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HIV, viral hepatitis and sexually transmissible infections in Australia Annual surveillance report 2023

Hepatitis B

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Annual surveillance report 2023

Kirby Institute, UNSW Sydney

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

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Hepatitis B

We recognise communities and individuals impacted by and at risk of HIV, hepatitis B and C, and sexually transmissible infections. These people and communities are crucial stakeholders in the work we do, with invaluable contributions and lived experiences. We acknowledge and affirm their crucial role in the development of this report, and public health surveillance more broadly. This report aims to ensure that ongoing and emerging public health threats and inequities are apparent, and that high quality data are available to inform appropriate public health responses to address these issues. We also acknowledge the ongoing negative impacts stigma and societal discrimination play in perpetuating inequity, and support principles of empowerment, community ownership, and partnership.

*Prior reports have presented estimates on hepatitis B prevalence generated by **the Doherty Institute**, including the proportion of people undiagnosed, the proportion of people in care, and treatment coverage. Due to delays in data availability, this report will be updated in 2024 to include these estimates.*

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1 Summary data

Hepatitis B notifications

- In 2022, there were a total of 5075 hepatitis B notifications in Australia, with 2355 (46%) among females, 2698 (53%) among males, and 22 (<1%) notifications for whom gender was not reported.
- The hepatitis B notification rate declined by 33% between 2013 and 2022, from 28.8 to 19.3 per 100 000. Declines between 2019 and 2021 followed by a slight increase in 2022 were likely attributable in part to the impact of vaccination, as well as COVID-19 impacts on migration, healthcare access and testing, and travel during 2020 and 2021.
- Compared to other age groups, the hepatitis B notification rate in 2022 was highest among those aged 35 to 39 years (38.0 per 100 000) and those aged 30 to 34 years (34.3 per 100 000). The rate declined considerably among younger age groups between 2013 and 2022 (73% among people aged 0 to 14 years, 77% among those aged 15 to 19 years, 68% among those aged 20 to 24 years, and 61% among those aged 25 to 29 years). Declines were observed among those aged 30 to 34 years (21%) and 35 to 39 years (28%), while little change was seen among those aged 40 years and older. The overall trends by age group during 2013 – 2019 likely reflect the impact of hepatitis B vaccination programs, while the declines between 2019 and 2021 also reflect the COVID-19 pandemic and related disruptions.
- The hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples is based on data from five jurisdictions (Australian Capital Territory, Northern Territory, Queensland, South Australia, and Western Australia), where Aboriginal and Torres Strait Islander status was reported for at least half of all hepatitis B notifications for each the five years (2018 – 2022).
- The hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples declined by 35% between 2018 and 2022 from 29.4 to 19.0 per 100 000.
- The hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples was around a third higher (30%) compared with non-Indigenous people in 2022 (19.0 and 14.6 per 100 000, respectively).

Testing and care

- According to modelled estimates, in 2022, an estimated 72% (148 159) of people living with chronic hepatitis B in Australia had been diagnosed, and of those, an estimated 26% (52 415) were receiving regular clinical care. 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.
- Treatment for hepatitis is recommended for a proportion of patients who meet specific criteria for treatment based on age, viral load, liver function tests, liver fibrosis stage and family history. In 2020, 13% (26 504) of people living with chronic hepatitis B were estimated to be receiving antiviral therapy.

Prevention

- In 2022, infant hepatitis B vaccination coverage at 12 months of age was 90% among Aboriginal and Torres Strait Islander peoples and 94% among the non-Indigenous population, reaching 96% among both populations by 24 months of age.

2 Interpretation

Hepatitis B among adolescents and adults in Australia is transmitted through a variety of pathways, including injection drug use and sexual contact. Most people living with chronic hepatitis B in Australia were born overseas and acquired hepatitis B at birth or in early childhood. Therefore, hepatitis B notifications reflect trends in both the incidence of new infections and testing for those with chronic infections. Between 2019 and 2021, there were reductions in testing, diagnosis, and monitoring of hepatitis B, likely due to the ongoing COVID-19 pandemic. This change represents reduced progress toward Australia's National Strategy Targets for diagnosis.

Between 2013 and 2022, age-specific hepatitis B notification rates declined among younger age groups (under 40 years) that are most likely to have benefited from the introduction of universal vaccination of infants in 2000 (1990 in the Northern Territory) and adolescent catch-up programs from 1998 (with variations by jurisdiction in when school-based vaccination programs were introduced). Vaccination programs introduced in countries that many Australian migrants emigrate from have also has led to lower hepatitis B prevalence among recent migrants to Australia. However, there was a decline in hepatitis B vaccination rates among Aboriginal and Torres Strait Islander children between 2017 and 2022. This decline impacts the progress towards the elimination of mother to child transmission and could increase hepatitis B infections among Aboriginal and Torres Strait Islander peoples over the coming decades. Other strategies to prevent mother to child transmission of hepatitis B including maternal screening and treatment, and hepatitis B Immunoglobulin (HBIG) injection for infants born to women with hepatitis B, are also likely to have contributed to this decline.

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3 Hepatitis B notifications

This section focuses on people notified with hepatitis B infection in Australia, including notifications of newly acquired hepatitis B infection (having evidence of hepatitis B acquisition within two years prior to diagnosis) and unspecified (those without evidence of being newly acquired).

There were 5075 hepatitis B notifications in Australia in 2022 with the vast majority (99%, 5017) were reported as unspecified (without evidence of recent infection), and only 58 (1%) were reported as newly acquired. Of all hepatitis B notifications, 108 (2%) were among Aboriginal and Torres Strait Islander peoples, 2757 (54%) were among non-Indigenous people, and there were a further 2210 (44%) notifications for which Aboriginal and Torres Strait Islander status was not reported.

In 2022, just over half (53%, 2698) of hepatitis B notifications were among males, 59% (2994) were among people aged 40 years and above, and 85% (4321) were among people residing in major cities (Table 1).

