NSW Health

NSW Hepatitis B Annual Data Report | 2024

2024

NSW GOVERNMENT

Contents

Glossary of terms **3**
Key Messages **4**
Data Summary **4**
NSW Hepatitis B Strategy 2023 – 2026 ..... **5**
NSW Health Acknowledgment **5**
Progress towards NSW Hepatitis B Strategy targets **6**
1. Prevention 7
2. Early Diagnosis 9
3. Linkage to care 11
4. Access and Equity 18
Appendices **19**
Appendix A: Hepatitis B notifications 19
Appendix B: Hepatitis B testing 22
Appendix C: Hepatitis B treatment 23
Appendix D: Data sources 24

SHPN (CPH) 251082
ISBN 978-1-74231-330-6

Glossary of terms

APDC	Admitted Patient Data Collection
ASHM	Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine
CC	Central Coast Local Health District
CHB	Chronic hepatitis B
DC	Decompensated cirrhosis
FW	Far West Local Health District
GP	General practitioner
HBV	Hepatitis B virus
HCC	Hepatocellular carcinoma
HNE	Hunter New England Local Health District
IS	Illawarra Shoalhaven Local Health District
LHD	Local Health District
M	Murrumbidgee Local Health District
MBS	Medicare Benefits Schedule
MNC	Mid North Coast Local Health District
NBM	Nepean Blue Mountains Local Health District
NCIMS	Notifiable Conditions Information Management System
NNSW	Northern NSW Local Health District
NS	Northern Sydney Local Health District
NSW	New South Wales
PBS	Pharmaceutical Benefits Scheme
RBDM	Registry of Births, Deaths and Marriages
SES	South Eastern Sydney Local Health District
SNSW	Southern NSW Local Health District
SWS	South Western Sydney Local Health District
SYD	Sydney Local Health District
UNSW	University of New South Wales
WHO	World Health Organisation
WNSW	Western NSW Local Health District
WS	Western Sydney Local Health District

Key Messages

Data Summary

Hepatitis B is a blood-borne virus and is the predominant cause of liver cancer. Immunisation remains the most effective primary prevention strategy against hepatitis B infection. In 2024, the infant immunisation coverage in NSW was 95.8% at 24 months of age. In addition, public hospitals are required to screen all pregnant women for hepatitis B and all neonates born to hepatitis B positive mothers must receive hepatitis B immunoglobulin within 12 hours of birth. These prevention strategies aim to reduce mother-to-child transmission of hepatitis B.

Early diagnosis, regular monitoring, and treatment (where indicated), can prevent adverse health outcomes for people living with chronic hepatitis B. In 2024, laboratories in NSW performed 596,749 hepatitis B surface antigen tests and the hepatitis B rate was 26 notifications per 100,000 population (2,115 notifications). The Kirby Institute, University of NSW (UNSW) reported a decline in the proportion of late hepatitis B diagnosis among people presenting with hepatitis B-related liver cancer in NSW in 2023 compared to 2022, however the proportion of late hepatitis B diagnosis among people presenting with liver failure increased.

Modelling by WHO Collaborating Centre for Viral Hepatitis at the Doherty Institute has estimated 77,844 people were living with chronic Hepatitis B in NSW. In 2024, Medicare Benefits Schedule (MBS), reported 12,755 hepatitis B viral load tests for monitoring only (no treatment) and a further 12,341 people were dispensed hepatitis B antiviral treatment through the Pharmaceutical Benefits Scheme (PBS).

While NSW is making progress towards achieving the NSW Hepatitis B Strategy target of 20% of people living with hepatitis B receive treatment, significant improvements are required to reach the target of 100% of people engaged in ongoing care. Linkage to care is defined as a person receiving either viral load monitoring or antiviral treatment for their chronic hepatitis B. Primary care services, particularly general practices, play a key role in chronic hepatitis B care. Engaging general practitioners (GPs) and other primary care providers is a priority under the Strategy to improve linkage to care. In 2024, GPs requested 62% of MBS viral load tests and prescribed 29% of antiviral treatment through the PBS. NSW Health will continue to work with partners to improve initiatives that support screening and clinical management in primary care settings.

Most people living with chronic hepatitis B in NSW were born overseas. In 2020, the most common countries of birth were China and Vietnam, together representing more than one-third of people living with chronic hepatitis B in NSW[1]. However, the most common country of birth varies between Local Health District's (LHDs). Data from the Centre for Social Research in Health, UNSW, shows experiences and expressions of hepatitis B-related stigma and discrimination persist. The NSW Hepatitis B Strategy prioritises efforts to address these challenges.

Hepatitis B remains a substantial public health issue in NSW. Improving access to care, regular monitoring, and treatment are required to improve the health outcomes and wellbeing of people with chronic hepatitis B infection and to prevent liver cancer.

[1] MacLachlan, J. Viral Hepatitis Mapping Project: Estimates of hepatitis B prevalence, treatment, and care in NSW by Local Health District Summary Report 2020. The Doherty Institute; 2020. https://www.health.nsw.gov.au/hepatitis/Documents/nsw-hepatitisb-lhd-mapping-report-2022.pdf

NSW Hepatitis B Strategy 2023 – 2026

NSW has committed to supporting the National and World Health Organization (WHO) strategic goals to eliminate hepatitis B by 2030. The NSW Hepatitis B Strategy 2023-2026 (the Strategy) was launched in February 2023 and provides a system-wide framework for achieving hepatitis B elimination in NSW with a focus on four pillars:

1. **Prevention:** Prevent new infections and chronic disease.
2. **Early Diagnosis:** Diagnose infection and normalise regular testing to avoid late diagnosis.
3. **Linkage to care:** Appropriately treat and regularly monitor people living with chronic hepatitis B. Facilitate assessment of individuals at higher risk of liver disease and comorbidities.
4. **Access and Equity:** Enable equitable access to services, reduce hepatitis B-related stigma, and remove barriers to seeking healthcare.

The Hepatitis B Annual Data Report (this document) is published each year to report on progress towards the Strategy targets. This data report will be used to adjust the NSW approach to hepatitis B, including responding to new and emerging issues. The NSW Hepatitis B Strategy outlines 11 targets, however some indicators are not available. This report includes data on 9 targets.

NSW Health Acknowledgment

NSW Health acknowledges the Traditional Custodians of country throughout NSW and their connections to land, sea and community. We pay our respects to their Elders past and present and extend that respect to all Aboriginal people today.

This artwork, titled Shared Journeys, was created by Charmaine Mumbulla. It features weaving lines of land and waterways found on Country throughout NSW. Together they symbolise connection and togetherness on a shared journey towards sexual health.

