, and 0.7% if gay and bisexual men are excluded[3].
- The HIV incidence (the rate at which people are newly diagnosed with HIV) attending sexual health clinics in the ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance) network, reduced by 76% in the past five years (2014–2018) and was 0.21 per 100 person-years in 2018[4].

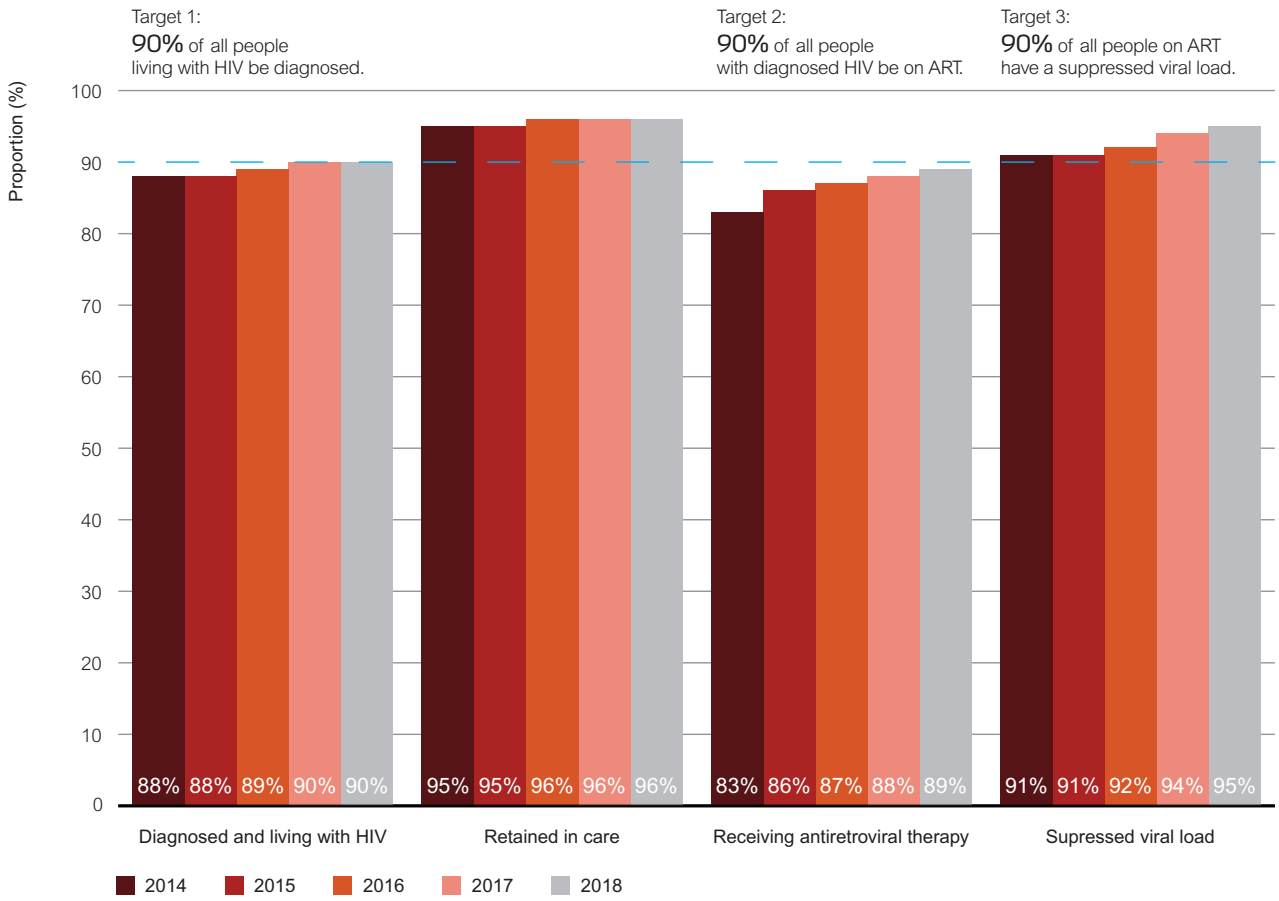
1.3 Testing and care

- UNAIDS has set targets for HIV diagnosis and treatment by the year 2020: 90% of all people living with HIV to be diagnosed, 90% of all people with diagnosed HIV to be on antiretroviral therapy, and 90% of all people receiving antiretroviral therapy to have suppressed viral load. This corresponds to 73% of all people living with HIV having suppressed viral load. UNAIDS also has set targets of 95% for each of the steps by 2030.
- There were an estimated 28 180 people living with HIV in Australia in 2018. Of those, an estimated 90% (25 490 people) were diagnosed. Of those diagnosed, 96% (24 530) were retained in care and 89% (22 760 people) were receiving antiretroviral therapy (ART). Of those receiving ART, 95% (21 710 people) had a suppressed viral load (less than 200 HIV-1 RNA copies/mL) (Figure 1.3.1)[1].
- There were an estimated 2 690 (10%) people living with HIV in Australia in 2018 who were unaware of their HIV status (undiagnosed). The estimated proportion with undiagnosed HIV was higher in people with reported risk exposures of injecting drug use (15%) and heterosexual sex (14%), and lower among men with male-to-male sex as their HIV risk exposure (8%). The estimated proportion with undiagnosed HIV was also higher among people born in Southeast Asia (27%), and among Aboriginal and Torres Strait Islander peoples (12%)[1].
- Among gay and bisexual men attending sexual health clinics in the ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance) network, the proportion who had a repeat HIV test within seven months of a previous test has risen by 32% within the past five years, from 46% in 2014 to 61% in 2018[4].

1 The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au
2 Gay Community Periodic Surveys
3 Australian Needle and Syringe Program Survey. For methodology details please see https://data.kirby.unsw.edu.au
4 ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance

Please note all data are provisional and subject to change.

Figure 1.3.1 HIV diagnosis and care cascade, 2014–2018



Source: The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au/

1.4 Prevention

- In 2018, according to the Gay Community Periodic Surveys, the majority (73%) of HIV-negative gay and bisexual men who had casual partners were regularly using strategies (avoiding anal sex, using condoms, or biomedical prevention), to protect themselves against acquiring HIV, and this proportion has remained stable over the past 10 years. Conversely, 27% were not consistently using any of these strategies[1].
- From the same survey, a greater proportion of HIV-negative gay and bisexual men who had casual partners reported using biomedical prevention strategies, including a substantial increase in use of pre-exposure prophylaxis (between 2015 (1%) and 2018 (21%)[1].
- On 1 April 2018, PrEP became available to eligible individuals on the pharmaceutical benefits scheme (PBS). By the end of 2018, 18 530 individuals were dispensed PBS subsidised PrEP[2].

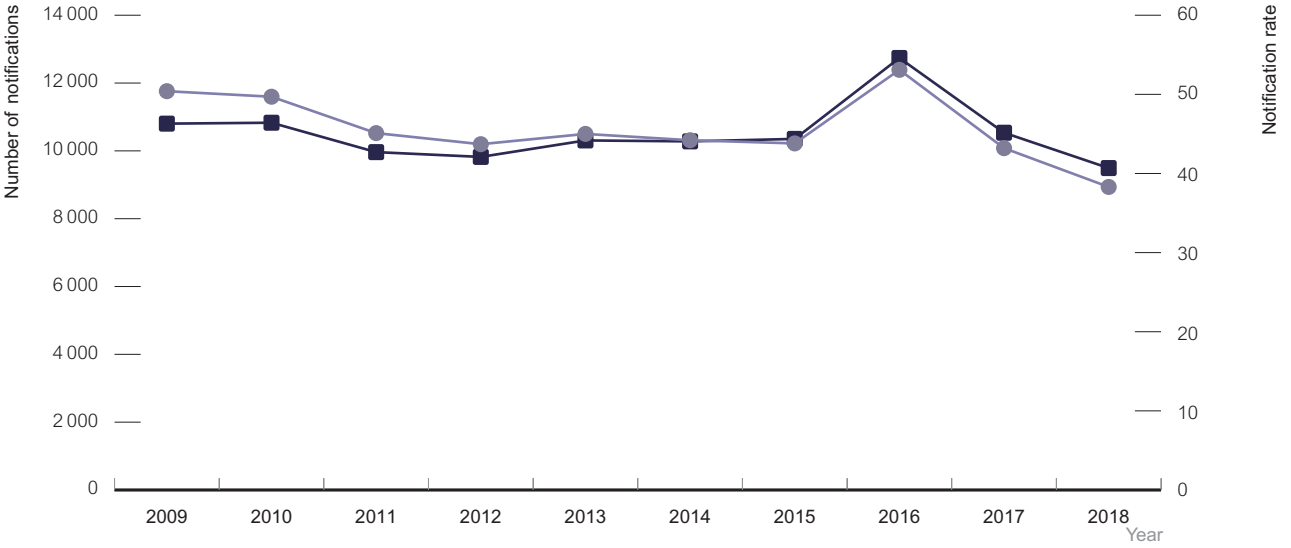
1 Gay Community Periodic Surveys
2 Pharmaceutical benefits scheme

2 Hepatitis C^

2.1 Hepatitis C notifications

- In 2018, there were 9493 hepatitis C notifications, a reduction of 8% from 10 353 in 2015. Accordingly, the hepatitis C notification rate fell from 43.8 per 100 000 in 2015 to 38.3 per 100 000 in 2018, a reduction of 13% (Figure 2.1.1) [11].
- By jurisdiction, New South Wales had the highest number of hepatitis C notifications in 2018 (3503 notifications) followed by Queensland (2163 notifications) then Victoria (1919 notifications) (Table 2.1.1) [1].
- In terms of notification rates in 2018, the Northern Territory had the highest hepatitis C notification rate (57.8 per 100 000 population), followed by Queensland (44.5 per 100 000 population) and then New South Wales (44.1 per 100 000 population) (Table 2.1.1)[1].

Figure 2.1.1 Number and age-standardised rate (per 100 000 population) of hepatitis C notifications, 2009–2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of notifications	10 803	10 830	9963	9822	10 308	10 280	10 353	12 739	10 535	9493
Notification rate	50.4	49.7	45.1	43.7	45.0	44.2	43.8	53.1	43.2	38.3

Source: National Notifiable Disease Surveillance System.

1 Australian National Notifiable Diseases Surveillance System

^ The years 2015 and 2018 are used for comparison to reflect the subsidised availability of Direct-acting Antiviral hepatitis C therapy since 2016

Please note all data are provisional and subject to change.

Table 2.1.1 Number and age-standardised rate (per 100 000 population) of hepatitis C notifications, 2009–2018, by jurisdiction

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Aust
Year	Number of notifications (age-standardised rate per 100 000 population)								
2009	163 (44.4)	3477 (49.8)	168 (70.9)	2605 (61.5)	597 (38.9)	281 (61.7)	2390 (44.7)	1122 (50.0)	10 803 (50.4)
2010	223 (59.1)	3509 (49.6)	169 (72.1)	2611 (60.6)	603 (38.8)	267 (57.3)	2401 (44.0)	1047 (45.5)	10 830 (49.7)
2011	188 (49.7)	3167 (44.4)	206 (83.7)	2366 (54.1)	603 (38.2)	229 (49.5)	2134 (38.6)	1070 (45.1)	9963 (45.1)
2012	145 (37.4)	3117 (43.2)	191 (76.1)	2333 (52.2)	576 (35.9)	262 (57.6)	2142 (38.0)	1056 (42.9)	9822 (43.7)
2013	183 (45.7)	3352 (45.7)	256 (98.3)	2437 (53.5)	609 (37.7)	228 (48.9)	2154 (37.3)	1089 (43.3)	10 308 (45.0)
2014	174 (42.8)	3303 (44.4)	180 (70.2)	2546 (55.3)	564 (34.7)	230 (49.4)	2160 (36.7)	1123 (43.8)	10 280 (44.2)
2015	188 (46.7)	3322 (43.7)	200 (80.2)	2522 (54.0)	531 (32.7)	263 (56.9)	2206 (36.6)	1121 (43.8)	10 353 (43.8)
2016	184 (44.4)	5162 (66.8)	194 (76.1)	2762 (58.5)	543 (33.1)	257 (54.4)	2435 (39.7)	1202 (46.9)	12 739 (53.1)
2017	138 (33.1)	4033 (51.6)	151 (57.9)	2362 (49.0)	496 (30.1)	231 (48.2)	1940 (30.8)	1184 (45.9)	10 535 (43.2)
2018	140 (33.3)	3503 (44.1)	147 (57.8)	2163 (44.5)	431 (25.6)	189 (38.5)	1919 (29.7)	1001 (38.8)	9493 (38.3)

Source: National Notifiable Disease Surveillance System.