Table 1 Characteristics of hepatitis B notifications, 2013 – 2022

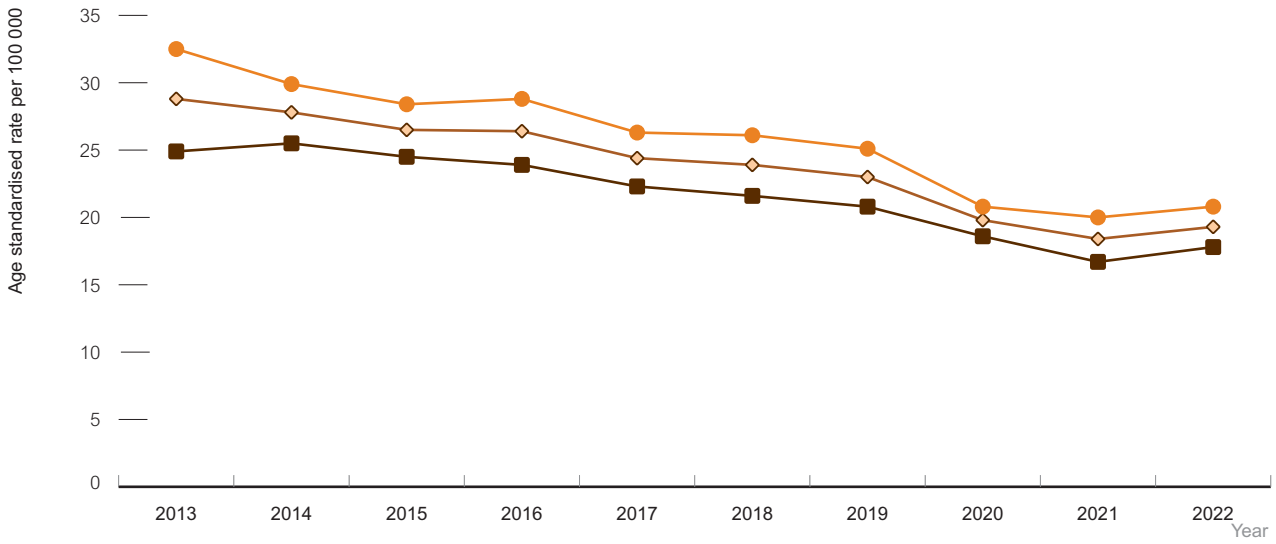
	Year of diagnosis									
Characteristic	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total cases	6954	6486	6267	6319	5963	5931	5793	5081	4726	5075
Newly acquired[a]	173	177	148	170	145	137	163	125	82	58
Sex										
Male	2883	2981	2906	2878	2749	2704	2646	2421	2168	2355
Female	4044	3474	3341	3415	3197	3201	3123	2642	2542	2698
Not reported	27	31	20	26	17	26	24	18	16	22
Age group (years)										
<20	409	240	234	256	170	145	164	95	72	87
20–29	1777	1542	1427	1277	1197	1138	986	734	605	618
30–39	2028	1978	1862	1995	1822	1802	1850	1548	1334	1376
40–49	1212	1244	1181	1190	1112	1226	1137	1016	1083	1094
50–59	877	821	881	860	838	787	774	823	785	850
60–69	464	476	481	482	567	574	619	607	561	680
70+	187	182	197	257	257	259	263	257	286	370
Not reported	0	3	4	2	0	0	0	1	0	0
Aboriginal and Torres Strait Islander status										
Aboriginal and/or Torres Strait Islander	235	198	251	191	170	168	150	166	161	108
Non-Indigenous	3712	3391	3154	3586	3600	3717	3503	2870	2673	2757
Not reported	3007	2897	2862	2542	2193	2046	2140	2045	1892	2210
Area of residence										
Major cities	5386	5487	5275	5418	5085	5011	4918	4281	3900	4321
Regional	883	745	729	693	626	634	634	586	614	582
Remote	538	144	154	93	107	103	90	110	115	70
Not reported	147	110	109	115	145	183	151	104	97	102
State/Territory										
ACT	112	97	83	89	87	85	85	79	71	88
NSW	2450	2466	2257	2256	2228	2345	2165	1941	1734	2063
NT	331	153	161	109	101	85	83	92	32	44
QLD	859	941	1029	1049	910	854	944	845	756	803
SA	331	372	342	318	294	274	309	266	200	192
TAS	58	60	41	40	43	43	67	57	77	61
VIC	1842	1761	1780	1796	1764	1749	1689	1281	1311	1396
WA	971	636	574	662	536	496	451	520	545	428

a Newly acquired hepatitis B is defined as newly diagnosed hepatitis B infection with evidence of acquisition in the two years before diagnosis. Enhanced surveillance procedures related to hepatitis B vary by state/territory. The total number of cases reported here is likely to be an underestimation of the true number of newly acquired infections.

Source: Australian National Notifiable Diseases Surveillance System.

The hepatitis B notification rate in Australia declined by 33%, from 28.8 per 100 000 in 2013 to 19.3 per 100 000 in 2022. The sharp decline in notification rates between 2019 and 2021, followed by a slight increase in 2022 was likely due in part to the impacts of the COVID-19 pandemic, in particular the impact on testing uptake, international travel, and migration. The overall decline since 2013 was likely due to hepatitis B vaccination programs in Australia and overseas [1]. Notification rates have been consistently higher among males than females, and were 20.8 and 17.8 per 100 000 in 2022, respectively (Figure 1).

Figure 1 Hepatitis B notification rate per 100 000 population by gender, 2013 – 2022



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Males	32.5	29.9	28.4	28.8	26.3	26.1	25.1	20.8	20.0	20.8
Females	24.9	25.5	24.5	23.9	22.3	21.6	20.8	18.6	16.7	17.8
Total	28.8	27.8	26.5	26.4	24.4	23.9	23.0	19.8	18.4	19.3

Source: Australian National Notifiable Diseases Surveillance System.

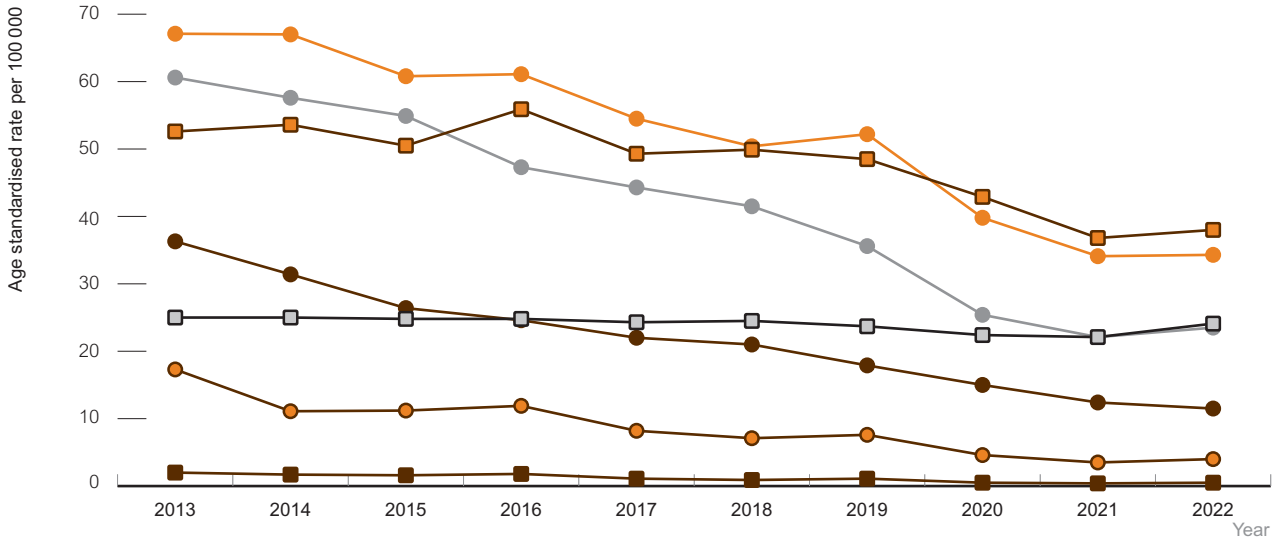
What does this mean?

The rate of hepatitis B diagnoses has declined since 2013, especially since the start of the COVID-19 pandemic in 2020. Overall, males are diagnosed slightly more often than females.

In 2022, the highest notification rates were seen among those aged 35 to 39 years (38.0 per 100 000), 30 to 34 years (34.3 per 100 000), and 40 years and older (24.1 per 100 000).