NSW Health also recognises all communities and individuals impacted by and at risk of hepatitis B. NSW Health recognises the ongoing negative impacts of stigma and societal discrimination that people impacted by hepatitis B can experience.

In this report, Aboriginal and Torres Strait Islander people are referred to as Aboriginal people in recognition that Aboriginal people are the original inhabitants of NSW.

Progress towards NSW Hepatitis B Strategy targets

The Strategy uses 2020 as the baseline year for prevention, early diagnosis and linkage to care targets to establish long-term trends from before the COVID-19 pandemic. This avoids data discrepancies caused by service disruptions during the pandemic and is in line with the National Hepatitis B Strategy. The Strategy uses 2021 as the baseline for access and equity targets as data are not available for 2020.

Prevention

Target	Baseline (2020)	2024	2026 Target
95% or higher hepatitis B childhood vaccination coverage.*	97%	95.8%	95%
100% of pregnant women are screened for hepatitis B .†	-	99.4%	100%

Early diagnosis

Target	Baseline (2020)	2023	2026 Target
90% of people living with hepatitis B are diagnosed.‡	80%	78%	90%
Less than 10% of late diagnosis among people presenting with liver failure or liver cancer. §	25% (DC) 23% (HCC)	33%(DC) 20%(HCC)	<10%

DC = Decompensated cirrhosis; HCC = Hepatocellular carcinoma

Linkage to care

Target	Baseline (2020)	2023	2026 Target
100% of people living with hepatitis B receive care. ‡	27%	29%	100%
20% of people living with hepatitis B receive antiviral treatment. ‡	13%	15%	20%
20% reduction in hepatitis B-related mortality. §	68 deaths attributed to hepatitis B	70	54

Access and Equity

Target	Baseline (2021)	2024	2026 Target
75% reduction in discriminatory attitudes held towards people at risk of or living with hepatitis B by healthcare workers.	31%	30%	8%
75% reduction in discriminatory attitudes held towards people at risk of or living with hepatitis B by the general public.	49%	34%	12%

*Children fully vaccination with at least 3 doses of hepatitis B vaccine (excluding birth dose) measured at 24 months of age. Hepatitis B birth dose vaccination is not calculated in this baseline target. See NSW Mothers and Babies Report for information about hepatitis B birth dose vaccination.

† Analysis uses MatIQ extract dated 15 September 2025. Excludes all babies born in Northern Beaches Hospital, private hospitals or delivered by independent midwives. This data represents approximately 75% of all mothers who birthed in New South Wales.

‡ Data used to set targets is based on estimates and modelling undertaken by the WHO Collaborating Centre for Viral Hepatitis, the Doherty Institute, using NSW data from the National Surveillance for Hepatitis B indicators: Measuring the progress towards the targets of the national hepatitis B strategy annual reports.

§ Data used to set baseline and targets is based on data analysis undertaken by the Kirby Institute, University of NSW (UNSW). Data extracted 31 December 2023 (NCIMS & APDC). The baseline has been updated due to change in historical NCIMS and APDC data.

1. Prevention

Vaccination

Population-wide hepatitis B immunisation programs are the most effective and cost-effective public health measure to prevent disease. The NSW Immunisation Program aims to minimise the incidence and prevalence of vaccine preventable diseases, including hepatitis B. In NSW, all infants are offered hepatitis B vaccine at birth, 6 weeks, 4 months and 6 months of age in accordance with the NSW Childhood Immunisation Schedule.

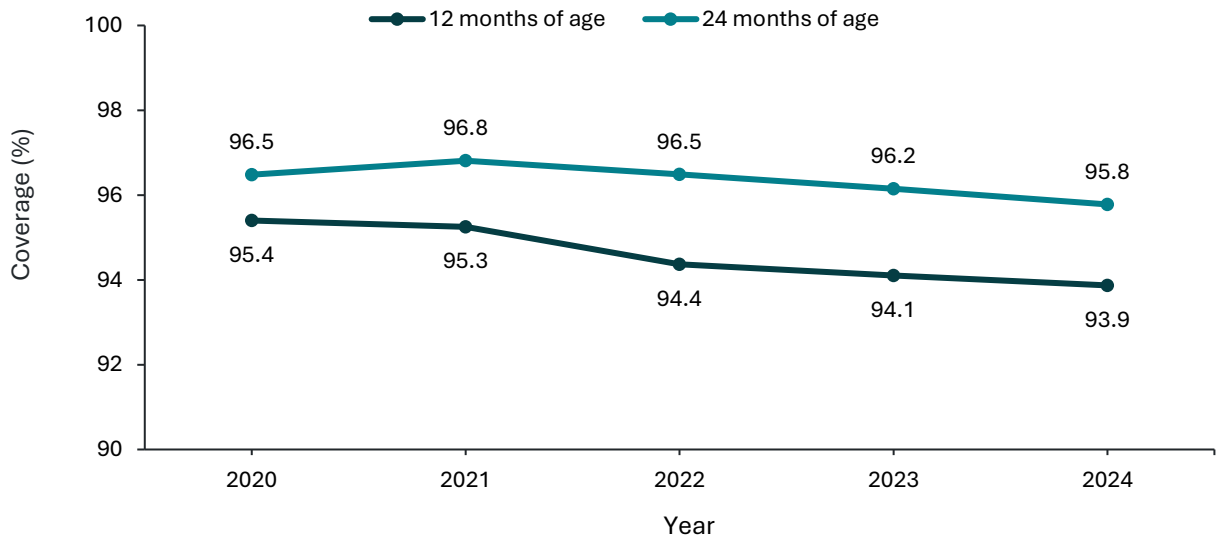
Hepatitis B vaccination is also recommended and free to eligible adult population groups. While the risk of chronic infection is higher when exposed to hepatitis B early in life, identifying and offering vaccination to adults who have not been vaccinated plays a critical role in preventing chronic infection and transmission.

1.1 Hepatitis B vaccination among infants

In 2024, 95.8% of all infants in NSW were fully vaccinated against hepatitis B by 24 months of age (Figure 1). Full vaccination for infants is defined as receiving hepatitis B vaccination at 6 weeks, 4 and 6 months of age. Delays in vaccination as well as underreporting likely influence the 1.9 percentage points difference in immunisation coverage between 12 and 24 months of age.[2]

The NSW Hepatitis B Strategy aims for 95% or higher hepatitis B childhood vaccination coverage, including birth dose. Information about hepatitis B birth dose vaccination in NSW and by Local Health District is available in the NSW Mothers and Babies Report.

Figure 1: Proportion of infants in NSW who have received 3 doses of hepatitis B vaccine (measured at 12 and 24 months of age) 2020-2024



Data source: Commonwealth Coverage Reports, 2020-2024. Note: Y-axis starts at 90% coverage.