2.2 Prevalence and morbidity

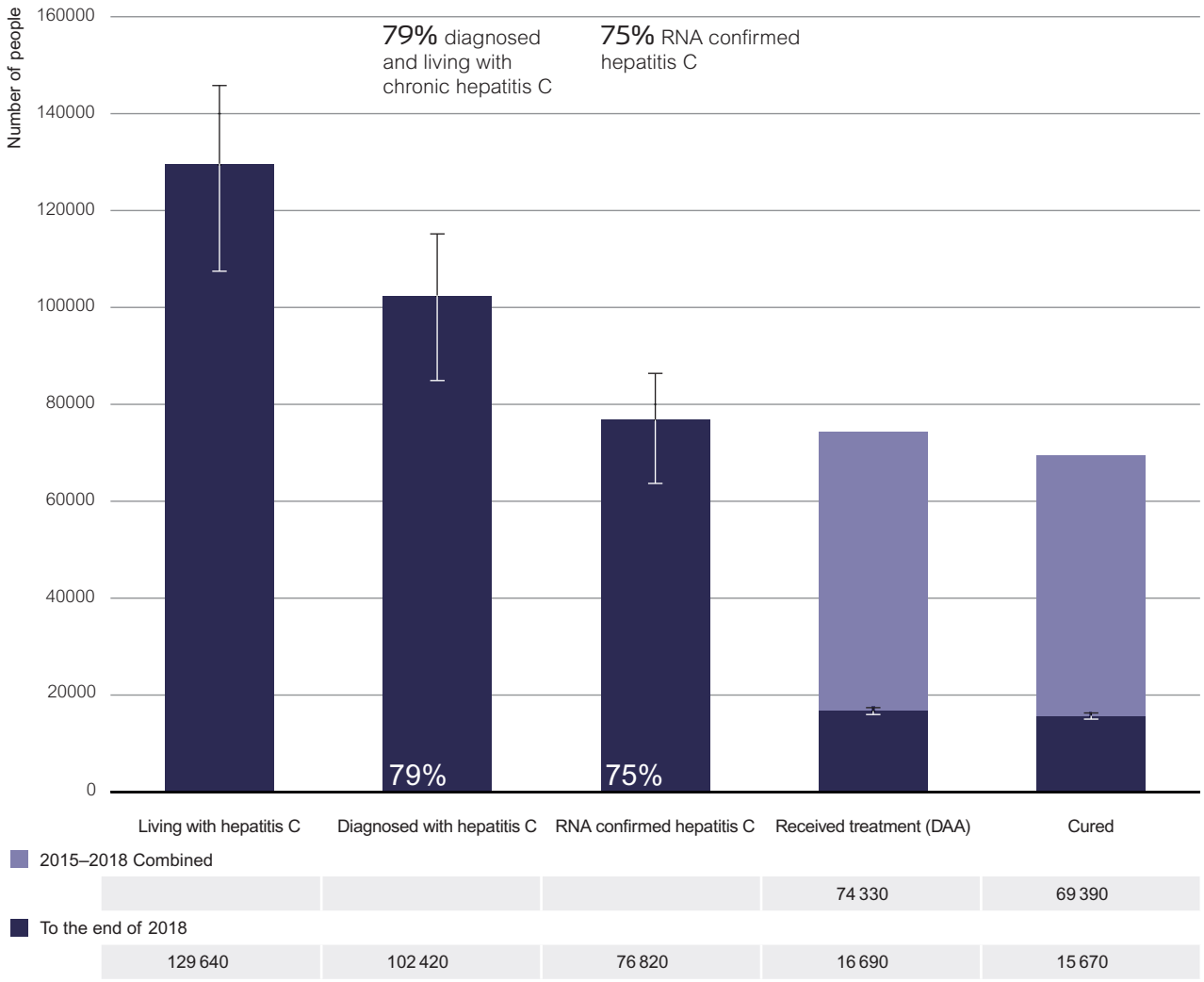
- The Australian Government has endorsed the World Health Organization targets of 90% of people living with chronic hepatitis C infection to be diagnosed, with 80% treatment coverage by 2030.
- At the start of 2018, there were an estimated 143 580 people living with chronic hepatitis C infection in Australia, reducing to an estimated 129 640 people at the end of 2018[21].
- Of the 129 640 people living with chronic hepatitis C at the end of 2018, an estimated 102 420 (79%) had been diagnosed, and 76 820 (75% of those diagnosed) had a hepatitis C RNA test to confirm their chronic hepatitis C infection[1].
- Hepatitis C RNA prevalence among people who inject drugs attending needle and syringe programs was 20% in 2018, a 61% decrease from 51% in 2015[2].
- There was a 55% increase in the estimated number of people living with hepatitis C and cirrhosis between 2009 and 2015 followed by a 64% decline from 2015 to 2018[1].
- The estimated number of deaths among people living with chronic hepatitis C increased by 61% from 460 deaths in 2009 to 740 deaths in 2015, then declined by 45% to 410 deaths in 2018[1].

2.3 Testing and care

- Since 2015, 74 330 eligible Australians have received hepatitis C treatment subsidised by the PBS. Of the estimated 143 580 people living with chronic hepatitis C at the start of 2018, 16 690 people (12%) received hepatitis C treatment during 2018 and 15 670 (94% of those treated) were cured (Figure 2.1.1)[1].
- A higher proportion of people with hepatitis C related cirrhosis (stage F4) at the start of 2018 were estimated to have gone on to receive treatment in 2018 (42%) compared with 9-12% with early-to-moderate fibrosis (stage F0–F2) and 7% with moderate fibrosis (F3)[1].
- Among participants in the Australian Needle and Syringe Program Survey in 2018 with self-reported chronic hepatitis C, 55% reported ever having received hepatitis C treatment, an increase from 11% in 2015. Among Aboriginal and Torres Strait Islander respondents in the Australian Needle and Syringe Program Survey who reported hepatitis C treatment, there was more than a 300% relative increase in the number reporting ever having treatment, from 10% in 2015 to 46% in 2018. Among non-Indigenous participants, there was close to a 400% relative increase the number reporting ever having received treatment, from 11% to 58%[2].

1 The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au/
2 Australian Needle and Syringe Program Survey. For methodology details please see https://data.kirby.unsw.edu.au/

Figure 2.3.1 The hepatitis C diagnosis and care cascade, 2018



Note: For 'Received treatment (DAA)' and 'Cured', the top of the bar represents the cumulative number for the years 2015–2018.
Source: The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au/.

2.4 Injecting risk behaviour

- The reuse of needles and syringes that have been used by others (receptive syringe sharing) by people who inject drugs is a major risk factor for transmission of hepatitis C. The proportion of Australian Needle and Syringe Program Survey respondents who reported receptive syringe sharing in the past month was 18% in 2018 with receptive syringe sharing higher among Aboriginal and/or Torres Strait Islander survey participants (30%) than among non-Indigenous participants (16%)[1]

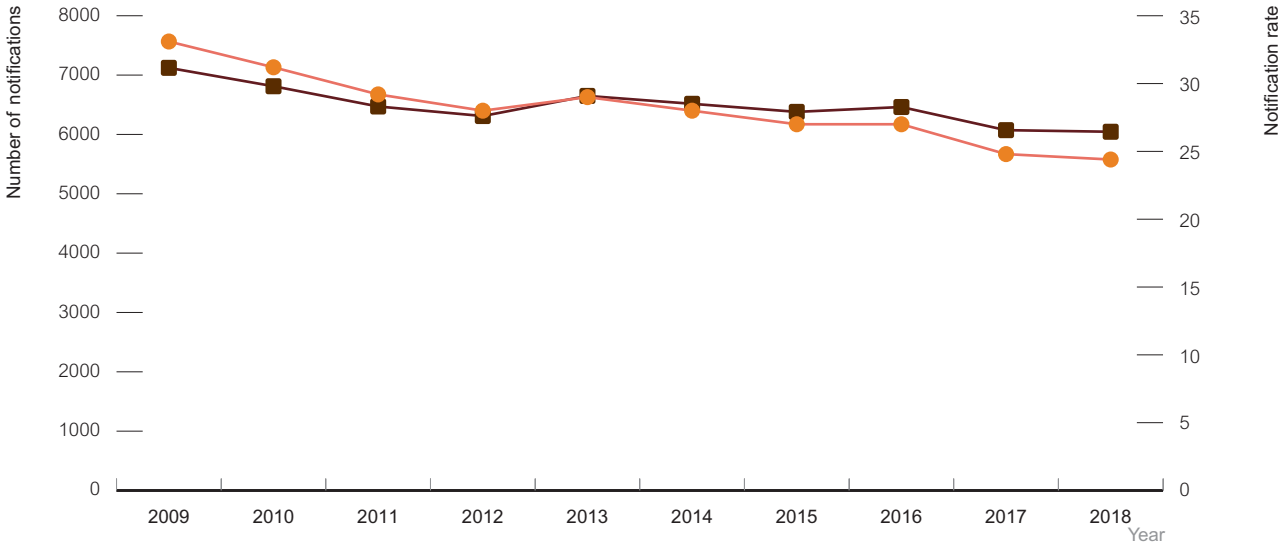
1 Australian Needle and Syringe Program Survey. For methodology details please see https://data.kirby.unsw.edu.au/

3 Hepatitis B

3.1 Hepatitis B notifications

- In 2018, there were 6045 hepatitis B notifications, down from 6516 in 2014, a reduction of 7%. Accordingly, the hepatitis B notification rate fell from 28.0 in 2014 to 24.4 in 2018, a reduction of 13% (Figure 3.1.1)[1].
- By jurisdiction, New South Wales had the highest number of hepatitis B notifications in 2018 (2414 notifications) followed by Victoria (1754 notifications,) then Queensland (869 notifications) (Table 3.1.1) [1].
- In terms of notification rates, the Northern Territory had the highest hepatitis B notification rate (32.7 per 100 000 population), followed by New South Wales (30.2 per 100 000 population) and then Victoria (27.0 per 100 000 population) (Table 3.1.1)[1]

Figure 3.1.1 Number and age-standardised rate (per 100 000 population) of hepatitis B notifications, 2009–2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of notifications	7122	6812	6471	6310	6649	6516	6380	6462	6072	6045
Notification rate	33.1	31.2	29.2	28.0	29.0	28.0	27.0	27.0	24.8	24.4

Source: National Notifiable Disease Surveillance System.

1 Australian National Notifiable Diseases Surveillance System

Table 3.1.1 Number and age-standardised rate (per 100 000 population) of hepatitis B notifications, 2009–2018, by jurisdiction

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Aust
Year	Number of notifications (age-standardised rate per 100 000 population)								
2009	108 (28.6)	2752 (39.5)	161 (71.9)	973 (22.9)	461 (29.5)	84 (18.9)	1944 (36.0)	639 (28.6)	7122 (33.1)
2010	95 (25.9)	2553 (36.2)	161 (68.9)	1029 (23.8)	437 (27.9)	55 (12.1)	1875 (34.0)	607 (26.4)	6812 (31.2)
2011	94 (23.9)	2471 (34.6)	152 (67.6)	818 (18.7)	427 (27.5)	51 (11.5)	1895 (33.8)	563 (23.6)	6471 (29.2)
2012	107 (26.7)	2299 (31.9)	196 (79.5)	788 (17.7)	402 (25.2)	71 (15.8)	1856 (32.6)	591 (24.1)	6310 (28.0)
2013	112 (27.1)	2485 (33.9)	331 (128.1)	868 (19.1)	331 (20.9)	58 (12.6)	1852 (31.9)	612 (24.2)	6649 (29.0)
2014	97 (23.9)	2494 (33.6)	153 (63.0)	946 (20.6)	371 (23.2)	60 (13.4)	1773 (29.9)	622 (24.6)	6516 (28.0)
2015	83 (19.8)	2341 (30.9)	161 (62.2)	1040 (22.4)	342 (21.3)	41 (9.4)	1800 (29.6)	572 (22.3)	6380 (27.0)
2016	91 (21.2)	2353 (30.6)	109 (43.1)	1060 (22.5)	318 (19.8)	40 (8.8)	1825 (29.6)	666 (26.0)	6462 (27.0)
2017	86 (20.3)	2298 (29.3)	101 (41.1)	914 (19.1)	301 (18.1)	43 (9.3)	1778 (27.9)	551 (21.4)	6072 (24.8)
2018	86 (19.8)	2414 (30.2)	85 (32.7)	869 (17.9)	272 (16.6)	43 (9.6)	1754 (27.0)	522 (20.1)	6045 (24.4)

Source: National Notifiable Disease Surveillance System.