Between 2013 and 2022, hepatitis B notification rates declined overall with the greatest declines seen among younger age groups. A decline of 77% was seen among those aged 15 to 19 years (from 17.3 to 4.0 per 100 000), 75% among those aged 0 to 14 years (from 2.0 to 0.5 per 100 000), 69% among those aged 20 to 24 years (from 36.3 to 11.4 per 100 000), 61% among those aged 25 to 29 years (from 60.6 to 23.5 per 100 000), 21% among those aged 30 to 34 years (from 65.4 to 51.5 per 100 000), and 28% among those aged 35 to 39 years (from 52.6 to 38.0 per 100 000 (Figure 2). In the same period, the notification rate remained relatively stable among those aged 40 years and older (between 22.1 and 25.0 per 100 000), with the lowest rates in the period occurring over the peak of the COVID-19 pandemic, between 2020 and 2021. The greater declines seen among the younger age groups are likely due hepatitis B immunisation, introduced nationally for infants in Australia in 2000, and in many countries with high migration to Australia in the 1990s. (Figure 2).

Figure 2 Hepatitis B notification rate per 100 000 population by age group, 2013 – 2022



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
0–14	2.0	1.7	1.6	1.8	1.1	0.9	1.1	0.5	0.4	0.5
15–19	17.3	11.1	11.2	11.9	8.2	7.1	7.6	4.6	3.5	4.0
20–24	36.3	31.4	26.4	24.6	22.0	21.0	17.9	15.0	12.4	11.5
25–29	60.6	57.6	54.9	47.3	44.3	41.5	35.6	25.4	22.1	23.5
30–34	67.1	67.0	60.8	61.1	54.5	50.4	52.2	39.8	34.1	34.3
35–39	52.6	53.6	50.5	55.9	49.3	49.9	48.5	42.9	36.8	38.0
40+	25.0	25.0	24.8	24.8	24.3	24.5	23.7	22.4	22.1	24.1

Source: Australian National Notifiable Diseases Surveillance System.

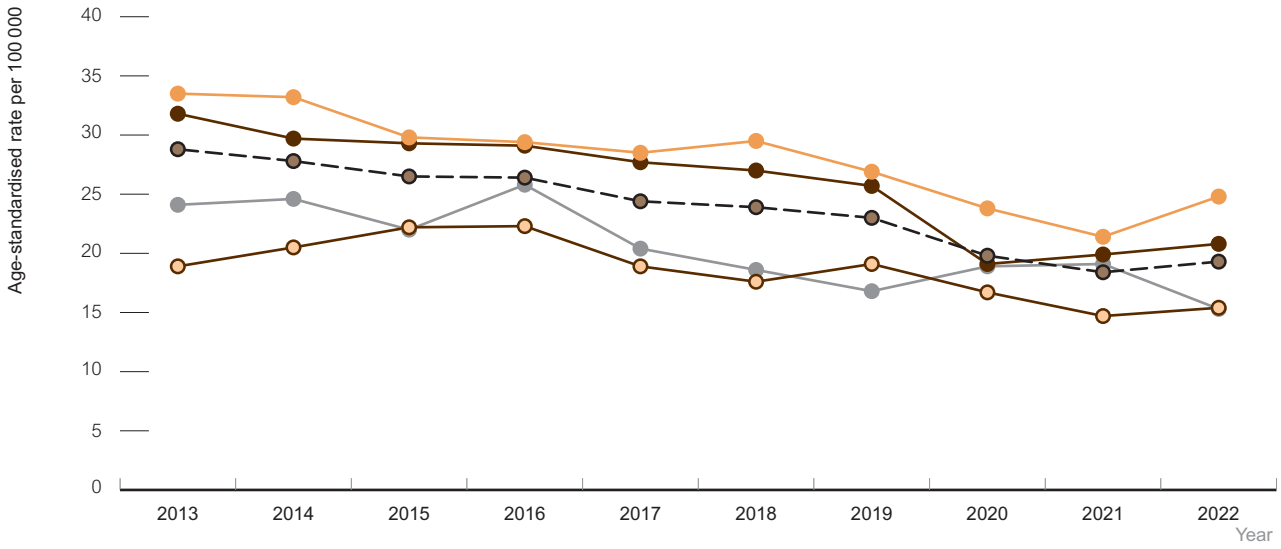
What does this mean?

Since 2013, hepatitis B diagnoses have decreased across all age groups under 40 years, especially for people aged under 30 years.

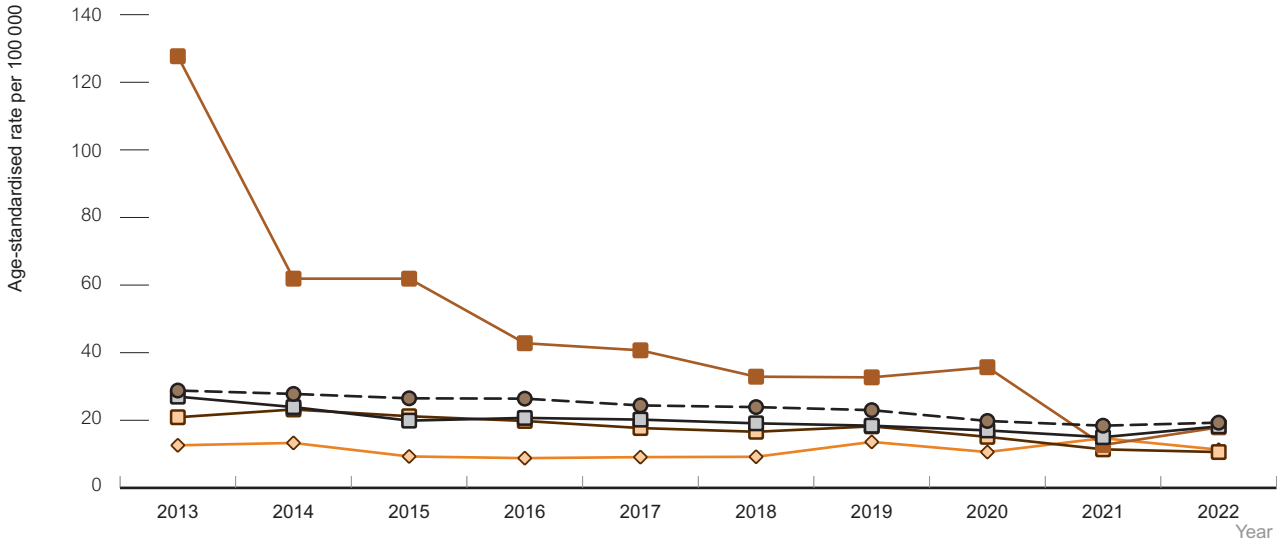
Hepatitis B notification rates among males and females declined overall between 2013 and 2022, with the greatest declines seen among the younger age groups. Among those aged 0 to 14 years, notification rates decreased by 80% among females and 67% among males, (from 1.5 to 0.3 per 100 000 and from 2.5 to 0.8 per 100 000, respectively). Similarly, among those aged 15 to 19 years rates declined by 85% among males and 62% among females. Detailed breakdowns of notification rates by gender and age are available on the Kirby Institute data site.