[2] Law C, McGuire R, Ferson MJ *et al,*; NSW Public Health Network AIR Study Group. Children overdue for immunisation: a question of coverage or reporting? An audit of the Australian Immunisation Register. Aust N Z J Public Health. 2019 Jun;43(3):214-220. doi: 10.1111/1753-6405.12891b.

Screening of pregnant women

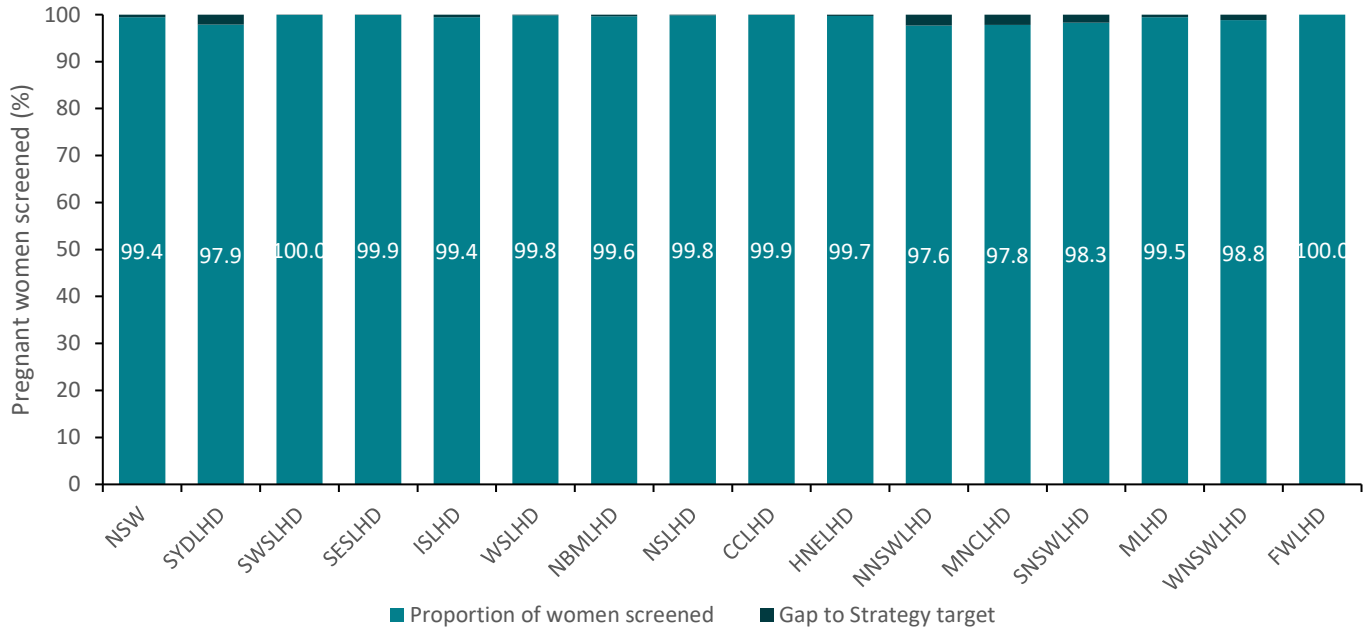
In NSW, all pregnant women must be offered screening and information about hepatitis B. All mothers with chronic hepatitis B and their babies must be prioritised and managed in accordance with guidelines to prevent mother-to-child transmission of hepatitis B. The Neonatal and Infant Hepatitis B Prevention and Vaccination Program Policy Directive specifies the requirements for neonatal hepatitis B prevention and vaccination in NSW.

This data report monitors and reports infant vaccination coverage, prevention and treatment measures for babies born to hepatitis B positive mothers. All public hospitals are required to locally monitor and report on neonatal prevention and treatment measures. NSW Health recommends private hospitals implement neonatal hepatitis B prevention and vaccination procedures as outlined in the Neonatal and Infant Hepatitis B Prevention and Vaccination Program Policy Directive.

1.2 Hepatitis B screening among pregnant women

In 2024, 99.4% of pregnant women in NSW public hospitals were screened for hepatitis B (Figure 2). All Local Health Districts (LHDs) achieved or almost achieved the Strategy target of 100% of pregnant women screened for hepatitis B. This indicates strong statewide compliance and implementation of screening guidelines.

Figure 2: Proportion of pregnant women screened for hepatitis B, NSW public hospital births by local health district, 2024



Data source: Quality Improvement Data System MatIQ, Clinical Excellence Commission. Analysis uses MatIQ extract dated 15 September 2025. Excludes all babies born in Northern Beaches Hospital, private hospitals or delivered by independent midwives. This data represents approximately 75% of all mothers who birthed in New South Wales.

2. Early Diagnosis

Most adults who contract hepatitis B will naturally resolve or 'clear' the infection, so they are no longer infectious and have lifelong immunity to hepatitis B. However, about 15% of infected adults do not clear the virus and develop chronic hepatitis B. This is defined as an infection that persists for more than six months. By contrast, about 85–90% of infants infected at birth, or in early childhood, will develop chronic hepatitis B[3].

Early diagnosis of hepatitis B is crucial, as 15–40% of people living with untreated chronic hepatitis B will develop liver failure (a sudden deterioration in liver function known as decompensated cirrhosis) or hepatocellular carcinoma (the most common type of primary liver cancer).

The NSW Hepatitis B Strategy aims to have 90% of people living with hepatitis B diagnosed. Current modelling by the WHO Collaborating Centre for Viral Hepatitis at the Doherty Institute estimates that in 2023, 78% of people living with chronic hepatitis B in NSW had been diagnosed[4].

Late diagnosis

Late diagnosis of hepatitis B can cause adverse health outcomes and is defined as a hepatitis B diagnosis within two years prior, at the time of, or after admission for liver failure or liver cancer. Late diagnosis is a missed opportunity to reduce hepatitis B related morbidity and mortality.

The Strategy aims to diagnose early and normalise regular testing to avoid poor health outcomes. Primary healthcare services, including general practice, play a key role in hepatitis B detection, management and liver cancer prevention. Research conducted by the WHO Collaborating Centre for Viral Hepatitis at the Doherty Institute[5] found that 95% of people diagnosed with late hepatitis B had previously visited a general practitioner (on average two healthcare visits per year) and 89% had a blood test for other conditions in the 10 years prior to the late diagnosis. This highlights opportunities for timely detection of hepatitis B and early intervention had been missed.

The Strategy aims to have less than 10% of people with hepatitis B-associated liver failure or liver cancer to be diagnosed late with hepatitis B. There has been limited progress in hepatitis B late diagnoses among people with liver cancer, and an increase in late diagnoses among people with liver failure since 2020.