3.2 Prevalence and morbidity

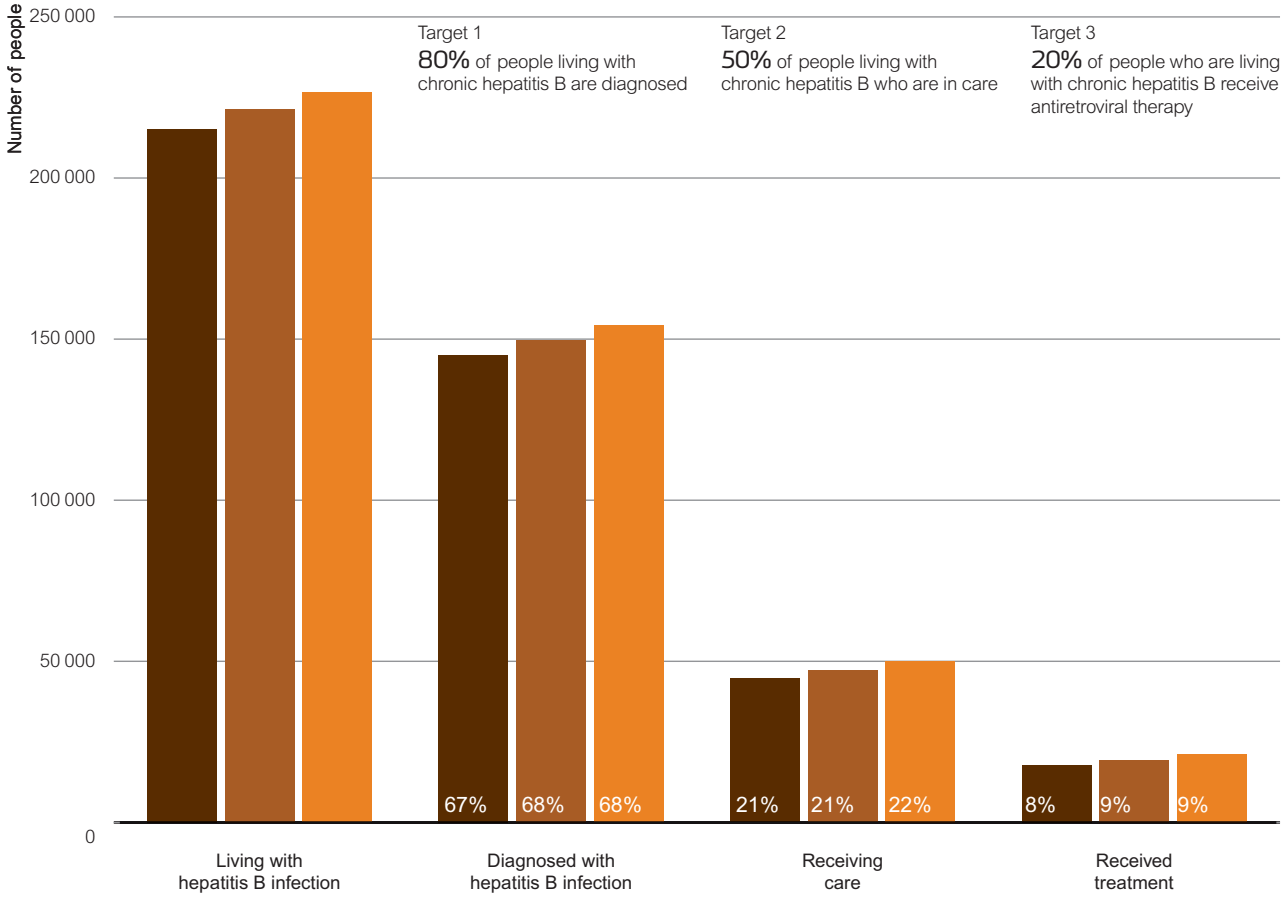
- There were an estimated 226 566 people living with chronic hepatitis B in Australia in 2018 (Figure 3.3.1), of whom an estimated 157 927 people (70%) were born overseas, 52 211 (23%) people were Australian-born non-Indigenous people and 16 428 (7%) people were Aboriginal and/or Torres Strait Islander people[1]. There has been a decline in chronic hepatitis B prevalence among people below 40 years of age among both Australian and overseas born people largely due to the success of hepatitis B immunisation programs, in Australia, and overseas.
- The estimated chronic hepatitis B prevalence was 6.7% among people living in Australia who were born in Northeast Asia, 5.1% among people born in Southeast Asia, 2.1% among Aboriginal and/or Torres Strait Islander people, and 3.0% among gay and bisexual men, with overlaps in some of these categories[1].
- An estimated 435 deaths attributable to chronic hepatitis B infection occurred in 2018[1].

3.3 Testing and care

- In 2018 an estimated 68% (154 246) of people living with chronic hepatitis B in Australia had been diagnosed (Figure 3.3.1). Australia's Third National Hepatitis B Strategy (2018–2022) has a target of 80% of people living with chronic hepatitis B having been diagnosed[1].
- In 2018, an estimated 22% (49 971) of those living with chronic hepatitis B were receiving regular clinical care (Figure 3.3.1). Best practice indicates that all people diagnosed with chronic hepatitis B require regular monitoring to assess the stage and progression of their liver disease and to facilitate the commencement of treatment as needed[1].
- Treatment for hepatitis B is recommended for people with elevated hepatitis B viral load and abnormal liver function tests, or those who have advanced liver disease (cirrhosis), and Australia's Third National Hepatitis B Strategy (2018–2022) has a target of 20% of people living with chronic hepatitis B on treatment. In 2018 only 9% (21 135) of people living with chronic hepatitis B were estimated to be receiving antiviral therapy[2] (Figure 3.3.1).

1 WHO Collaborating Centre for Viral Hepatitis, Doherty Institute; https://www.doherty.edu.au/whoccvh/centre-activities/research/blood-borne-viruses-and-sexually-transmissible-infections-surveillance-and-research-programme

Figure 3.3.1 The hepatitis B diagnosis and care cascade, 2016–2018



	Living with hepatitis B infection	Diagnosed with hepatitis B infection	Receiving care	Received treatment
2016	215 264	145 015	44 668	17 698
2017	221 420	149 736	47 161	19 358
2018	226 566	154 246	49 971	21 135

Note: Due to updated modelling methods, estimates may be different from figures presented in previous years of reporting.

Source: WHO Collaborating Centre for Viral Hepatitis, Doherty Institute; https://www.doherty.edu.au/whoccvh/centre-activities/research/blood-borne-viruses-and-sexually-transmissible-infections-surveillance-and-research-programme.

3.4 Prevention

- Vaccination is the core strategy for primary prevention of hepatitis B, and Australia has universal infant and adolescent (11-15-year-olds) programs, as well as vaccination for risk groups[1].
- In 2018 coverage of infant hepatitis B vaccination at 12 months of age was 95.6% among the Aboriginal and/or Torres Strait Islander population and 95.5% among the non-Indigenous population, reaching 97.1% and 95.8% respectively by 24 months of age[2] (See Section 5.3, Figure 5.3.2).

1 https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/hepatitis-b
2 National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases

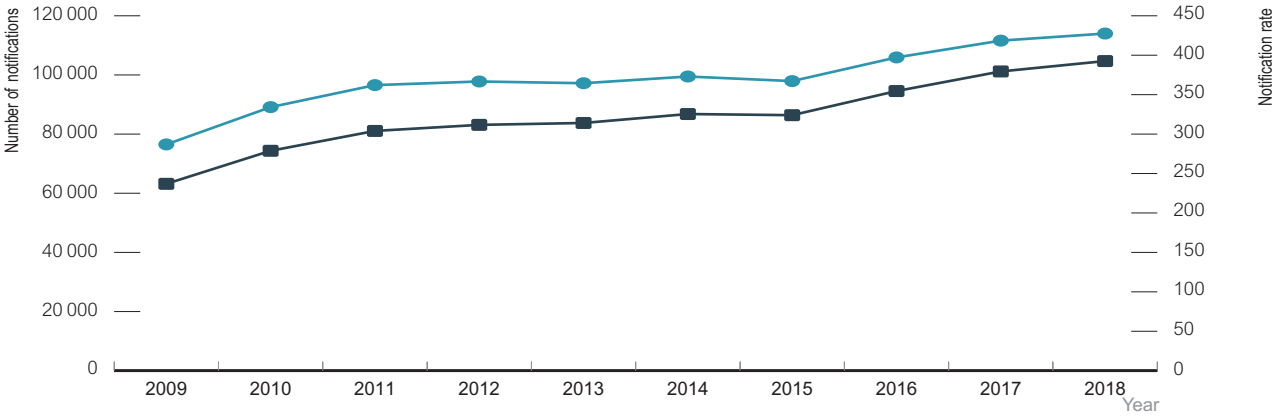
4 Sexually transmissible infections

4.1 Chlamydia

Chlamydia notifications

- In 2018, there were 104 691 chlamydia notifications, up from 86 783 in 2014, an increase of 21%. Accordingly, the chlamydia notification rate increased from 373.0 in 2014 to 427.5 in 2018, an increase of 15% (Figure 4.1.1)[1].
- By jurisdiction, New South Wales had the highest number of chlamydia notifications in Australia (31 109 notifications) followed by Victoria (36 117 notifications) then Queensland (23 782 notifications) (Table 4.1.1)[1].
- In terms of notification rates, the Northern Territory had the highest chlamydia notification rate (1087.8 per 100 000 population), followed by Queensland (492.4 per 100 000 population) and then Western Australia (464.8 per 100 000 population) (Table 4.1.1)[1].

Figure 4.1.1 Number and age-standardised rate (per 100 000 population) of chlamydia notifications, 2009–2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of notifications	63 183	74 354	81 068	83 118	83 760	86 783	86 395	94 552	101 183	104 691
Notification rate	286.9	334.2	362.1	366.7	364.5	373.0	367.2	397.2	418.5	427.5

Source: National Notifiable Disease Surveillance System.

Table 4.1.1 Number and age standardised rate (per 100 000 population) of chlamydia notifications, 2009–2018

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Aust
Year	Number of notifications (age-standardised rate per 100 000 population)								
2009	951(227.0)	14 948 (213.5)	2446 (943.1)	16 690 (379.4)	3850 (246.1)	1466 (312.7)	14 011 (250.2)	8821 (377.6)	63 183 (377.6)
2010	1161 (271.0)	18 228 (258.8)	2662 (1014.2)	19 211 (430.5)	4401 (278.2)	2008 (426.4)	16 531 (291.9)	10 152 (428.4)	74 354 (428.4)
2011	1261 (292.1)	20 577 (292.0)	2629 (1011.7)	18 638 (413.6)	5267 (331.4)	1776 (380.9)	19 270 (338.7)	11 650 (479.6)	81 068 (479.6)
2012	1283 (292.8)	21 314 (300.6)	2722 (1031.3)	18 830 (410.8)	5066 (318.1)	1781 (383.2)	20 357 (352.9)	11 765 (470.2)	83 118 (470.2)
2013	1270 (292.6)	20 833 (289.9)	3004 (1112.4)	20 325 (437.7)	5531 (346.1)	1538 (335.6)	19 542 (333.1)	11 717 (459.4)	83 760 (459.4)
2014	1196 (270.7)	22 926 (314.2)	2997 (1127.7)	21 133 (450.4)	5494 (342.1)	1776 (387.9)	19 926 (332.0)	11 335 (443.3)	86 783 (443.3)
2015	1266 (287.9)	22 594 (304.9)	2737 (1028.4)	21 183 (450.3)	5384 (334.4)	1666 (368.9)	20 398 (332.0)	11 167 (438.5)	86 395 (438.5)
2016	1362 (306.7)	26 042 (345.9)	2631 (1014.9)	22 754 (481.1)	5483 (340.7)	1688 (375.6)	22 787 (361.6)	11 805 (467.2)	94 552 (467.2)
2017	1465 (325.8)	29 001 (377.5)	2667 (1030.2)	23 809 (497.5)	5913 (367.6)	1582 (348.2)	25 252 (389.7)	11 494 (460.5)	101 183 (460.5)
2018	1578 (344.5)	31 109 (398.4)	2779 (1087.8)	23 782 (492.4)	6249 (388.1)	1560 (339.9)	26 117 (393.5)	11 517 (464.8)	104 691 (464.8)

Source: National Notifiable Disease Surveillance System.

1 Australian National Notifiable Diseases Surveillance System

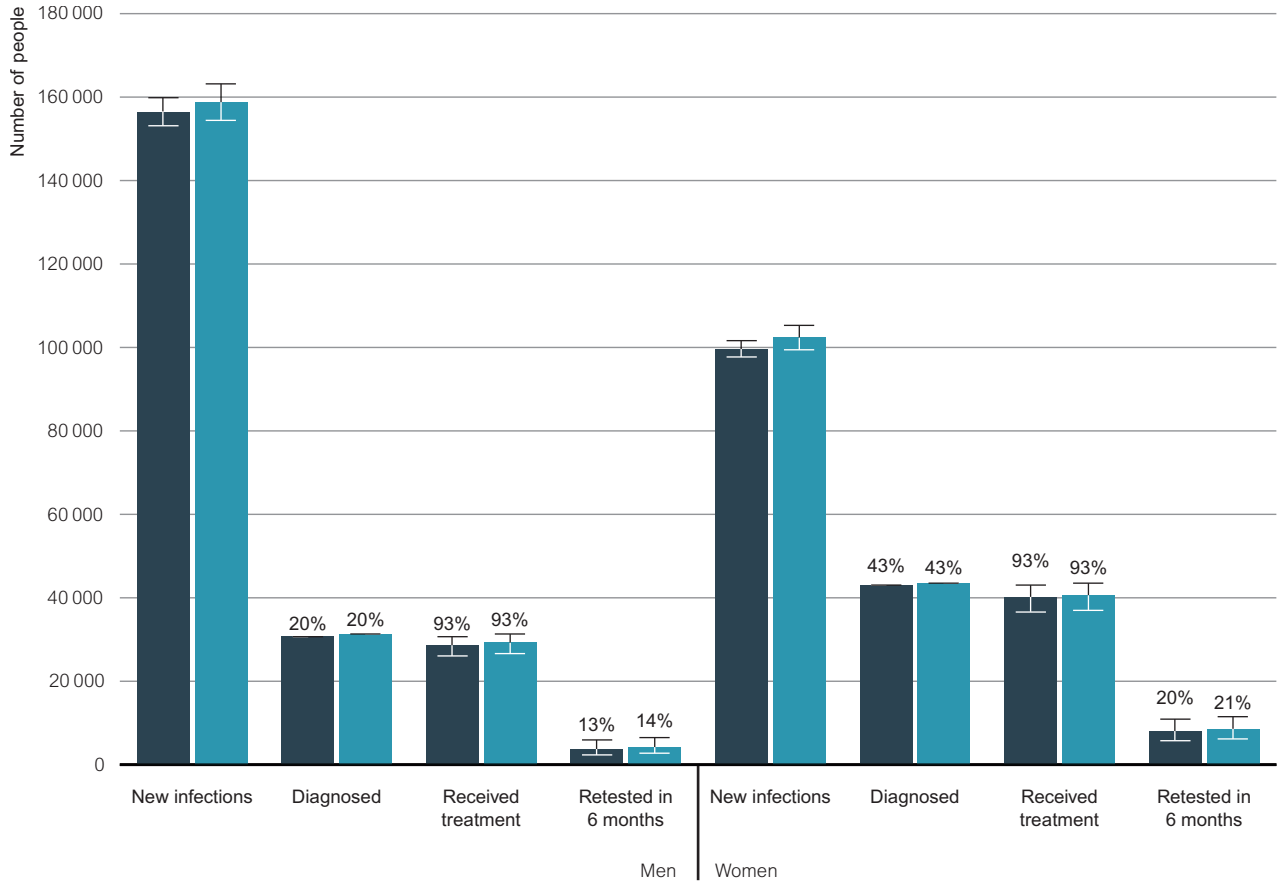
Incidence

- In 2018, chlamydia incidence among HIV-positive gay and bisexual men (36.4 per 100 person-years) was 1.5 times as high as among HIV-negative gay and bisexual men (24.6 per 100 person-years), with a 15% increase in HIV-positive gay and bisexual men and 33% increase in HIV-negative gay and bisexual men since 2014[1].
- Among female sex workers, chlamydia incidence increased by 26% between 2014 and 2018 (from 9.7 to 12.2 per 100 person-years)[2].