The hepatitis B notification rate in Australia has consistently been highest in the Northern Territory but fell by 86% between 2013 and 2022 (from 127.7 to 17.9 per 100 000 in 2022). Declines between 2013 and 2022 were also observed in other jurisdictions with declines of 49% in South Australia, 37% in Western Australia, 35% in Victoria, 33% in the Australian Capital Territory, 26% in New South Wales, and 18% in Queensland, and 10% in Tasmania (Figure 3).

Figure 3 Hepatitis B notification rate per 100 000 population by state/territory, 2013 – 2022



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
NSW	33.5	33.2	29.8	29.4	28.5	29.5	26.9	23.8	21.4	24.8
QLD	18.9	20.5	22.2	22.3	18.9	17.6	19.1	16.7	14.7	15.4
VIC	31.8	29.7	29.3	29.1	27.7	27.0	25.7	19.1	19.9	20.8
WA	24.1	24.6	22.0	25.8	20.4	18.6	16.8	18.9	19.1	15.3
Australia	28.8	27.8	26.5	26.4	24.4	23.9	23.0	19.8	18.4	19.3



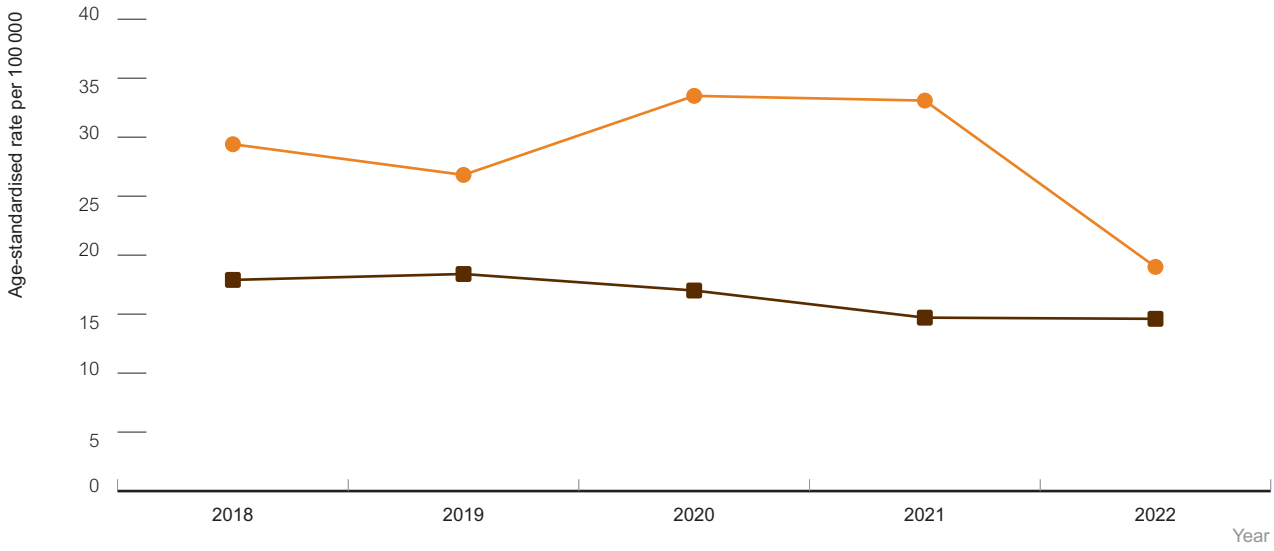
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ACT	27.0	23.9	19.9	20.7	20.2	19.1	18.4	17.0	15.0	18.2
NT	127.7	61.9	61.9	42.8	40.7	32.9	32.7	35.7	12.7	17.9
SA	20.9	23.2	21.2	19.8	17.7	16.6	18.2	15.1	11.4	10.6
TAS	12.6	13.3	9.3	8.8	9.1	9.2	13.6	10.6	14.7	11.3
Australia	28.8	27.8	26.5	26.4	24.4	23.9	23.0	19.8	18.4	19.3

Source: National Notifiable Diseases Surveillance System

The hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples is based on data from five jurisdictions (Australian Capital Territory, Northern Territory, Queensland, South Australia, and Western Australia), where Aboriginal and Torres Strait Islander status was reported for at least half of all hepatitis B notifications for each of the five years (2018 – 2022). Approximately 50% of Aboriginal and Torres Strait Islander peoples reside in these jurisdictions, so it is important to note that the notification rates presented below are not necessarily nationally representative.

In 2022, the hepatitis B notification rate among Aboriginal and Torres Strait Islander peoples in these jurisdictions was close to a third higher (30%) than among the non-Indigenous population (19.0 per 100 000 compared with 14.6 per 100 000) (Figure 4). Among Aboriginal and Torres Strait Islander peoples in the reported jurisdictions, the notification rate declined by 35% from 29.4 per 100 000 in 2018 to 19.0 per 100 000 in 2022. Similarly, among non-Indigenous people, the notification rate decreased by 37% from 17.9 per 100 000 in 2018 to 14.6 per 100 000 in 2022. For further information on hepatitis B notification rates by Aboriginal and Torres Strait Islander status and age, please refer to the Kirby Institute data site and *Bloodborne viral and sexually transmissible infections in Aboriginal and Torres Strait Islander people: annual surveillance report 2023*[2].

Figure 4 Hepatitis B notification rate per 100 000 population by Aboriginal and Torres Strait Islander status, 2018 – 2022



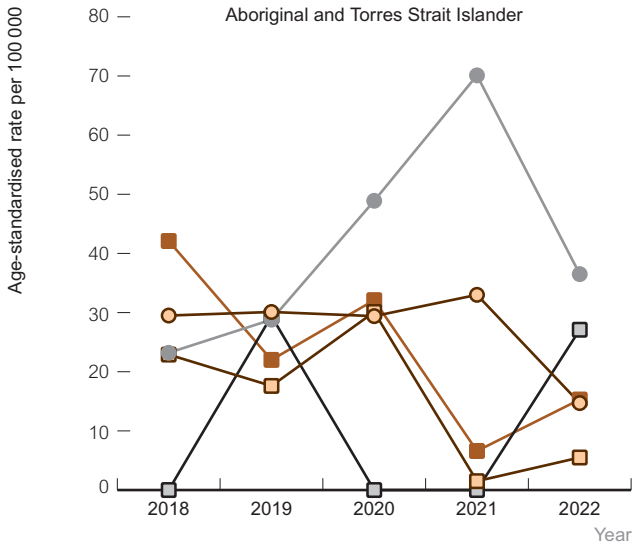
	2018	2019	2020	2021	2022
Non-Indigenous	29.4	26.8	33.5	33.1	19.0
Aboriginal and Torres Strait Islander	17.9	18.4	17.0	14.7	14.6

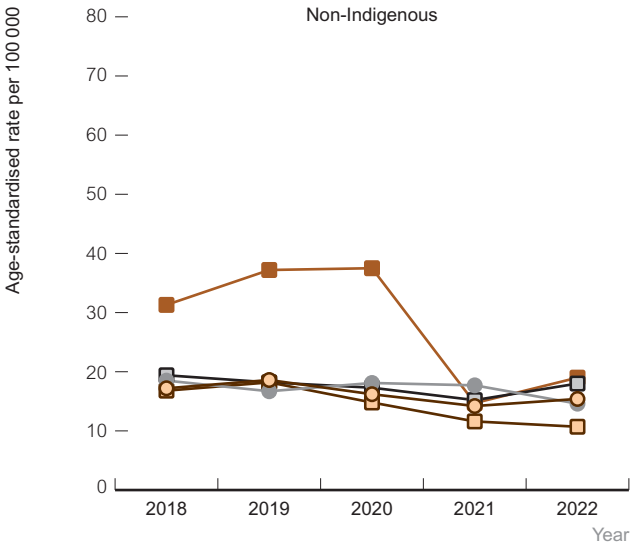
Source: Australian National Notifiable Diseases Surveillance System. Includes jurisdictions in which Aboriginal and Torres Strait Islander status was reported for ≥50% of notifications for each year (Australian Capital Territory, Northern Territory, Queensland, South Australia, and Western Australia).