[3] Hepatitis B Consensus Statement Working Group. Australian recommendations for the management of hepatitis B infection: a consensus statement 2022. Melbourne. Gastroenterological Society of Australia.
[4] Nguyen A, Romero N, MacLachlan JH, Cowie BC. National Surveillance for Hepatitis B Indicators: Measuring the progress towards the targets of the National Hepatitis B Strategy – Annual Report 2022. Melbourne: WHO Collaborating Centre for Viral Hepatitis, The Doherty Institute; 2024.
[5] Mnatzaganian, G, MacLachlan JH, Allard N, Brown C, Rowe S, Cowie, BC. (2023) Missed opportunities for diagnosis of hepatitis B and C in individuals diagnosed with decompensated cirrhosis or hepatocellular carcinoma. Journal of Gastroenterology and Hepatology, 38: 976–983. https://doi.org/10.1111/jgh.16162.

2.1 Hepatitis B liver-related late diagnosis

The Centre for Health Record Linkage (CheReL) links multiple sources of data providing a more complete picture of the health of the population. Data from the most recent data linkage in 2023 included all hepatitis B notifications (1993 to March 2023), hospital admissions (July 2001 to March 2023) and deaths (1993 to 2023). These data were used to evaluate the observed trends in late diagnosis.

The most recent analysis by the Viral Hepatitis Clinical Research Program at the Kirby Institute, UNSW, reported that among people with hepatitis B-related decompensated cirrhosis, 33% (21 individuals) had been diagnosed late in 2023 (Figure 3). Among people with hepatitis B-related hepatocellular carcinoma, 20% (10 individuals) had been diagnosed late in 2023 (Figure 4).

Figure 3: Proportion of people presenting with decompensated cirrhosis (DC) who had late hepatitis B diagnosis, NSW, 2016–2023

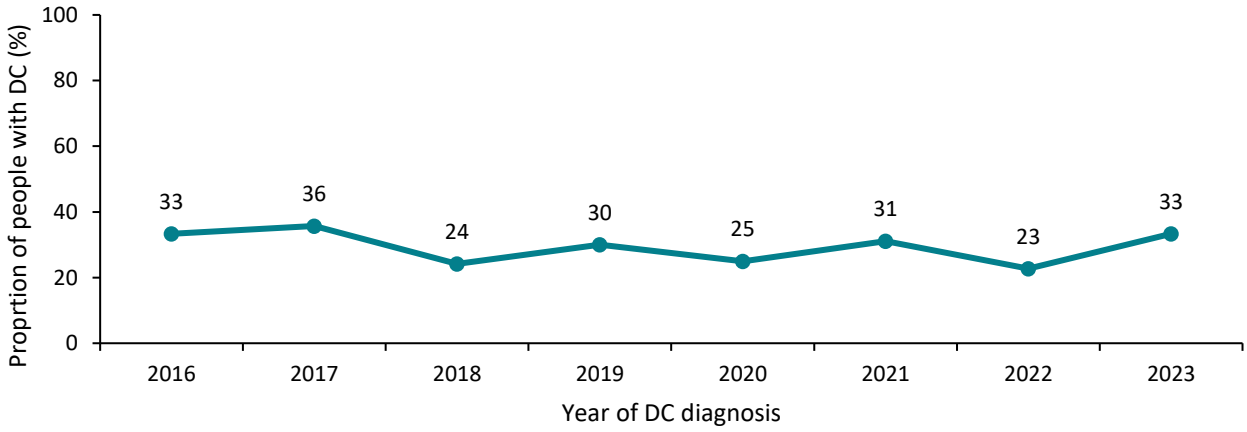
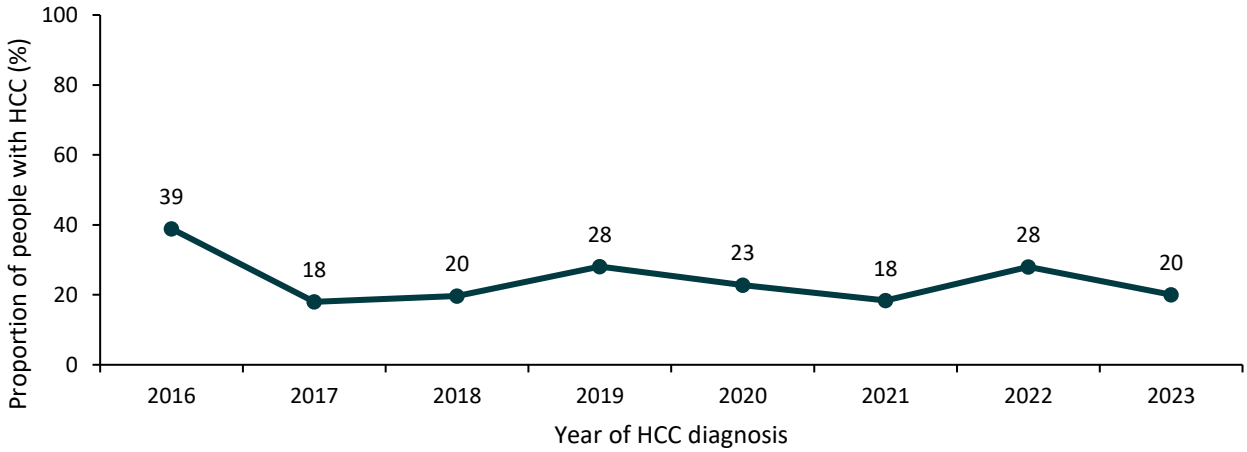


Figure 4: Proportion of people with hepatocellular carcinoma (HCC) who had late hepatitis B diagnosis, NSW, 2016–2023



Data source: NCIMS (1993- December 2023) and APDC (January 2002- December 2023) (via CHeReL), NSW Health. Year is based on first hospital presentation with DC/HCC (proxy for DC/HCC diagnosis). Late HBV diagnosis is defined by an HBV notification after, at the time or within 2 years before DC or HCC diagnosis. ICD-10 codes for DC use primary or secondary diagnosis fields for DC include: ascites (R18.0), bleeding oesophageal varices (I85.0, I98.3, and I98.21), chronic hepatic failure (including hepatic encephalopathy; K72.1, K72.9), alcoholic hepatic failure (K70.4), or hepatorenal syndrome (K76.7). ICD-10 codes for HCC use primary or secondary diagnosis fields for liver cell carcinoma (C22.0). Date extracted 31 December 2023 (NCIMS) & 31 December 2023 (APDC). Data analysis: Viral Hepatitis Clinical Research Program, Kirby Institute, UNSW.

Note: Data has been updated due to change in historical NCIMS and APDC data and should not be compared to previous Hepatitis B Data Reports.