Testing and care

- In 2018, there were an estimated 261 150 (158 790 in men, 102 360 in women) new chlamydia infections in people aged 15–29 years. Of those, an estimated 74 850 (29%, 20% men, 43% women) were diagnosed, 69 870 (93% of those diagnosed, 93% for both men and women) received treatment, and 12 810 (18% of those treated, 14% men, 21% women) had a retest between six weeks and six months after diagnosis (Figure 4.1.2)[2].
- The number of Medicare-rebated chlamydia tests in Australia has almost doubled from 725 326 in 2009 to 1 542 884 in 2018[2].
- The amount of testing in a population can influence notification trends. Between 2014 and 2018, the number of chlamydia notifications per 100 Medicare-rebated chlamydia tests declined by 8% suggesting the notification trends observed are influenced by increased testing[2].

Figure 4.1.2 The chlamydia diagnosis and care cascade in people aged 15–29 years, 2017–2018, by sex



	New infections	Diagnosed	Received treatment	Retested in 6 months	New infections	Diagnosed	Received treatment	Retested in 6 months
2017	156 490	30 680	28 640	3750	99 670	43 050	40 190	8080
2018	158 790	31 330	29 250	4230	102 360	43 510	40 620	8590

Source: The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au/.

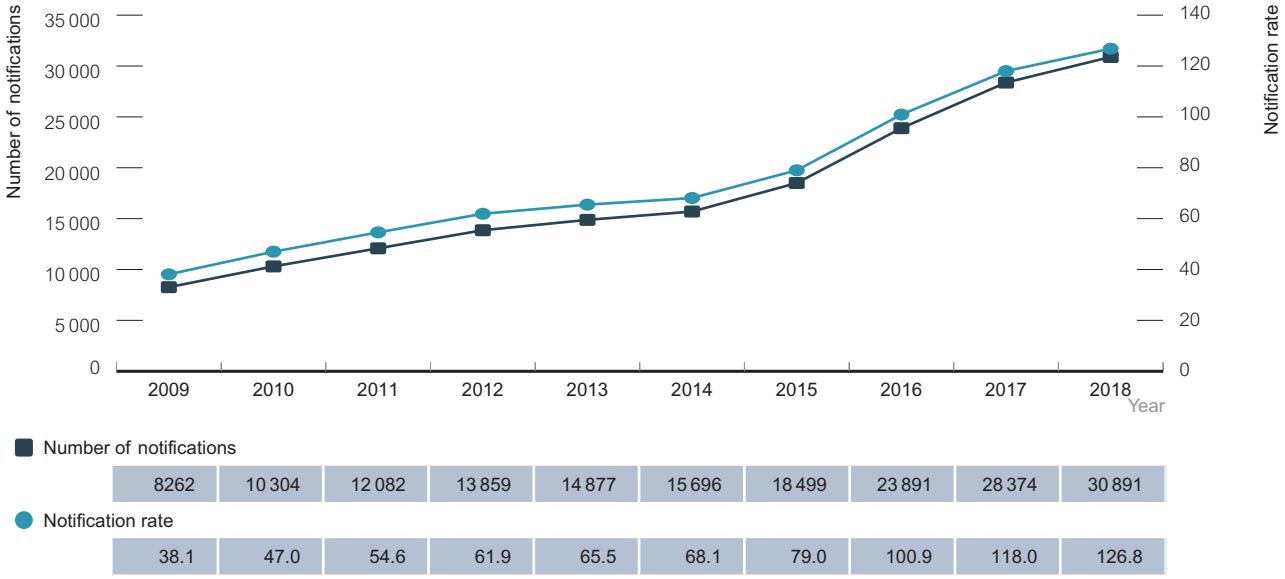
1 Australian National Notifiable Diseases Surveillance System
2 The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au/

4.2 Gonorrhoea

Gonorrhoea notifications

- In 2018, there were 30 891 gonorrhoea notifications, up from 15 696 in 2014, an increase of 97%. Accordingly, the gonorrhoea notification rate increased from 68.1 in 2014 to 126.8 in 2018, an increase of 86% (Figure 4.2.1)[1].
- By jurisdiction, New South Wales had the highest number of gonorrhoea notifications in 2018 (10 556 notifications) followed by Victoria (8118 notifications) then Queensland (4902 notifications) (Table 4.2.1)[1].
- In terms of notification rates, the Northern Territory had the highest gonorrhoea notification rate (832.2 per 100 000 population), followed by Western Australia (135.9 per 100 000 population) and then New South Wales (135.4 per 100 000 population) (Table 4.2.1)[1].

Figure 4.2.1 Number and age-standardised rate (per 100 000 population) of gonorrhoea notifications, 2009–2018



Source: National Notifiable Disease Surveillance System.

Table 4.2.1 Number and age-standardised rate (per 100 000 population) of gonorrhoea notifications, 2009–2018, by jurisdiction

Year	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Aust
	Number of notifications (age-standardised rate per 100 000 population)								
2009	55 (13.4)	1652 (23.8)	1551 (604.5)	1785 (40.9)	368 (24.2)	21 (4.8)	1491 (27.2)	1339 (58.1)	8262 (38.1)
2010	56 (13.8)	2301 (32.9)	1933 (746.3)	2384 (53.9)	470 (30.3)	20 (4.2)	1755 (31.6)	1385 (59.2)	10 304 (47.0)
2011	128 (30.8)	2881 (41.0)	1952 (760.9)	2947 (66.2)	440 (28.3)	19 (4.0)	1885 (33.5)	1830 (75.8)	12 082 (54.6)
2012	92 (21.9)	4127 (58.4)	1822 (701.2)	2690 (59.4)	543 (34.6)	35 (7.5)	2463 (43.0)	2087 (85.0)	13 859 (61.9)
2013	114 (26.8)	4225 (58.9)	1955 (739.9)	2728 (59.3)	807 (51.0)	69 (15.2)	3030 (52.1)	1949 (78.1)	14 877 (65.5)
2014	120 (27.8)	4854 (66.7)	1742 (666.8)	2723 (58.8)	736 (46.7)	65 (14.7)	3262 (54.4)	2194 (86.3)	15 696 (68.1)
2015	141 (32.4)	5442 (73.7)	1829 (709.5)	3032 (64.9)	794 (5.0)	56 (12.6)	4899 (79.5)	2306 (90.4)	18 499 (79.0)
2016	201 (45.1)	7012 (93.4)	1769 (700.0)	4031 (86.1)	1110 (69.6)	82 (18.3)	6325 (100.5)	3361 (133.0)	23 891 (100.9)
2017	250 (55.8)	9215 (120.2)	1755 (685.9)	5078 (106.9)	1272 (79.9)	117 (26.2)	7344 (114.5)	3343 (133.6)	28 374 (118.0)
2018	330 (72.3)	10 556 (135.4)	2130 (832.2)	4902 (102.1)	1291 (81.0)	149 (32.0)	8118 (123.5)	3415 (135.9)	30 891 (126.8)

Source: National Notifiable Disease Surveillance System.

1 Australian National Notifiable Diseases Surveillance System

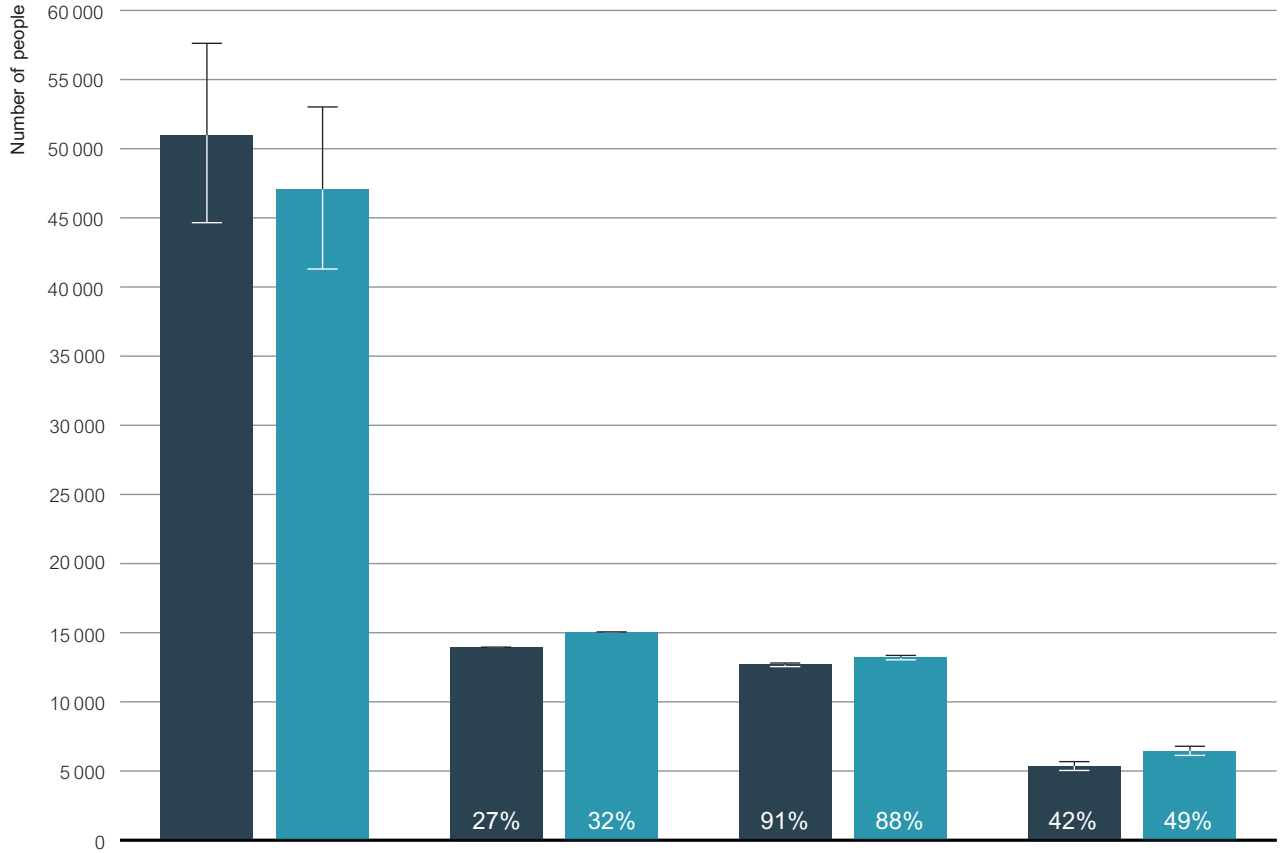
Incidence

- In 2018, the gonorrhoea incidence rate among HIV-positive gay and bisexual men (33.8 per 100 person-years) was 39% higher than in HIV-negative gay and bisexual men (24.3 per 100 person-years)[1].
- Among female sex workers, the incidence of gonorrhoea increased by 142%, from 4.3 per 100 person-years in 2014, to 10.4 per 100 person-years in 2018[1].

Testing and care

- In 2018, there were an estimated 47 030 new gonorrhoea infections among gay and bisexual men. Of those, an estimated 15 060 (32%) were diagnosed, 13 200 (88%) received treatment, and 6460 (49%) had a retest between six weeks and six months after diagnosis (Figure 4.2.2)[1].
- Results from the Gay Community Periodic Surveys show comprehensive STI testing, defined as at least four samples from separate body sites, in the past 12 months among gay and bisexual men increased from 36.6% in 2009 to 53.1% in 2018[2].
- Between 2012 and 2018, the number of gonorrhoea notifications per 100 Medicare-rebated gonorrhoea tests increased by 52% (from 1.3 to 2.0), with increases in both males (35%) and females (60%). These data suggest that the increases observed in notifications cannot be fully explained by more testing. The ratio was higher in males (4.4 in 2018) in each of the past five years than in females (0.8 in 2018)[3].