What does this mean?

Hepatitis B is diagnosed more often among Aboriginal and Torres Strait Islander peoples than among non-Indigenous people.

Figure 5 Hepatitis B notification rate per 100 000 by state/territory and Aboriginal and Torres Strait Islander status, 2018 – 2022





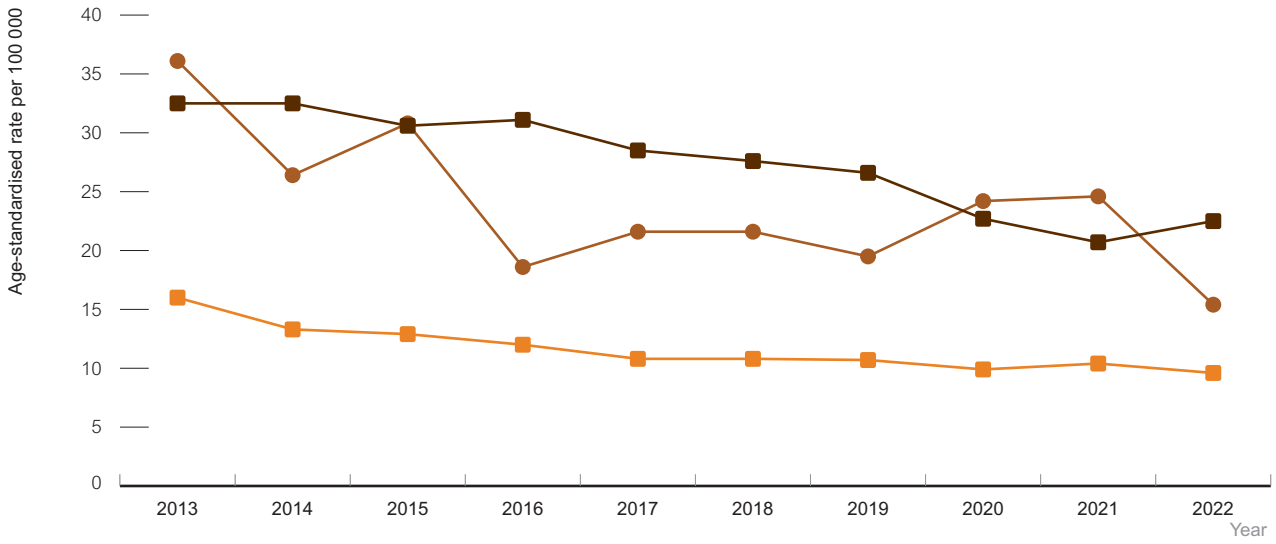
	Aboriginal and Torres Strait Islander					Non-Indigenous				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
ACT	0.0	29.4	0.0	0.0	27.1	19.4	18.2	17.3	15.2	18.0
NT	42.1	22.0	32.1	6.6	15.3	31.3	37.2	37.5	14.7	19.0
QLD	29.5	30.1	29.4	33.0	14.7	17.2	18.6	16.2	14.2	15.4
SA	22.9	17.6	30.1	1.5	5.5	16.8	18.2	14.8	11.6	10.7
WA	23.2	28.8	48.9	70.1	36.5	18.5	16.7	18.1	17.7	14.6

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

Higher rates of newly diagnosed hepatitis B among Aboriginal and Torres Strait Islander populations compared to the non-Indigenous population reflects the higher prevalence of chronic hepatitis B among Aboriginal and Torres Strait Islander peoples. This relates to historical vertical and early childhood transmission, particularly in the pre-vaccine era, with some additional infections through sexual and blood contact in adolescence and adulthood [3]. Aboriginal and Torres Strait Islander peoples also have higher rates of risk factors for adult hepatitis B acquisition, including receptive syringe sharing among people who inject drugs. (See above under Hepatitis B prevention, p. 16.). However, it should be acknowledged that among the jurisdictions reported, the gap between the Aboriginal and Torres Strait Islander notification rate and the non-Indigenous notification rate in 2022 is the smallest in the reporting period. This changing trend may be partly due to high hepatitis B vaccination rates among Aboriginal and Torres Strait Islander peoples.

Hepatitis B notification rates were higher in 2022 among people residing in major cities (22.5 per 100 000) than in remote and regional areas (15.4 and 9.6 per 100 000 respectively). Between 2013 and 2022, the hepatitis B notification rate declined by 57% in remote areas, 40% in regional areas, and 31% in major cities. The differing rates in decline may relate to a combination of the variation in levels of overseas immigration between areas and the impact of Australian hepatitis B immunisation programs. (Figure 6). These patterns were similar among males and females, with notification rates lowest in regional areas for both genders. For breakdowns of notification rates by gender and remoteness area please see the Kirby Institute data site.

Figure 6 Hepatitis B notification rate per 100 000 population by region of residence, 2013 – 2022



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Major cities	32.5	32.5	30.6	31.1	28.5	27.6	26.6	22.7	20.7	22.5
Regional	16.0	13.3	12.9	12.0	10.8	10.8	10.7	9.9	10.4	9.6
Remote	36.1	26.4	30.8	18.6	21.6	21.6	19.5	24.2	24.6	15.4

Source Australian National Notifiable Diseases Surveillance System.

What does this mean?

Since 2013, the number of hepatitis B diagnoses has declined in major cities, remote and regional areas, with the biggest decline in remote areas.

4 Number of people living with hepatitis B and prevalence

Number of people living with hepatitis B

Estimates included in this report are derived using a mathematical model for the natural history of hepatitis B in Australia. To ensure estimates most accurately reflect the current epidemiology and clinical pattern of chronic hepatitis B in Australia, data inputs and assumptions are updated annually to incorporate new information. For this reason, historical indicator estimates provided in this report will differ from those in previous reports.

At the end of 2022 there were an estimated 205 549 people living with chronic hepatitis B in Australia. Of those, an estimated 143 933 (70%) were born overseas, 33 093 (16%) were Australian-born non-Indigenous people, and 13 810 (7%) were Aboriginal and/or Torres Strait Islander people (Table 2). People born in Southeast Asia and Northeast Asia, together with Aboriginal and Torres Strait Islander peoples, represent 10% of the Australian population [3], but account for more than half of all people living with chronic hepatitis B in Australia. The estimated proportion of people living with hepatitis B was also higher among people who inject drugs (6318, 3% of people living with chronic hepatitis B) and gay and bisexual men (8359, 4% of people living with chronic hepatitis B). The prevalence estimates among overseas-born Australians reflect the prevalence in the country of their birth, which is particularly high in the Asia-Pacific region (Figure 7).