3.Linkage to care

Linkage to care is defined as a person receiving either monitoring or antiviral treatment for chronic hepatitis B. While there is no cure for hepatitis B, it is important that people with chronic hepatitis B have regular monitoring of their liver function and blood tests to assess stage of infection and whether antiviral treatment is needed. Antiviral treatment can prevent progression of chronic hepatitis B to liver disease and lower the risk of liver cancer. Approximately 14,000 people living with hepatitis B require antiviral treatment, however everyone living with hepatitis B should be monitored at least once per year to detect changes that may prompt the need for treatment. Regular screening for liver cancer is also recommended depending on the stage of infection.

Current modelling by the WHO Collaborating Centre for Viral Hepatitis at the Doherty Institute estimates 77,844 people are living with chronic hepatitis B in NSW. In 2023, 29.3% were engaged in care (monitoring or antiviral treatment). With the current trajectory in care uptake, NSW will not reach 50% engaged in care after 2050[5]. NSW has an ambitious target of 100% of people living with hepatitis B in NSW receiving care by 2026.

NSW is achieving high rates of hepatitis B diagnosis, however significant improvements in the uptake of care (monitoring or antiviral treatment) are required to reduce morbidity and mortality. A key focus of the Strategy is to link all people diagnosed with hepatitis B into timely care and appropriate treatment. NSW Health is committed to improving the models of care available, including locally coordinated and multidisciplinary models, and supporting screening and clinical management initiatives in primary care settings.

General practice and s100 community prescribers

While people living with chronic hepatitis B can be managed and treated by specialists in tertiary settings, hepatitis B s100 community prescribers are available in primary care settings. NSW Health partners with ASHM to provide training, authorisation and professional development for hepatitis B s100 community prescribers in NSW. At the end of 2024, there were 143 hepatitis B s100 community prescribers in NSW. 38% were in South Eastern Sydney, 21% in Sydney, 13% in Northern Sydney, 11% in Western Sydney, 9% in South Western Sydney, and 4% in Nepean Blue Mountains.

ASHM's prescriber map provides up-to-date information on the location and contract details of accredited hepatitis B prescribers in NSW. GPs who are not s100 accredited also have a responsibility in the diagnoses and ongoing monitoring of people living with hepatitis B.

3.1 Chronic hepatitis B monitoring

Monitoring is defined as a viral load test each year among people with chronic hepatitis B who are not receiving treatment. Annual hepatitis B viral load testing data for NSW residents are publicly available from Medicare Benefits Schedule statistics. These data are based on the date the test was processed by Services Australia and do not capture monitoring provided to inpatients in public hospitals or monitoring performed through the Department of Veterans' Affairs. Previous analyses and comparison with other source data by the Doherty Institute demonstrated that the vast majority of hepatitis B viral load testing are provided through Medicare.[6]

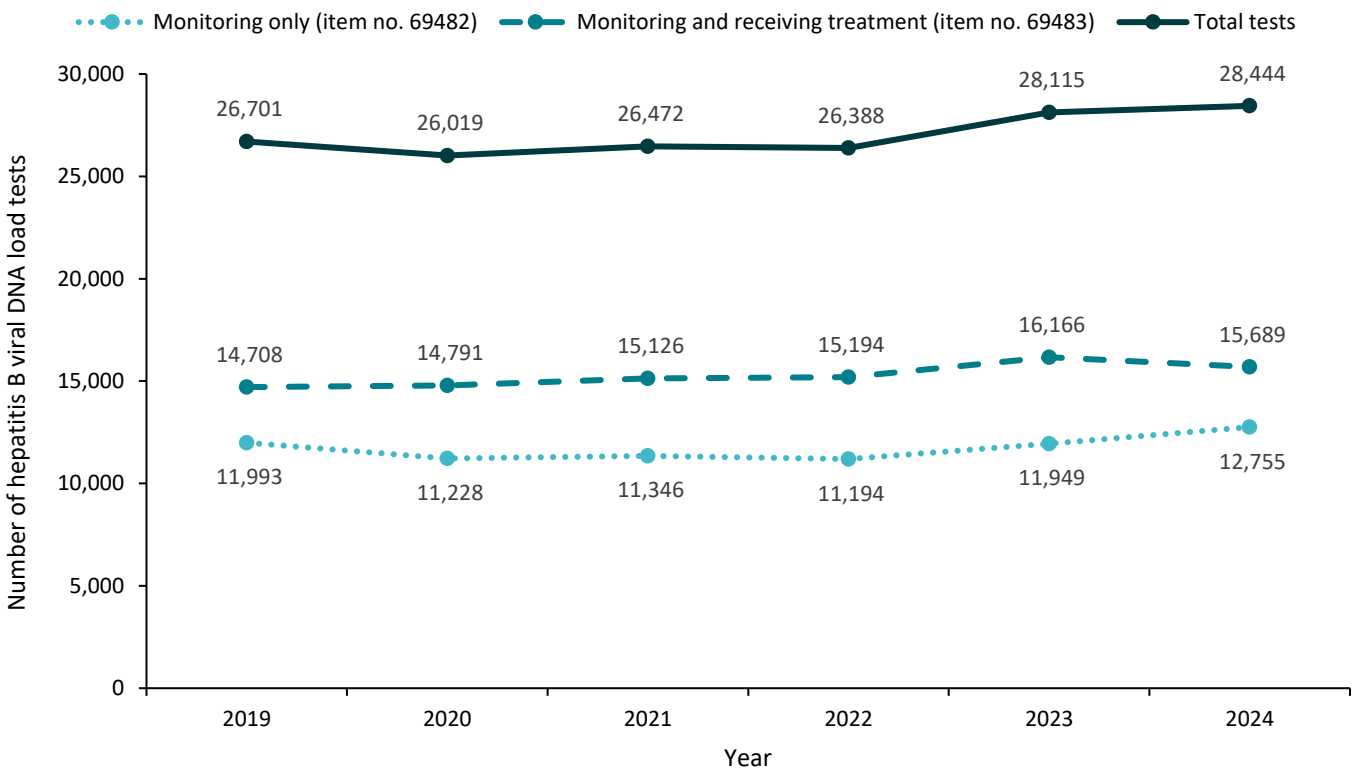
In 2024 Medicare reported 28,444 hepatitis B viral load tests in NSW, including 12,755 tests for people living with chronic hepatitis B who required monitoring only (45% total tests) and 15,689 viral load tests for people living with chronic hepatitis B and receiving antiviral treatment (55% of total tests) (Figure 5). Viral load testing for monitoring only (Medicare item number 69482), is limited to one test per patient in a 12-month period and provides a rough estimate of the number of people living with chronic hepatitis B who are monitored. In comparison, viral load testing for people receiving treatment (Medicare item number 69483) is limited to no more than four tests per patient in a 12-month period.