Figure 4.2.2 The gonorrhoea diagnosis and care cascade in gay and bisexual men, 2017–2018



	New infections	Diagnosed	Received treatment	Retested
2017	50 970	13 960	12 690	5360
2018	47 030	15 060	13 200	6460

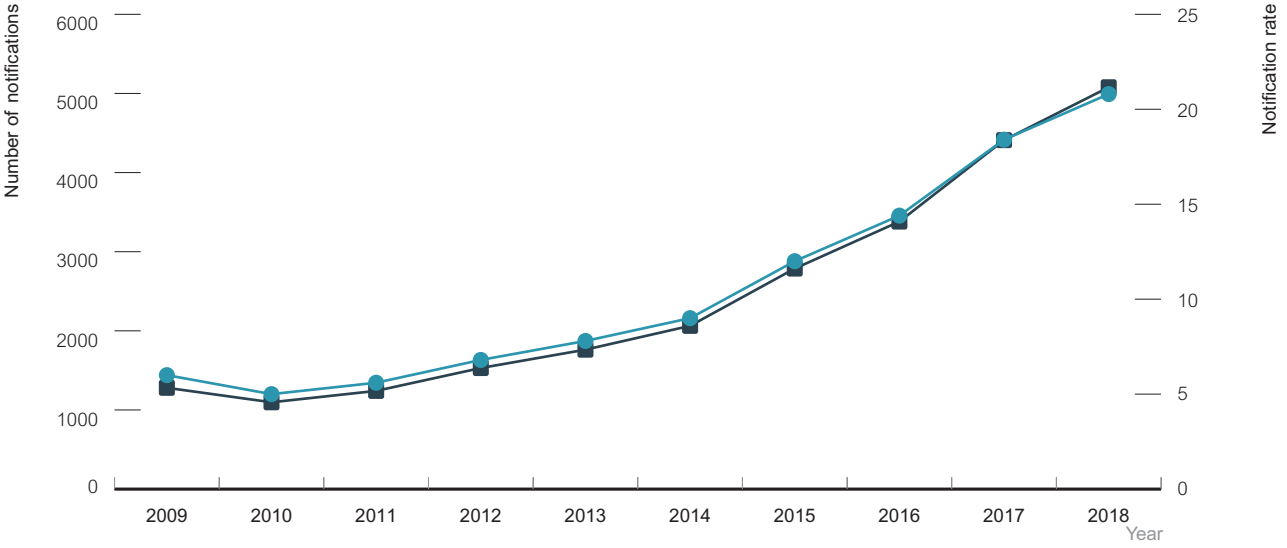
Source: See Methodology for further details of mathematical modelling used to generate estimates.

1 The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au/
2 Gay Community Periodic Surveys
3 ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance

Please note all data are provisional and subject to change.

4.3 Infectious Syphilis

Figure 4.3.1 Number and age-standardised rate (per 100 000 population) of infectious syphilis notifications, 2009–2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of notifications	1280	1097	1241	1530	1762	2063	2787	3381	4410	5078
Notification rate	6.0	5.0	5.6	6.8	7.8	9.0	12.0	14.4	18.4	20.8

Source: National Notifiable Disease Surveillance System.

Table 4.3.1 Number and age-standardised rate (per 100 000 population) of infectious syphilis notifications by jurisdiction, 2009–2018

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Aust
Year	Number of notifications (age-standardised rate per 100 000 population)								
2009	11 (2.9)	519 (7.6)	38 (15.4)	193 (4.5)	37 (2.3)	10 (2.2)	389 (7.1)	83 (3.6)	1280 (6.0)
2010	14 (3.7)	403 (5.8)	43 (17.1)	229 (5.3)	22 (1.3)	6 (1.3)	299 (5.4)	81 (3.5)	1097 (5.0)
2011	10 (2.6)	388 (5.6)	30 (11.9)	337 (7.6)	18 (1.1)	6 (1.4)	332 (5.9)	120 (5.0)	1241 (5.6)
2012	15 (3.7)	501 (7.0)	14 (5.2)	390 (8.7)	45 (2.9)	14 (3.0)	475 (8.3)	76 (3.1)	1530 (6.8)
2013	10 (2.3)	608 (8.5)	23 (9.4)	336 (7.4)	41 (2.6)	21 (4.6)	640 (11.2)	83 (3.3)	1762 (7.8)
2014	18 (4.1)	786 (10.8)	72 (29.0)	396 (8.6)	29 (1.9)	16 (3.5)	653 (11.2)	93 (3.7)	2063 (9.0)
2015	14 (3.3)	752 (10.2)	206 (81.3)	575 (12.3)	115 (7.0)	17 (3.7)	946 (15.8)	162 (6.3)	2787 (12.0)
2016	13 (3.0)	878 (11.7)	230 (91.1)	683 (14.5)	86 (5.3)	6 (1.2)	1149 (18.7)	336 (13.4)	3381 (14.4)
2017	33 (7.7)	1118 (14.6)	322 (126.6)	1083 (22.8)	163 (9.9)	10 (1.8)	1360 (21.5)	321 (12.7)	4410 (18.4)
2018	54 (12.0)	1534 (19.6)	350 (135.8)	1127 (23.4)	202 (12.2)	8 (1.4)	1378 (21.2)	425 (16.8)	5078 (20.8)

Source: National Notifiable Disease Surveillance System.

Please note all data are provisional and subject to change.

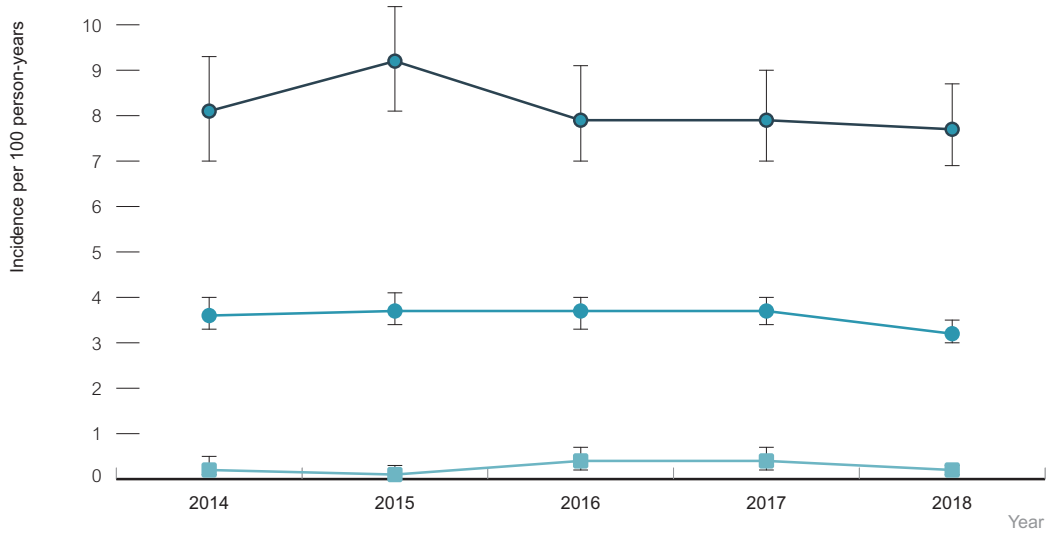
Infectious syphilis notifications

- In 2018, there were 5078 infectious syphilis notifications, up from 2063 in 2014, an increase of 146%. Accordingly, the infectious syphilis notification rate increased from 9.0 in 2014 to 20.8 in 2018, an increase of 131% (Figure 4.3.1)[1]. There is an ongoing infectious syphilis outbreak across remote and regional Australia among Aboriginal and Torres Strait Islander heterosexuals. See Section 5.6 for data relating to the outbreak in the Aboriginal and Torres Strait Islander population and comparisons between the Aboriginal and Torres Strait Islander and non-Indigenous populations.
- In 2018, there were 4330 infectious syphilis notifications among males, and 725 among females, suggesting transmission is predominantly due to male-to-male sexual contact. However, between 2014 and 2019, there has been an increase in notifications among women of over 300% (from 165 to 725 notifications), suggesting increasing heterosexual transmission (data not shown)[1].
- By jurisdiction, New South Wales had the highest number of infectious syphilis notifications in 2018 (1534 notifications) followed by Victoria (1378 notifications) then Queensland (1127 notifications) (Table 4.3.1)[1].
- In terms of notification rates, the Northern Territory had the highest infectious syphilis notification rate (81.3 per 100 000 population), followed by Victoria (15.8 per 100 000 population) and then Queensland (12.3 per 100 000 population) (Table 4.3.1)[1].
- Between 2009 and 2018 there were 46 cases of congenital syphilis notified in Australia with eight cases notified in 2018.

Incidence

- In 2018, the incidence of infectious syphilis among HIV-positive gay and bisexual men attending sexual health clinics was 7.7 per 100 person-years, 2.4 times as high as the 3.2 per 100 person-years in HIV-negative gay and bisexual men. Between 2014 and 2018, the incidence of infectious syphilis fluctuated among both HIV-negative men (between 3.7 and 3.2 per 100 person-years) and HIV-positive men (between 7.9 and 9.2 per 100 person-years) (Figure 4.3.2)[2].
- In 2018, the incidence of infectious syphilis among female sex workers was 0.2 per 100 person-years, and fluctuated between 0.1 and 0.4 per 100 person-years over the past five years (2014–2018) (Figure 4.3.2)[2].

Figure 4.3.2 Infectious syphilis incidence in sexual health clinic attendees, 2014–2018, by population



	2014	2015	2016	2017	2018
HIV-negative gay and bisexual men	3.6	3.7	3.7	3.7	3.2
HIV-positive gay and bisexual men	8.1	9.2	7.9	7.9	7.7
Female sex workers	0.2	0.1	0.4	0.4	0.2

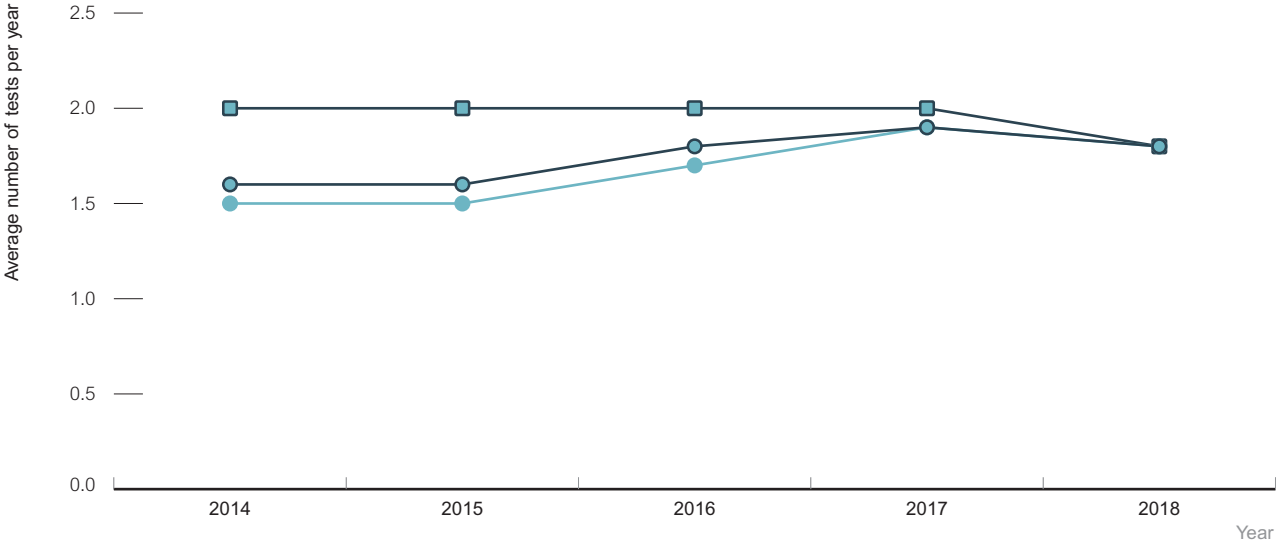
Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance).

1 Australian National Notifiable Diseases Surveillance System
2 The Kirby Institute. For methodology details please see https://data.kirby.unsw.edu.au/

Testing and care

- Among gay and bisexual men attending sexual health clinics in the ACCESS network, the average number of syphilis tests per person increased by 13% from 1.6 in 2014 to 1.8 in 2018 (Figure 4.3.3)[1].

Figure 4.3.3 Average number of syphilis tests per year among gay and bisexual men, 2014–2018, by HIV status



	2014	2015	2016	2017	2018
All gay and bisexual men	1.6	1.6	1.8	1.9	1.8
HIV-negative gay and bisexual men	1.5	1.5	1.7	1.9	1.8
HIV-positive gay and bisexual men	2.0	2.0	2.0	2.0	1.8

Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance).

1 ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance)

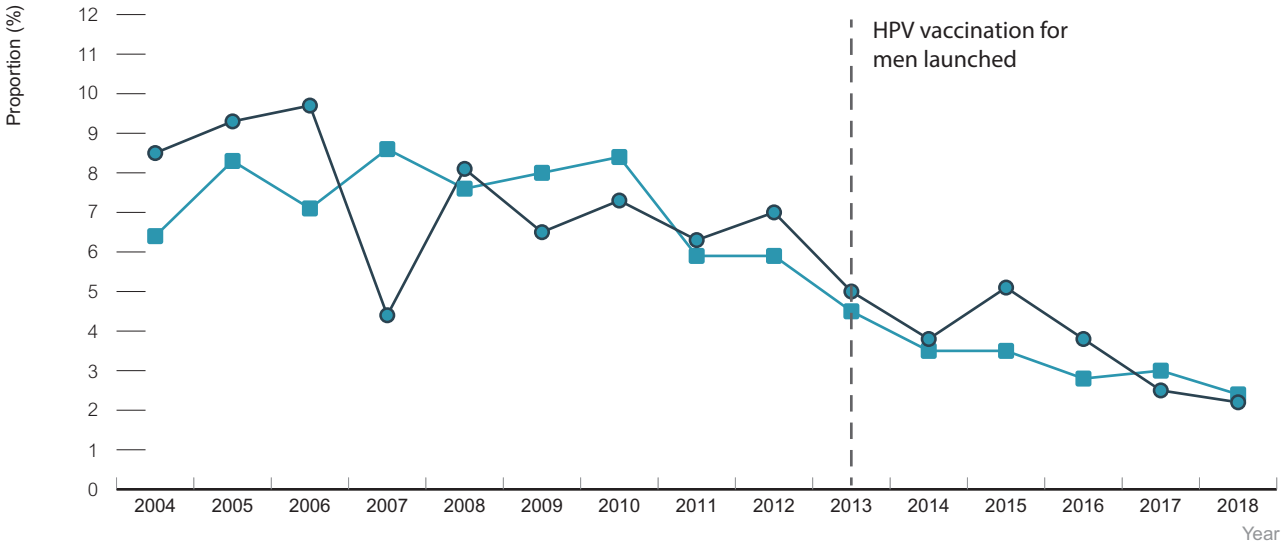
Please note all data are provisional and subject to change.