Table 2 Estimated number of people living with chronic hepatitis B and estimated prevalence by country of birth, 2022

Population	People living with chronic hepatitis B	Proportion of all people living with chronic hepatitis B	Hepatitis B prevalence
Total	200 385	100%	0.19%
Australian-born non-Indigenous	32 297	16.1%	5.00%
Born in Northeast Asia	45 994	23.0%	4.03%
Born in Southeast Asia	45 125	22.5%	2.28%
Born in Sub-Saharan Africa	8 541	4.3%	0.82%
Other regions of birth	40 657	20.3%	1.54%
Aboriginal and/or Torres Strait Islander	13 463	6.7%	2.55%
People who inject drugs[a]	6 160	3.1%	2.24%
Gay and bisexual men[a,b]	8 149	4.1%	0.19%

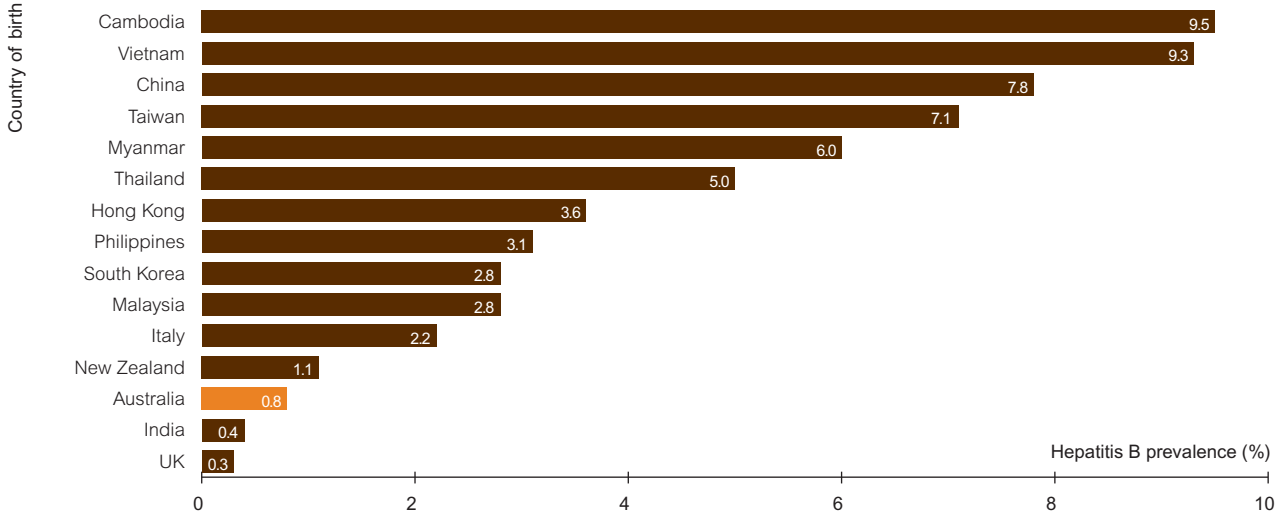
Note: Although people may belong to more than one subgroup, they are allocated only one in the model.

a Estimates are for Australian-born non-Indigenous people due to prioritisation of country of birth and Aboriginal and Torres Strait Islander status as risk factors.

b Estimates for this population based on sexual behaviour data from the Second Australian Study of Health and Relationships.

Source: WHO Collaborating Centre for Viral Hepatitis, Doherty Institute.

Figure 7 Estimated prevalence of chronic hepatitis B infection among Australians born overseas by country, 2022



Source: Adjusted Australian antenatal prevalence data [4,5], international population seroprevalence data[6,7], WHO Collaborating Centre for Viral Hepatitis, Doherty Institute.

Hepatitis B morbidity

The total number of estimated attributable deaths has changed over time, decreasing during the mid-2000s due to the introduction of effective antiviral treatment and the resulting reduction in mortality associated with chronic hepatitis B among people at greatest risk of adverse outcomes. In recent years, the number of deaths has plateaued and started increasing instead of continuing to decrease, in part due to ageing, an increasing population and treatment uptake not increasing sufficiently.

There were an estimated 466 deaths attributable to chronic hepatitis B in 2022, with the majority of the deaths attributed to hepatocellular carcinoma (391 deaths), compared with decompensated cirrhosis (75 deaths). These estimates are produced by the WHO Collaborating Centre for Viral Hepatitis at the Doherty Institute and were derived from modelling, which may not correlate with transplant data.

There is no comprehensive registry of advanced liver disease related to hepatitis B in Australia. One indicator of the extent of liver disease caused by hepatitis B is the number of liver transplants due to chronic hepatitis B infection. Of the 205 liver transplants in 2022, eight (4%) were attributable to chronic hepatitis B infection. Many factors influence the selection of candidates for transplant, and the numbers may not necessarily reflect the overall morbidity and mortality attributable to individual causes of liver disease. For detailed information relating to chronic hepatitis B among liver transplant patients, please see the Kirby Institute data site.

5 Hepatitis B testing and care

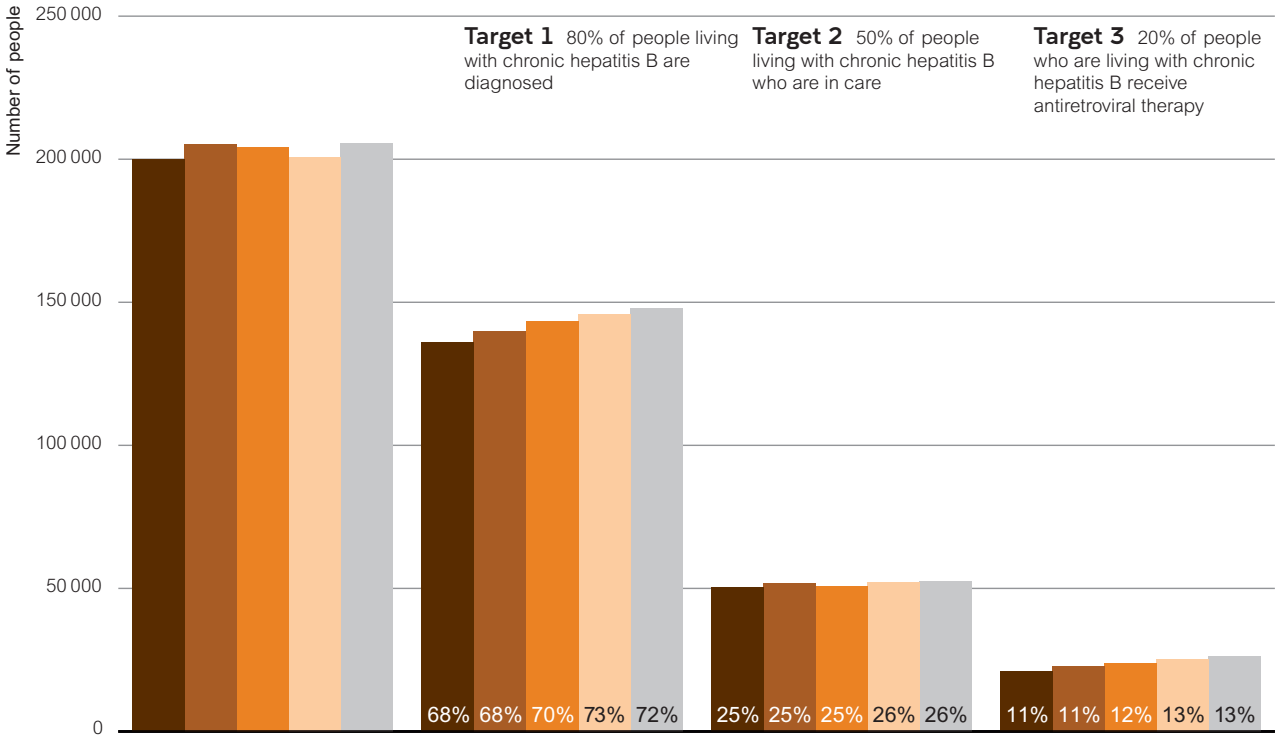
The hepatitis B diagnosis and care cascade