In 2024, viral load testing for monitoring increased 7% compared to 2023 (2023: N=11949, 2024: N=12,755). Changes in viral load tests for monitoring may reflect people transitioning from monitoring into treatment initiation, a decline in retention in care, or changes to testing patterns. Patient linked viral load data and treatment data are unavailable to monitor the progression of people living with chronic hepatitis B through the care cascade.

Of people with chronic hepatitis B living in NSW, approximately 16% received a viral load test billed through Medicare for monitoring (12,755/77,844). To meet the Strategy target, substantial improvements to engage and retain people in care are required, along with improved collection, linkage and reporting of surveillance data.

[6] MacLachlan JH, Romero N, Purcell I, Cowie BC. Viral Hepatitis Mapping Project: Hepatitis B National Report 2022. Darlinghurst, NSW, Australia: ASHM; 2024. https://ashm.org.au/vh-mapping-project/

Figure 5: Number of hepatitis B viral load tests in NSW between 2019 – 2024



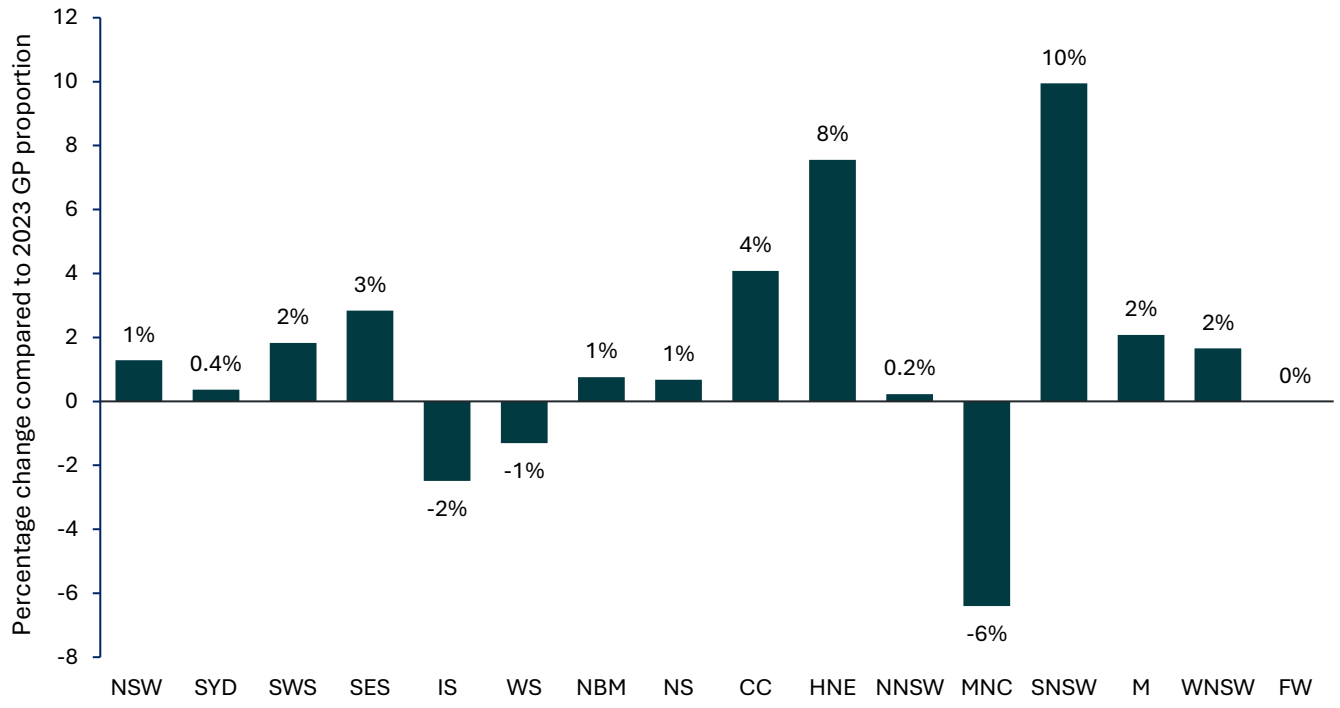
Data source: Medicare Benefits Schedule statistics, Department of Services Australia. Item 69482 is for quantitation of Hepatitis B viral DNA in patients who are Hepatitis B surface antigen positive and have chronic hepatitis B but are not receiving antiviral therapy. This item is applicable not more than once in a 12-month period per patient. Item number 69483 is for quantitation of Hepatitis B viral DNA in patients who are Hepatitis B surface antigen positive and who have chronic hepatitis B and are receiving antiviral therapy. This item is applicable not more than 4 times in a 12-month period per patient. NSW locality is based on the address of the patient at the time of claiming the service. Year is calculated based on the date the service was processed by Services Australia, not the date the service was provided. Data does not include HBV viral load tests provided to inpatients in public hospitals or HBV viral load tests that qualify for a benefit under the Department of Veterans' Affairs National Treatment Account.

3.2 Chronic hepatitis B monitoring in general practice

Primary healthcare services, including general practice, play a key role in providing education, testing, treatment, early diagnosis and monitoring services for hepatitis B and liver cancer prevention. Late diagnosis of hepatitis B is a missed opportunity to reduce hepatitis-B related morbidity and mortality.

In NSW in 2024, GPs requested 62% of hepatitis B viral load tests billed through Medicare (N=7,928) for people not receiving antiviral treatment. This was nearly the same as 2023 (61%, 7,235/11,803) (Figure 6). Twelve out of fifteen Local Health Districts observed an increase in viral load testing by GPs. Annual fluctuations in the proportion of GP requested viral load tests may reflect changes in service delivery and retention in care.

Figure 6: Percentage change in hepatitis B viral load tests for people not receiving antiviral treatment requested by General Practitioners by Local Health District of patient residence, 2023 – 2024.



Note: The bars represent the percentage change in the proportion of Hepatitis B viral load tests prescribed by GPs in 2024 compared against the proportion of Hepatitis B viral load tests prescribed by GPs in 2023 by LHD.

Table 1: Number of hepatitis B viral load tests for people not receiving antiviral treatment by General Practitioners via Medicare by Local Health District of patient residence, 2023 – 2024.