4.4 Human papillomavirus

Genital warts diagnoses

- The proportion of genital warts diagnoses in Australian-born gay and bisexual men at first visit has declined since the inclusion of male vaccination in the National Immunisation Program Schedule in 2013 (46% decline in gay men, 55% decline in bisexual men) (Figure 4.4.1)[1]. The gradual decline is largely explained by an increasing denominator as a greater number of asymptomatic gay and bisexual men are attending clinics for STI screening and HIV pre-exposure prophylaxis (PrEP).
- In the same time period, similar declines were seen in the proportion of genital warts diagnoses among non-Indigenous heterosexual men and women[1].

Figure 4.4.1 Proportion of Australian-born non-Indigenous gay or bisexual men diagnosed with genital warts at first visit at sexual health clinics, 2004–2018



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Gay men (%)	6.4	8.3	7.1	8.6	7.6	8.0	8.4	5.9	5.9	4.5	3.5	3.5	2.8	3.0	2.4
Bisexual men (%)	8.5	9.3	9.7	4.4	8.1	6.5	7.3	6.3	7.0	5.0	3.8	5.1	3.8	2.5	2.2

Source: Genital Wart Surveillance Network.

1 Genital Warts Surveillance Network

5 Aboriginal and Torres Strait Islander Peoples

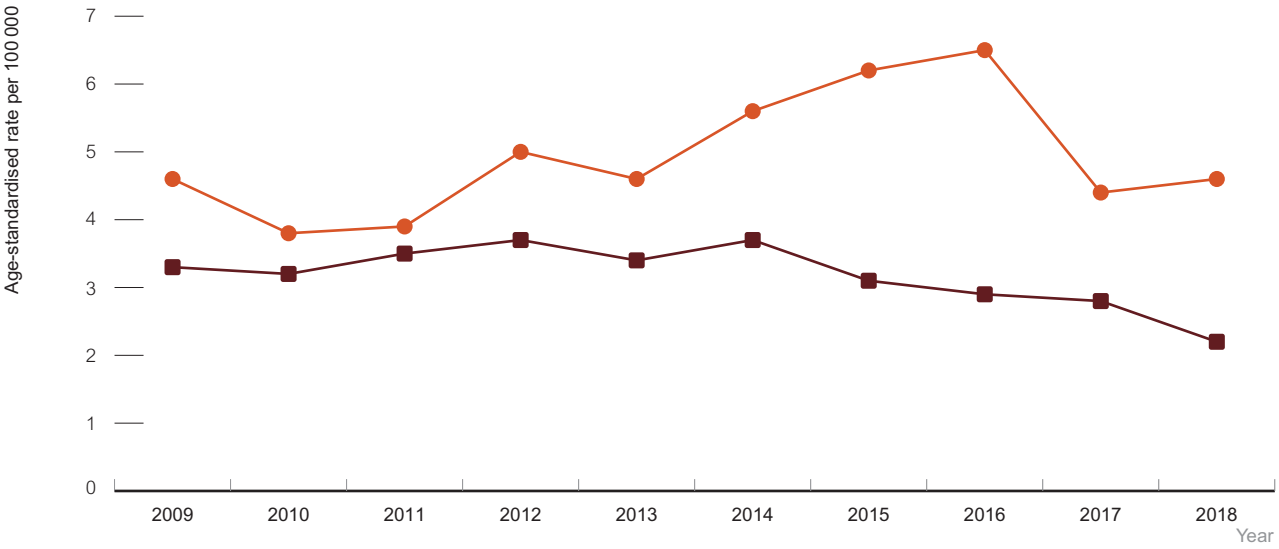
5.1 HIV

- In 2018, 34 HIV notifications (4%) were among the Aboriginal and/or Torres Strait Islander population, 790 (95%) were among the non-Indigenous population, and there were a further 9 (1%) notifications among people whose Indigenous status was not reported[1]. In each year of the ten-year period 2009–2018, Aboriginal and Torres Strait Islander status was recorded for >90% of HIV notifications in all jurisdictions, therefore data from all states and territories are included.
- The HIV notification rate among the Aboriginal and Torres Strait Islander population in 2018 was more than twice the rate of the non-Indigenous population (4.6 per 100 000 compared to 2.2 per 100 000) (Figure 5.1.1).
- In 2018, there was estimated 580 Aboriginal and/or Torres Strait Islander people living with HIV in Australia, of whom 510 (88%) had received a diagnosis[1].
- The prevalence of HIV among Aboriginal and/or Torres Strait Islander males participating in the Australian Needle Syringe Program Survey (ANSPS) has increased five-fold from 1% in 2009–2010, to 5% in 2017–2018[2].

1 The Kirby Institute
2 Australian Needle and Syringe Program Survey. For methodology details please see https://data.kirby.unsw.edu.au/

Please note all data are provisional and subject to change.

Figure 5.1.1 HIV notification rate (per 100 000 population) by Aboriginal and Torres Strait Islander status, 2009–2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australian-born Non-Indigenous	3.3	3.2	3.5	3.7	3.4	3.7	3.1	2.9	2.8	2.2
Aboriginal and/or Torres Strait Islander	4.6	3.8	3.9	5.0	4.6	5.6	6.2	6.5	4.4	4.6

Source: State and territory health authorities; includes all states and territories due to high completeness (>95%) of Aboriginal and Torres Strait Islander status in all years. For completeness of status by condition, please see the notifications section for each condition.

Table 5.1.1 Number of notifications and age standardised notification rates among Aboriginal and Torres Strait Islander peoples by condition, 2014–2018

	HIV	Hepatitis C	Hepatitis B	Chlamydia	Gonorrhoea	Infectious syphilis
	Number of notifications (age-standardised rate per 100 000 population)					
2014	34 (5.6)	712 (169.0)	140 (45.2)	6437 (1246.6)	3398 (578.9)	117 (31.2)
2015	39 (6.2)	762 (174.0)	196 (54.9)	6337 (1196.0)	3438 (572.6)	142 (57.6)
2016	46 (6.5)	827 (188.9)	130 (40.9)	6608 (1223.0)	3646 (594.0)	197 (69.8)
2017	30 (4.4)	795 (176.0)	131 (39.4)	6624 (1198.5)	3937 (627.9)	176 (102.7
2018	34 (4.6)	739 (163.6)	96 (27.0)	6897 (1242.4)	4439 (717.3)	152 (101.2)

Sources: State and Territory Health Authorities and the Australian National Notifiable Disease Surveillance System; includes jurisdictions with Aboriginal and Torres Strait Islander status completeness was ≥50%, For methodology details please see https://data.kirby.unsw.edu.au/.

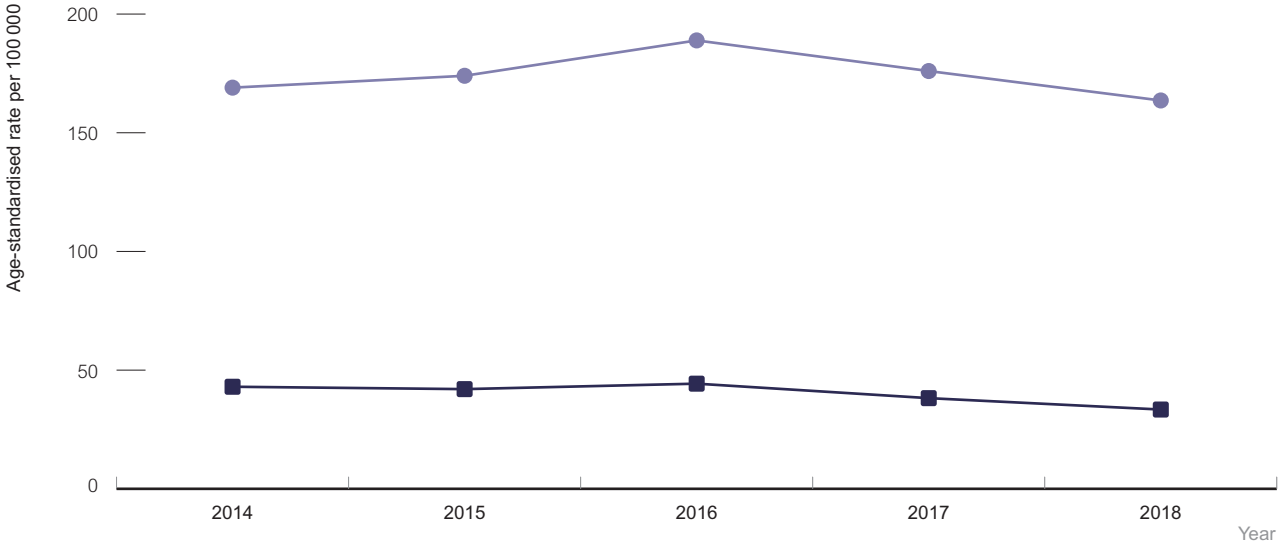
5.2 Hepatitis C^

- Between 2015–2018, there was a 20% reduction in the notification rate of hepatitis C among the non-Indigenous population (from 42.0 per 100 000 in 2015, to 33.4 per 100 000 in 2018), however the rate among the Aboriginal and Torres Strait Islander population remained relatively stable, reducing by only 6% from 174.0 notifications per 100 000 in 2015, to 163.6 per 100 000 in 2018 (Figure 5.2.1)[1]. Notification rates are based on data from six jurisdictions (The Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania and Western Australia) where the reporting of Aboriginal and Torres Strait Islander status was at least 50% complete for hepatitis C notifications for each of the past five years (2014–2018). New South Wales and Victoria were excluded from the analyses due to low reporting of Indigenous status.
- In 2018, there were 739 hepatitis C notifications among the Aboriginal and Torres Strait Islander population, down from 762 in 2015, a reduction of 3% (Table 5.1.1)(18)[2].
- The prevalence of hepatitis C antibody was higher among Aboriginal and Torres Strait Islander clients of needle syringe programs than non-Indigenous clients (53% compared to 43%, respectively in 2018)(Figure 5.2.2)[1].
- The proportion of Aboriginal and Torres Strait Islander people attending needle syringe programs who reported receptive syringe sharing increased from 23% in 2009 to 30% in 2018[1].
- In 2018, 46% of hepatitis C antibody-positive Aboriginal and Torres Strait Islander people who attended needle syringe programs had been treated for hepatitis C, compared to 58% of the non-Indigenous participants[1].

1 Australian National Notifiable Diseases Surveillance System
2 Australian Needle and Syringe Program Survey. For methodology details please see https://data.kirby.unsw.edu.au/
^ The years 2015 and 2018 are used for comparison to reflect the subsidised availability of Direct-acting Antiviral hepatitis C therapy since 2016

Please note all data are provisional and subject to change.

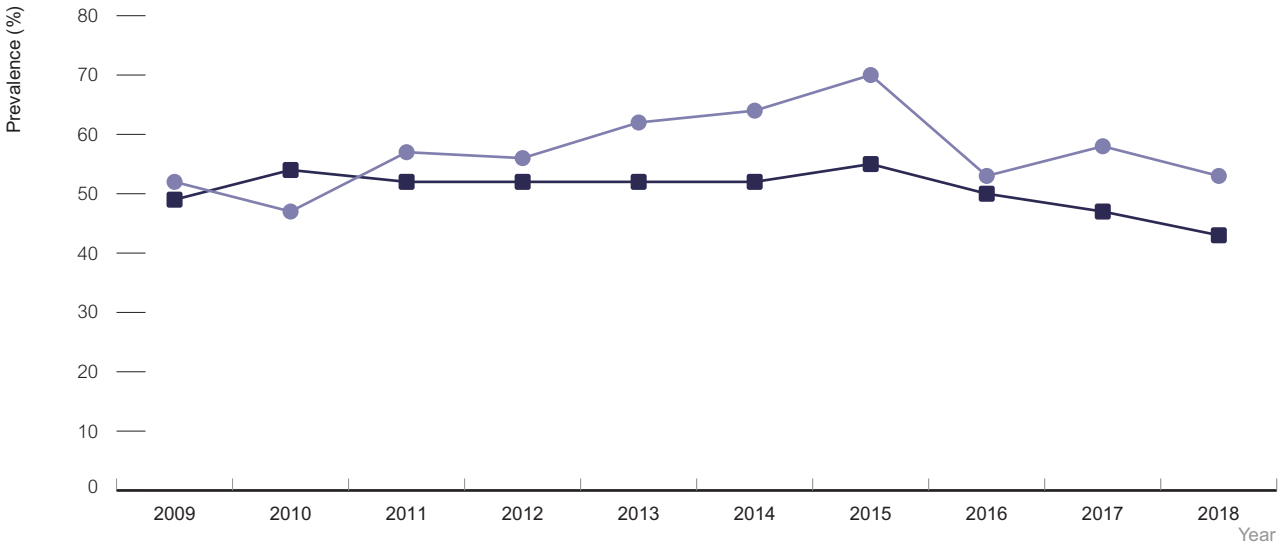
Figure 5.2.1 Hepatitis C notification rate (per 100 000 population) by Aboriginal and Torres Strait Islander status, 2014–2018



	2014	2015	2016	2017	2018
Aboriginal and/or Torres Strait Islander	168.8	173.6	188.9	176.0	163.6
Non-Indigenous	43.0	42.2	44.3	38.2	33.4

Source: Australian National Notifiable Disease Surveillance System; includes jurisdictions with Aboriginal and Torres Strait Islander status completeness was ≥50% (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, Western Australia) for each of the five years 2014–2018.