This section includes the hepatitis B diagnosis and care cascade, which estimates the number of people living with chronic hepatitis B infection in Australia, number diagnosed, number retained in care and number receiving antiviral treatment.

These estimates are produced by the WHO Collaborating Centre for Viral Hepatitis at the Doherty Institute and are intended to support improvements in the delivery of services to people with hepatitis B infection. Proportions of people in each stage of the cascade in Australia were estimated using mathematical modelling, notifications, and Medicare data. The approach was informed by recommendations from a national stakeholder reference group (see Methodology for further detail).

At the end of 2022, an estimated 205 549 people were living with chronic hepatitis B in Australia. Of those, an estimated 148 159 (72.1% %) were diagnosed, 52 515 (25.5% of those living with chronic infection) received care (viral load monitoring or received antiviral therapy), and 26 504 (12.9% of those living with chronic infection) received antiviral therapy (Figure 8)

Figure 8 The hepatitis B diagnosis and care cascade, 2018–2022



	Living with hepatitis B infection	Diagnosed with hepatitis B infection	Receiving care	Received treatment
2018	199 974	136 013	50 432	21 237
2019	205 201	139 825	51 892	22 828
2020	204 186	143 350	50 820	24 010
2021	200 876	145 976	52 236	25 420
2022	205 549	148 159	52 515	26 504

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

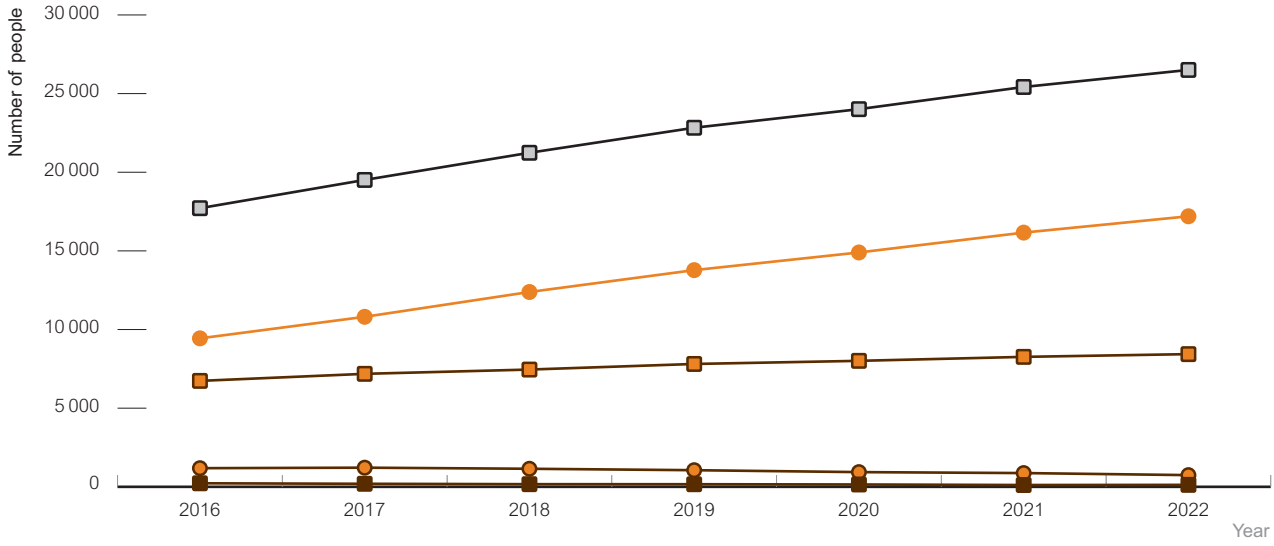
Source: WHO Collaborating Centre for Viral Hepatitis, Doherty Institute; see Methodology for detail.

Hepatitis B treatment

While treatment for hepatitis B is not curative, it can reduce morbidity and mortality associated with infection. Treatment controls viral replication and resulting liver damage, which profoundly reduces progression to advanced liver disease and hepatocellular carcinoma. In general, people who are chronically infected but do not have any signs of significant viral replication or active liver damage do not need treatment. However, it is important to closely monitor liver health with regular (at least annual) liver function tests, liver fibrosis assessment, and quantitative viral DNA tests. Treatment for hepatitis B should be considered for people with elevated hepatitis B viral load, abnormal liver function tests, or significant liver fibrosis.

From the start of 2017 to the end of 2022, there was a 50% increase in the number of people who were dispensed hepatitis B antiviral treatment, from 17 714 to 26 504 (Figure 9). However, the population of people living with chronic hepatitis B has also grown in recent years (see The hepatitis B diagnosis and care cascade, on 14). Of people who received hepatitis B antiviral treatments in 2020, 65% received entecavir, and 32% received tenofovir (Figure 9).

Figure 9 Number of people dispensed antiviral drugs for hepatitis B, 2016–2022, by drug type



	2016	2017	2018	2019	2020	2021	2022
adefovir	225	193	168	165	149	115	125
entecavir	9 439	10 808	12 386	13 776	14 899	16 162	17 199
lamivudine (hep B)	1 185	1 217	1 148	1 057	935	874	744
tenofovir	6 735	7 183	7 455	7 811	8 009	8 262	8 436
any drug	17 714	19 510	21 237	22 828	24 010	25 420	26 504

Note: Excludes tenofovir dispensing for HIV co-infected patients. Patients on telbivudine and interferonalfa-2b are excluded; there were no more than 35 for in any year.

Source: Pharmaceutical Benefits Scheme. Excludes temporary residents who are ineligible for Medicare. See Methodology for detail.

6 Hepatitis B prevention

Vaccination is the cornerstone of hepatitis B primary prevention. Other strategies to protect people from acquiring hepatitis B infection include use of sterile needles and syringes and ancillary equipment among people who inject drugs, condom use, universal precautions in healthcare settings, monitoring of pregnant women living with chronic hepatitis B and their babies, and screening of blood donors [8]. Secondary prevention strategies to reduce the risk of progression to hepatocellular carcinoma include improving access to diagnosis, monitoring, and antiviral treatment for those with evidence of active liver disease. Data regarding the uptake of this treatment will be presented in forthcoming reporting.