	NSW	SYD	SWS	SES	IS	WS	NBM	NS	CC	HNE	NNSW	MNC	SNSW	M	WNSW	FW
2023	7,235	1,046	1,600	755	84	1,825	100	1,488	62	114	15	35	11	34	44	16
2024	7,928	1,076	1,765	821	89	1,971	135	1,614	81	180	9	23	23	31	53	50

Data source: Medicare Benefits Schedule, Department of Services Australia. Item 69482 is for quantitation of Hepatitis B viral DNA in patients who are Hepatitis B surface antigen positive and have chronic hepatitis B but are not receiving antiviral therapy. This item is applicable not more than once in a 12-month period per patient. GP services are classified using the derived major specialty of the requester. Year is calculated based on the date the service was processed by Services Australia, not the date the service was provided. Local Health District is based on the address of the patient at the time of date of service. Figures for previous years differ from the 2023 Annual Report, which used Item 69482 by the *Registered Specialty of Requesting Provider (DOS) by NSW Health region*. The current report uses Item 69482 by the *Derived Major Specialty of Requesting Provider (DOP) by NSW Health region*,

3.3 Hepatitis B treatment

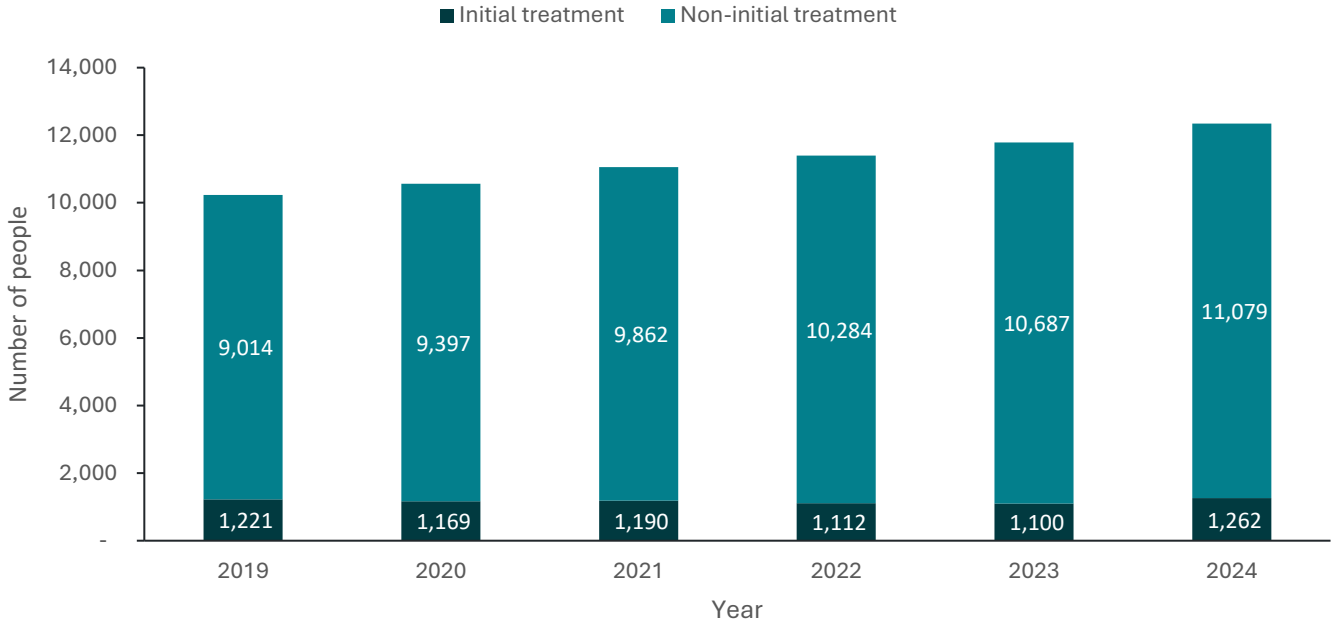
Antiviral treatment can slow the progression of cirrhosis, lower the risk of liver cancer, and improve long-term survival for some people with chronic hepatis B. Most people who start antiviral treatment, continue it for life. However, treatment is not recommended for most people with chronic hepatitis B.

According to modelled estimates by the WHO Collaborating Centre for Viral Hepatitis at the Doherty Institute[7], the proportion of people living with chronic hepatitis B in NSW receiving antiviral treatment has increased over time. In 2023, an estimated 30.2% of people living with chronic hepatitis B were eligible for treatment (23,509/77,844).

In 2024, 12,341 people were dispensed hepatitis B treatment in NSW through the Pharmaceutical Benefits Scheme (PBS) (Figure 8). This represents 52.5% of people with hepatitis B estimated to be eligible for treatment (N=23,509) and 16% of the estimated number of people living with hepatitis B in NSW in 2023 (N=77,844). In 2024, 10% of people who were dispensed treatment in NSW were receiving treatment for the first time (N=1,262).

For additional information, see Appendix C, Table 7 for residents dispensed hepatitis B treatment via the PBS by Local Health District.

Figure 7: People dispensed hepatitis B treatment, NSW, 2019 to 2024



Data source: Pharmaceutical Benefits Scheme. Indication is “Chronic hepatitis B infection”. The counting is applicable not more than once in a 12-month period per patient. Initial treatment refers to the first time of Hepatitis B treatment dispensed to patients via PBS. Year is calculated based on the date the supply. Local Health District is based on the address of the patient at the time of date of supply record in PBS. Data does not include HBV treatments provided to inpatients in public hospitals and PBS non-eligible patients.