Figure 5.2.2 Hepatitis C antibody prevalence among Australian needle syringe program survey participants, 2009–2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Aboriginal and/or Torres Strait Islander (%)	52%	47%	57%	56%	62%	64%	70%	53%	58%	53%
Non-Indigenous (%)	49%	54%	52%	52%	52%	52%	55%	50%	47%	43%

Source: Australian Needle Syringe Program Survey.

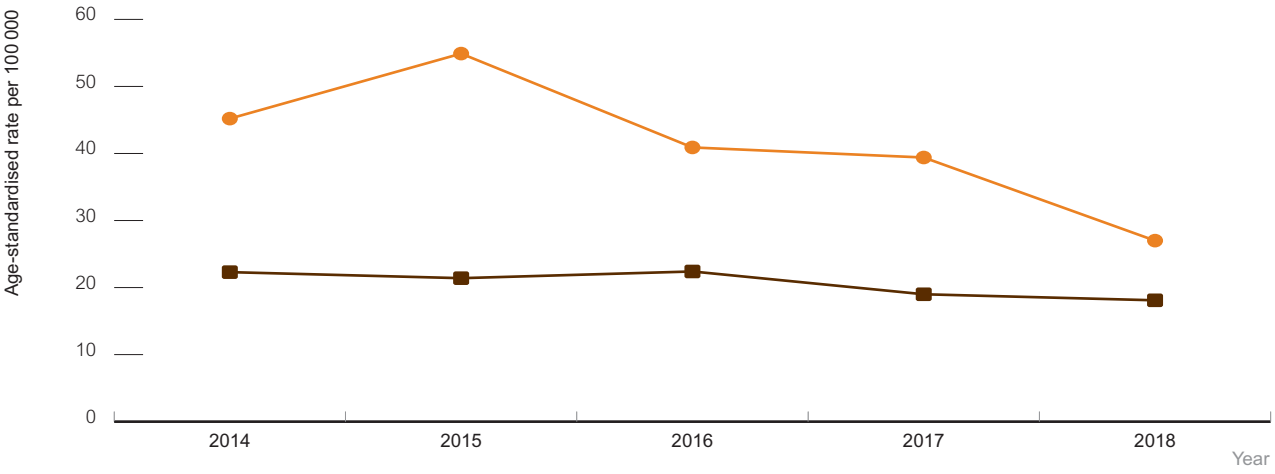
5.3 Hepatitis B

- In 2018, the age-standardised notification rate of hepatitis B for the Aboriginal and/or Torres Strait Islander population was 1.5 times as high as for the non-Indigenous population (27.0 per 100 000 compared to 18.1 per 100 00. This represents a 40% relative reduction in notification rates since 2014 among Aboriginal and Torres Strait Islander people (Figure 5.3.1)[1]. Notification rates are based on data from six jurisdictions (The Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania and Western Australia) where the reporting of Aboriginal and Torres Strait Islander status was at least 50% complete for hepatitis B notifications for each of the past five years (2014–2018). New South Wales and Victoria were excluded from the analyses due to low reporting of Indigenous status.
- In 2018, there were 96 hepatitis B notifications among the Aboriginal and Torres Strait Islander population, down from 140 notifications in 2014, an reduction of 31% (Table 5.1.1), (Figure 5.3.1)[1].
- Hepatitis B vaccination coverage by 24–months was estimated to be 97% among the Aboriginal and Torres Strait Islander population, compared to 96% among the non-Indigenous population (Figure 5.3.2)[2].

1 Australian National Notifiable Diseases Surveillance System
2 National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases

Please note all data are provisional and subject to change.

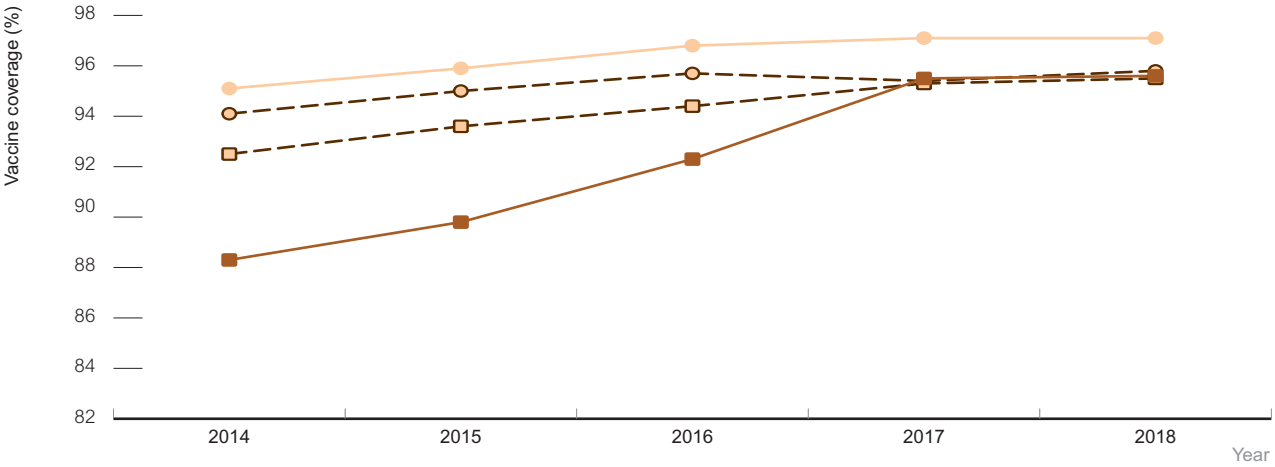
Figure 5.3.1 Hepatitis B notification rate (per 100 000 population) by Aboriginal and Torres Strait Islander status, 2014–2018



	2014	2015	2016	2017	2018
Non-Indigenous	22.3	21.4	22.4	19.0	18.1
Aboriginal and/or Torres Strait Islander	45.2	54.9	40.9	39.4	27.0

Source: Australian National Notifiable Disease System; includes jurisdictions with Indigenous status completeness was ≥50% (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania and Western Australia) for each of the five years 2014–2018.

Figure 5.3.2 Hepatitis B vaccination coverage at 12- and 24-months, 2014–2018, by Aboriginal and Torres Strait Islander status



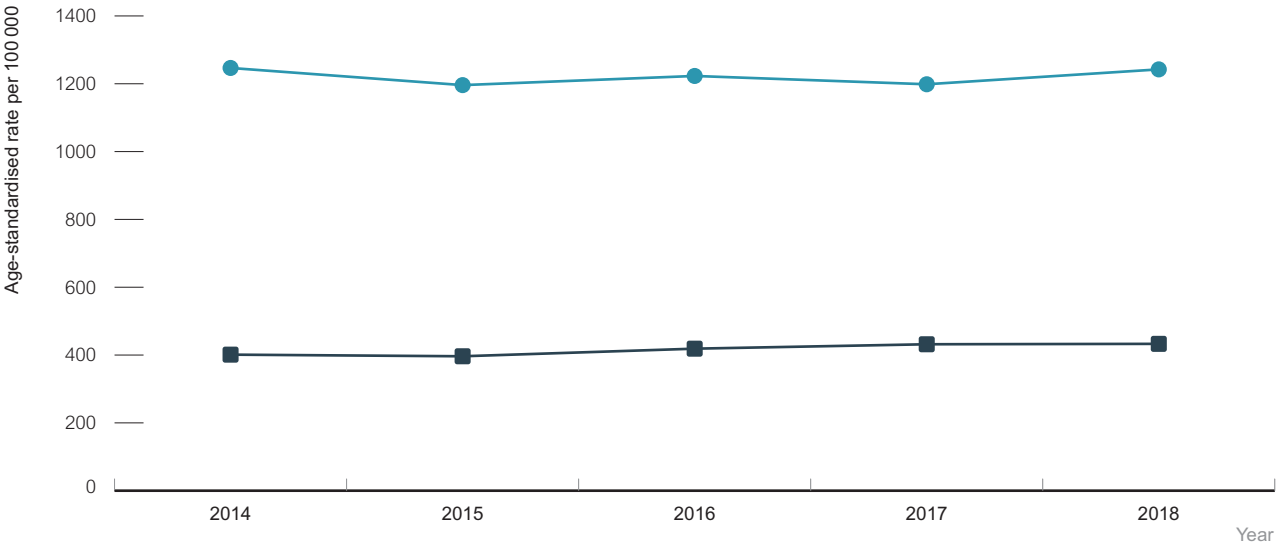
	2014	2015	2016	2017	2018
Aboriginal and/or Torres Strait Islander 12 months (%)	88.3	89.8	92.3	95.5	95.6
Aboriginal and/or Torres Strait Islander 24 months (%)	95.1	95.9	96.8	97.1	97.1
Non-Indigenous 12 months (%)	92.5	93.6	94.4	95.3	95.5
Non-Indigenous 24 months (%)	94.1	95	95.7	95.4	95.8

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

5.4 Chlamydia

- In 2018, the notification rate of chlamydia among the Aboriginal and/or Torres Strait Islander population was 1242.4 per 100 000, nearly three times greater than that of the non-Indigenous population (433.0 per 100 000 population). Since 2014, the notification rate of chlamydia among the Aboriginal and/or Torres Strait Islander population has remained stable. Among the non-Indigenous population, the notification rate increased by 9% from 396.4 per 100 000 in 2015 to 433.0 per 100 000 population in 2018 (Figure 5.4.1)[1]. Notification rates are based on data from four jurisdictions (Northern Territory, Queensland, South Australia, and Western Australia) where the reporting of Aboriginal and Torres Strait Islander status was at least 50% complete for chlamydia notifications for each of the past five years (2014–2018). The Australian Capital Territory, New South Wales, Tasmania, and Victoria were excluded from the analyses due to low reporting of Indigenous status.
- In 2018, there were 6897 chlamydia notifications among the Aboriginal and Torres Strait Islander population, up from 6437 in 2014, an increase of 7% (Table 5.1.1). (Figure 5.4.1)[1].

Figure 5.4.1 Chlamydia notification rate (per 100 000 population) by Aboriginal and Torres Strait Islander status, 2014–2018



	2014	2015	2016	2017	2018
Non-Indigenous	401.2	396.4	418.8	431.8	433.0
Aboriginal and/or Torres Strait Islander	1246.6	1196.0	1223.0	1198.5	1242.4

Source: Australian National Notifiable Diseases Surveillance System; includes jurisdictions with Aboriginal and Torres Strait Islander status was ≥50% (Northern Territory, Queensland, South Australia and Western Australia) for each of the five years 2014–2018.

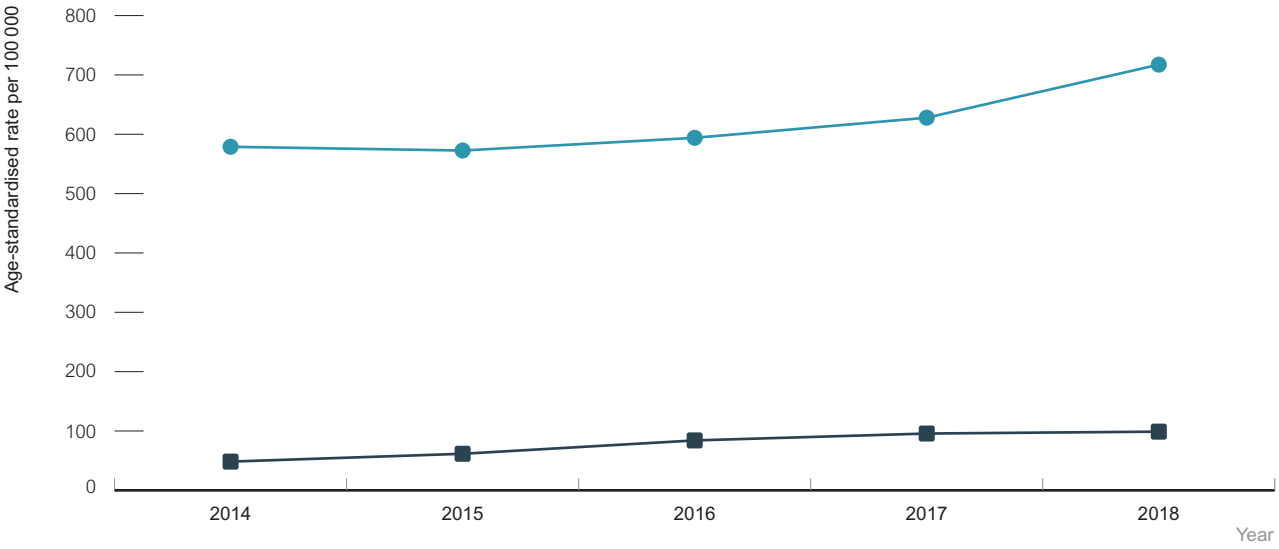
1 Australian National Notifiable Diseases Surveillance System

Please note all data are provisional and subject to change.