Hepatitis B vaccination

Patterns of hepatitis B infection in Australia should be interpreted with knowledge of the history of hepatitis B immunisation programs. In the Northern Territory, hepatitis B screening was introduced for all pregnant women and vaccination to infants born to mothers living with chronic infection in 1985; universal infant vaccination was implemented in 1990, and a catch-up program for children aged 6 to 16 years was introduced in 1998. In other states and territories, hepatitis B vaccination of all infants commenced in 2000, and a universal adolescent (children aged 11 to 14 years) school-based hepatitis B vaccination catch-up program commenced in 1998 in Victoria and Tasmania, in 1999 in South Australia and the Australian Capital Territory, in 2002 in Western Australia, in 2004 in New South Wales, and in 2007 in Queensland (Figure 10) [9].

Between 2017 and 2022, hepatitis B vaccination coverage rates for non-Indigenous children remained high in Australia, between 94% and 96% (Figure 11). Among Aboriginal and Torres Strait Islander children aged 12 months, the vaccination coverage rate declined from 96% in 2017 to 90% in 2022. Among non-Indigenous children and Aboriginal and Torres Strait Islander children aged 24 months, vaccination coverage rates remained over 95% between 2017 and 2022, reaching 96% in 2022 for both populations. (Figure 11).

Figure 10 Roll-out of hepatitis B vaccination in Australia, by year

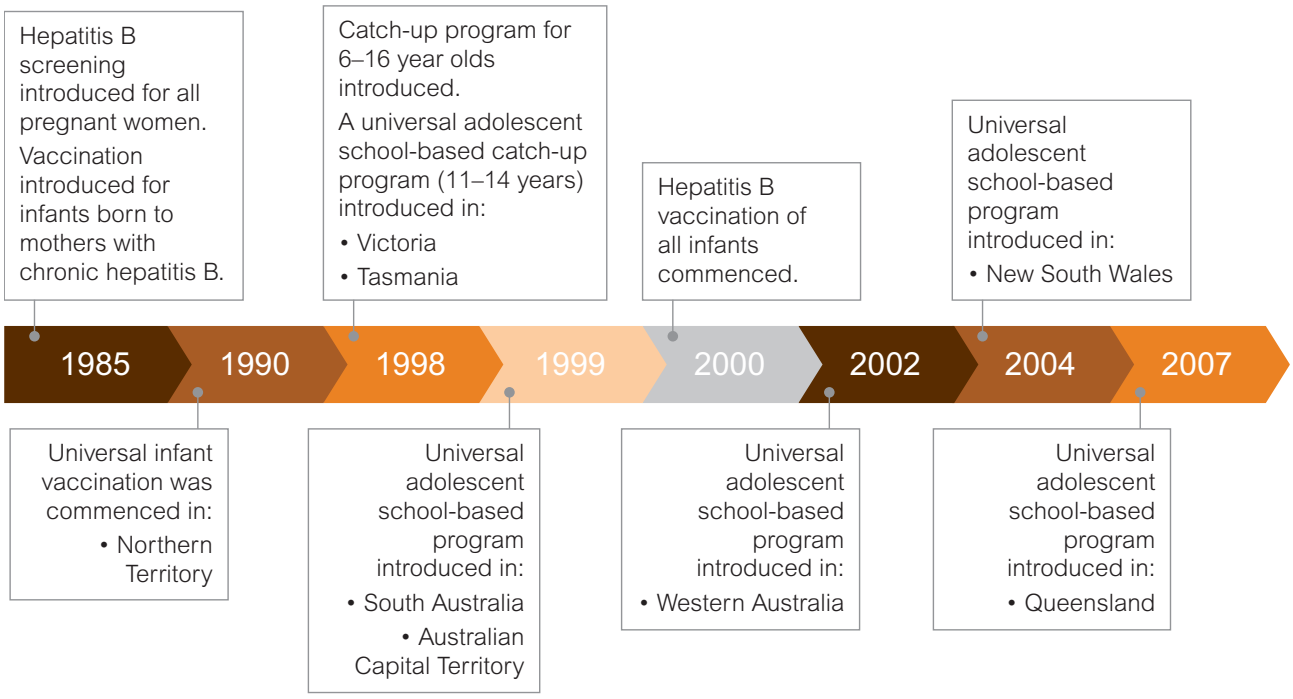
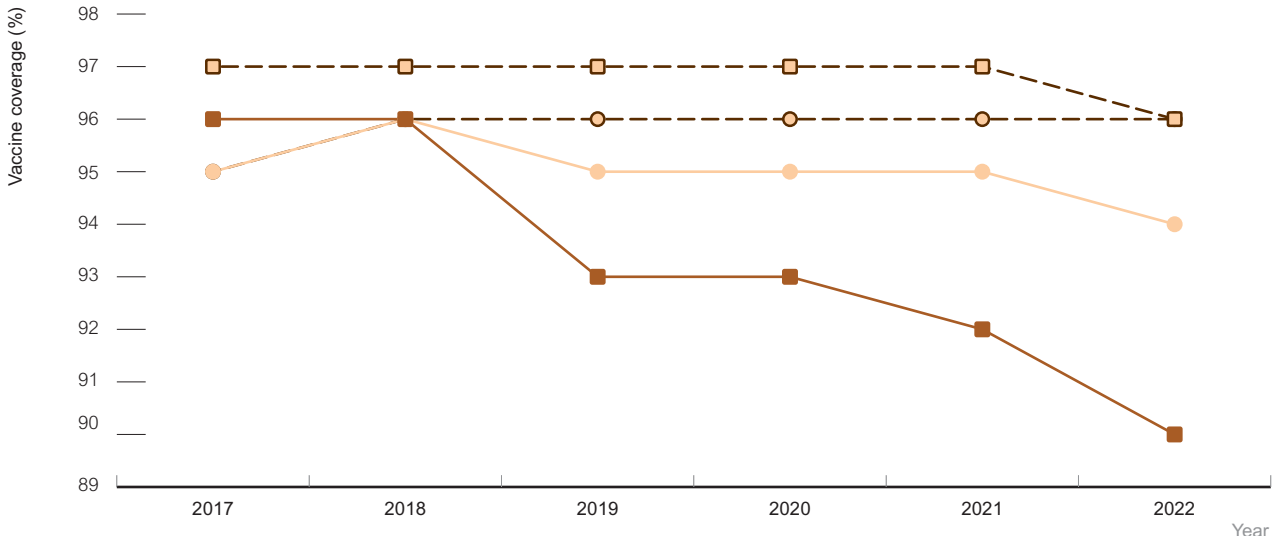


Figure 11 Hepatitis B vaccination coverage estimates at 12 and 24 months by Aboriginal and Torres Strait Islander status, 2017 – 2022



	2017	2018	2019	2020	2021	2022
Aboriginal and Torres Strait Islander children 12 months (%)	96	96	93	93	92	90
Aboriginal and Torres Strait Islander children 24 months (%)	97	97	97	97	97	96
Non-Indigenous children 12 months (%)	95	96	95	95	95	94
Non-Indigenous children 24 months (%)	95	96	96	96	96	96

Source: National Centre for Immunisation Research and Surveillance Australia; see Methodology for detail.

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