5.5 Gonorrhoea

- The gonorrhoea notification rate for the Aboriginal and/or Torres Strait Islander population in 2018 of 717.3 per 100 000 population was 7.3 times higher than that of the non-Indigenous population at 98.9 per 100 000 population. Since 2014, the gonorrhoea notification rate among the Aboriginal and/or Torres Strait Islander population has increased by 24%, compared to the notification rate doubling among the non-Indigenous population (Figure 5.5.1)[1]. Notification rates are based on data from seven jurisdictions (The Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, Victoria, and Western Australia) where the reporting of Aboriginal and Torres Strait Islander status was at least 50% complete for gonorrhoea notifications for each of the past five years (2014–2018). New South Wales was excluded from the analyses due to low reporting of Indigenous status.
- In 2018, there were 4439 gonorrhoea notifications among the Aboriginal and Torres Strait Islander population, up from 3398 in 2014, an increase of 31% (Table 5.1.1), (Figure 5.5.1)[1].

Figure 5.5.1 Gonorrhoea notification rate (per 100 000 population), 2014–2018



	2014	2015	2016	2017	2018
Non-Indigenous	48.4	61.6	84.1	95.7	98.9
Aboriginal and/or Torres Strait Islander	578.9	572.6	594.0	627.9	717.3

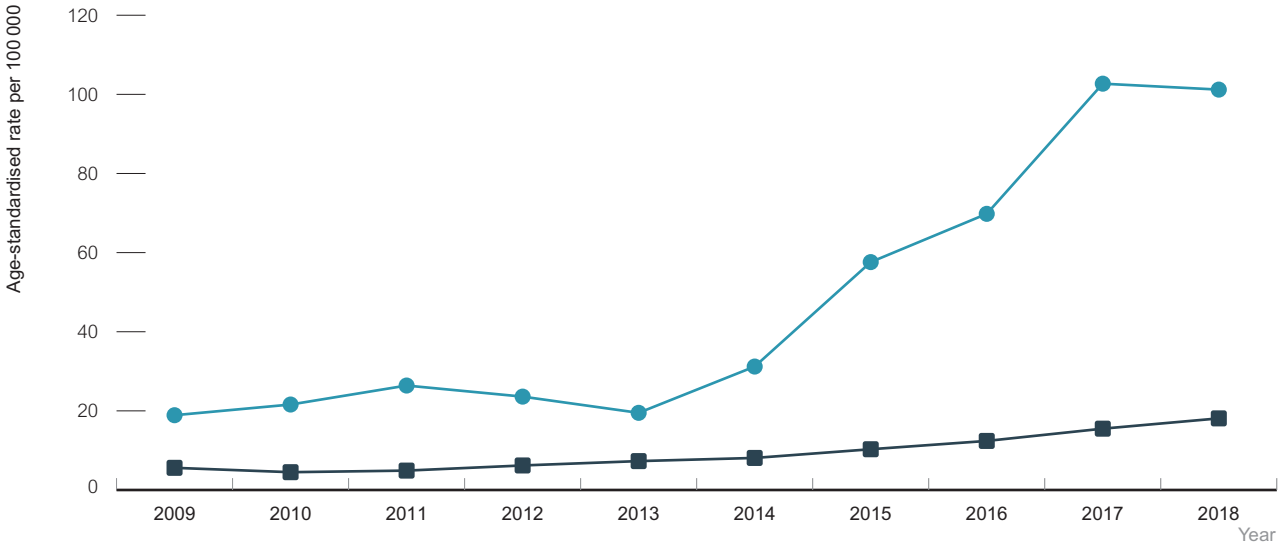
Source: Australian National Notifiable Diseases Surveillance System; includes jurisdictions with Aboriginal and Torres Strait Islander status completeness was ≥50% (Australian Capital Territory, Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia) for each of the five years 2014–2018.

1 The Kirby Institute

5.6 Infectious syphilis

- There has been an ongoing outbreak of infectious syphilis affecting young Aboriginal and Torres Strait Islander heterosexuals, predominately aged between 15 and 29 years, living in regional and remote areas of the Northern Territory, Queensland, South Australia and Western Australia. Increased notifications began being reported in northwest Queensland in 2011, followed by the Northern Territory (in 2013) and the Kimberley region of Western Australia (in 2014). By the end of 2018, the outbreak had spread to many parts of South Australia and Western Australia.
- Notification rates among the Aboriginal and/or Torres Strait Islander population were relatively stable between 2009 and 2013 (19.5 per 100 000 in 2013), then dramatically increased by a factor of five, reaching a maximum of 102.7 per 100 000 (in 2017). Rates stabilised in 2018 at 101.2 per 100 000, but remained considerably higher than that of the non-Indigenous population at 18.1 per 100 000 (Figure 5.6.1). In each year of the ten-year period 2009–2018, Aboriginal and Torres Strait Islander status was recorded for >90% of infectious syphilis notifications in all jurisdictions, therefore data from all states and territories are included.
- In 2018, notification rates of infectious syphilis were 3.2 times higher among Aboriginal and/or Torres Strait Islander males than non-Indigenous males (103.8 per 100 000 compared to 32.7 per 100 000), and 35 times higher among Aboriginal and/or Torres Strait Islander females than non-Indigenous females (99.6 per 100 000 compared to 2.8 per 100 000)[1].
- In 2018, there were 791 infectious syphilis notifications among the Aboriginal and Torres Strait Islander population, up from 246 in 2014, an increase of 222% (Table 5.1.1), Figure 5.6.1)[1].
- Over the last 10 years (2009–2018), more than half (28, 60%) of the 46 congenital syphilis notifications were among the Aboriginal and/or Torres Strait Islander population[1].
- In 2018, the congenital syphilis notification rate among the Aboriginal and/or Torres Strait Islander population was 14 times as high as the non-Indigenous notification rate (19.6 notifications per 100 000 live births vs. 1.4 notifications per 100 000 live births respectively)[1]. For further detail regarding congenital syphilis notifications please visit https://data.kirby.unsw.edu.au/atsi-report.

Figure 5.6.1 Infectious syphilis notification rate (per 100 000 population), 2009–2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Aboriginal and Torres Strait Islander	18.9	21.6	26.4	23.6	19.5	31.2	57.6	69.8	102.7	101.2
Non-Indigenous	5.6	4.5	4.9	6.2	7.3	8.1	10.3	12.4	15.5	18.1

Source: Australian National Notifiable Diseases Surveillance System; includes all jurisdictions as Aboriginal and Torres Strait Islander status was ≥50% in each of the 10 years presented.

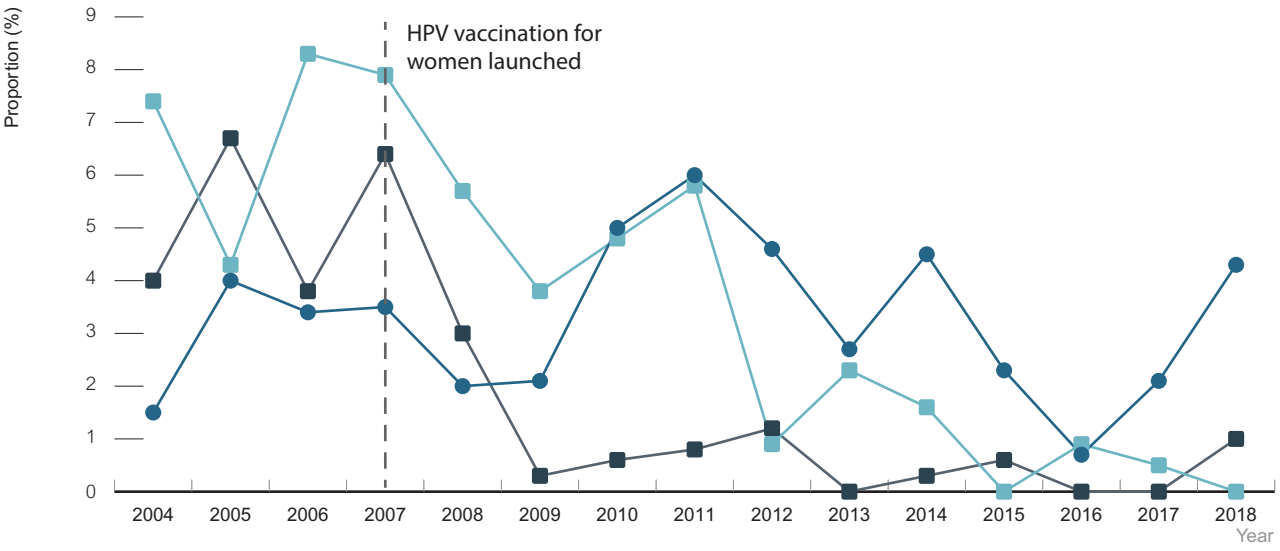
1 Australian National Notifiable Diseases Surveillance System

Please note all data are provisional and subject to change.

5.7 Human papillomavirus

- Following the introduction of vaccination against HPV in 2007 for females, and 2013 for males, there have been declines in the proportion of Aboriginal and Torres Strait Islander males and females presenting with genital warts at first visit at sexual health clinics. Females aged under 21 years have shown an 84% reduction (from 6.4% to 1.0%), whilst males aged under 21 years have shown an 81% reduction in genital warts diagnoses (from 7.2% to 1.4%), and (Figure 5.7.1 & Figure 5.7.2)[1].

Figure 5.7.1 Proportion of Aboriginal and/or Torres Strait Islander females notified with genital warts at first visit at sexual health clinics, 2004–2018, by age group

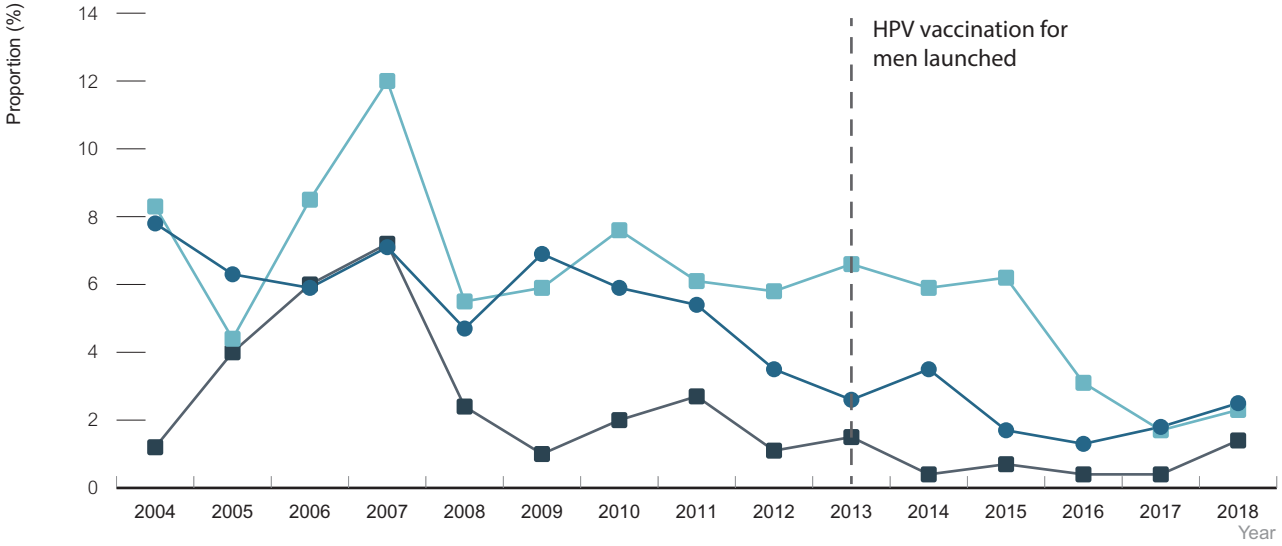


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<21 years (%)	4.0	6.7	3.8	6.4	3.0	0.3	0.6	0.8	1.2	0.0	0.3	0.6	0.0	0.0	1.0
21–29 years (%)	7.4	4.3	8.3	7.9	5.7	3.8	4.8	5.8	0.9	2.3	1.6	0.0	0.9	0.5	0.0
≥30 years (%)	1.5	4.0	3.4	3.5	2.0	2.1	5.0	6.0	4.6	2.7	4.5	2.3	0.7	2.1	4.3

Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance).

1 ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance

Figure 5.7.2 Proportion of Aboriginal and/or Torres Strait Islander males notified with genital warts at first visit at sexual health clinics, 2004–2018, by age group



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<21 years (%)	1.2	4.0	6.0	7.2	2.4	1.0	2.0	2.7	1.1	1.5	0.4	0.7	0.4	0.4	1.4
21–29 years (%)	8.3	4.4	8.5	12.0	5.5	5.9	7.6	6.1	5.8	6.6	5.9	6.2	3.1	1.7	2.3
≥30 years (%)	7.8	6.3	5.9	7.1	4.7	6.9	5.9	5.4	3.5	2.6	3.5	1.7	1.3	1.8	2.5

Source: ACCESS (Australian Collaboration for Coordinated Enhanced Sentinel Surveillance).

5.8 Donovanosis

- Donovanosis, once a commonly diagnosed sexually transmissible infection among remote Aboriginal populations, is now close to elimination, with only two cases notified since 2011 and the most recent notification recorded in 2015.