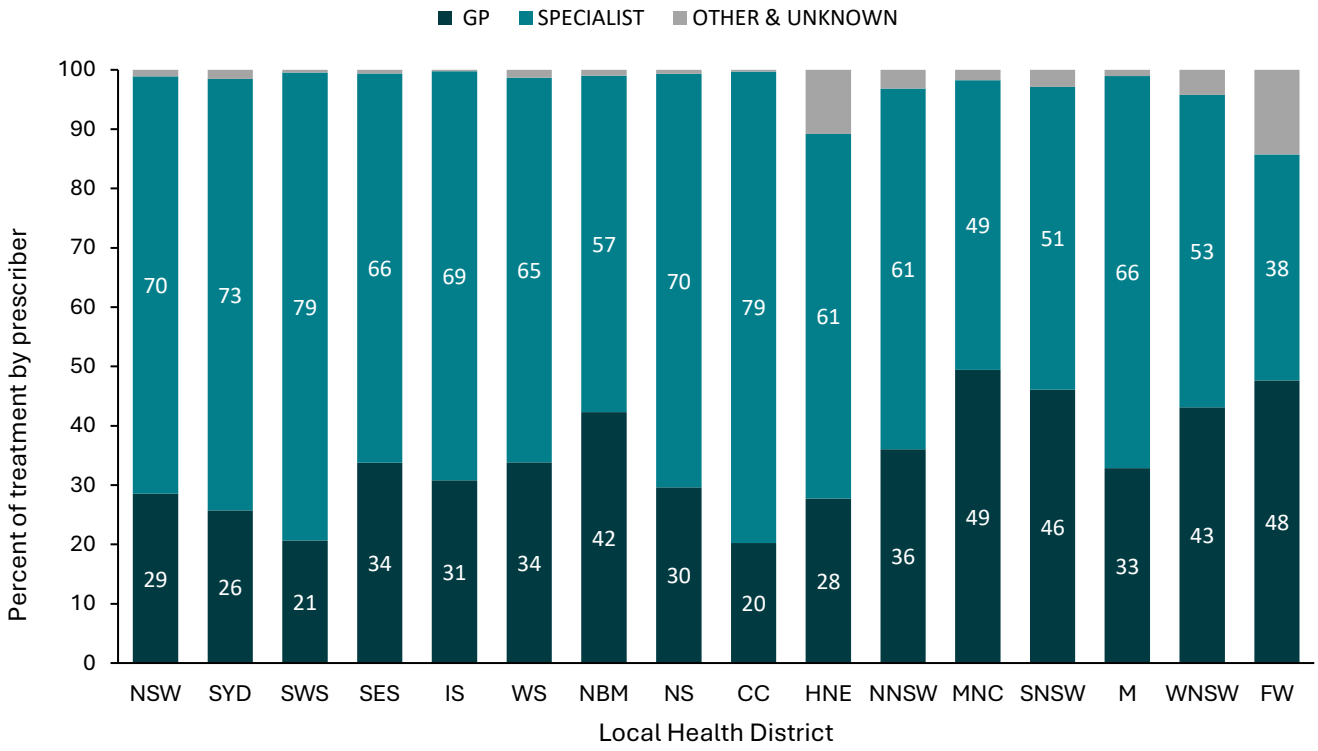
Note: Figure incorporates residents who were dispensed treatment in Justice Health settings.

[7] Modelled estimates from the National Surveillance for Hepatitis B Indicators: Measuring the progress towards the targets of the National Hepatitis B Strategy – Annual Report 2023

3.4 Hepatitis B treatment by prescriber type

GPs prescribed 29% (N=15,665) of hepatitis B treatments dispensed to NSW residents through the PBS (Figure 8 and Table 2). This was an increase compared to 2023 (26%). GPs prescribed more than 45% of treatments in three LHDs— Southern NSW LHD (46%), Far West LHD (48%), and Mid North Coast LHD (49%). These higher percentages of GP prescribing reflect local models of care that enables hepatitis B management in GP settings. This may be a result of reduced access to specialist services in the region and utilisation of s100 community prescribers.

Figure 8: Hepatitis B treatment by prescriber type and Local Health District of patient residence, 2024



Data source: Pharmaceutical Benefits Scheme. Indication is "Chronic hepatitis B infection". The count applies to patient treatments dispensed over a 12-month period.. Prescriber types are classified using the PBS benefit claim definition. Year is calculated based on the date the supply. Local Health District is based on the address of the patient at the time of date of supply record in PBS. Data does not include HBV treatments provided to inpatients in public hospitals and PBS non-eligible patients.

Note: Incorporates residents who were dispensed treatment in Justice Health settings.

Table 2: Hepatitis B treatments by prescriber type and Local Health District of patient residence, 2024

	NSW	SYD	SWS	SES	IS	WS	NBM	NS	CC	HNE	NNSW	MNC	SNSW	M	WNSW	FW
GP	15,665	1717	3,167	2416	271	3,926	386	2,554	139	300	172	168	129	95	215	10
Spec	38,580	4,849	12,102	4,694	606	7,532	518	6,008	546	664	290	166	143	191	263	8
Other	616	102	72	44	2	156	9	56	2	117	15	6	8	3	21	3
Total	54,861	6,668	15,341	7,154	879	11,614	913	8,618	687	1081	477	340	280	289	499	21

Data source: Pharmaceutical Benefits Scheme (PBS). GP = General practitioner, Spec = specialist and Other = Other & Unknown. This item counts patient treatments dispensed over a 12-month period. Prescriber types are classified using the PBS benefit claim definition. Year is calculated based on the date the supply. Local Health District is based on the address of the patient at the time of date of supply record in PBS. Data does not include HBV treatments provided to inpatients in public hospitals and PBS non-eligible patients.

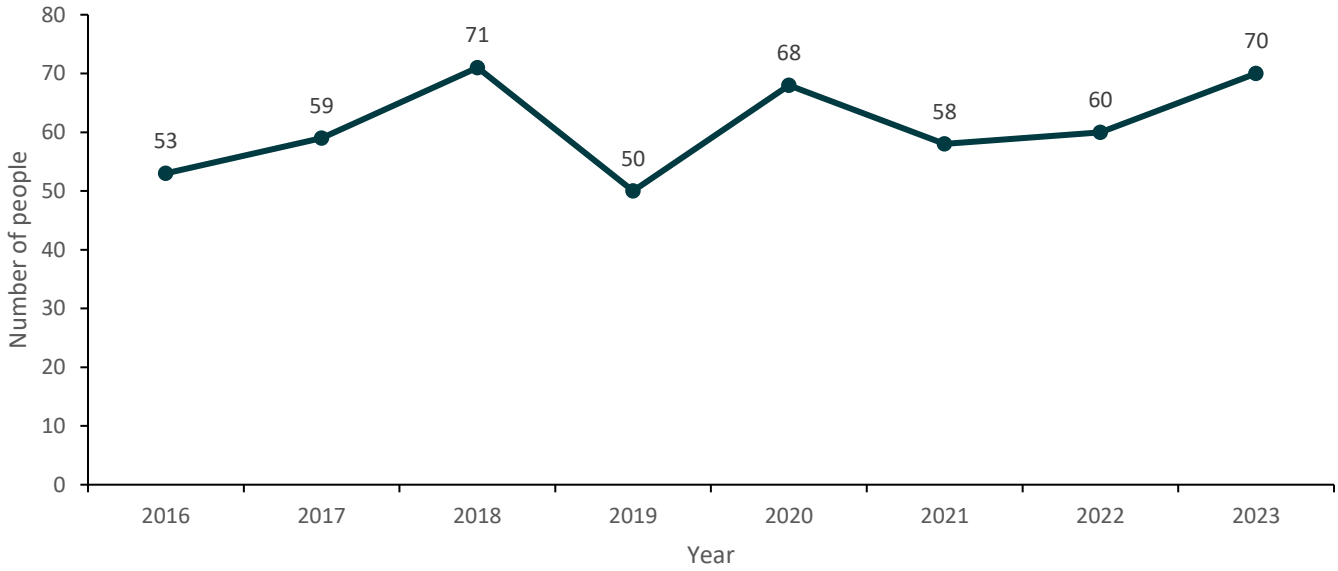
Note: Incorporates residents who were dispensed treatment in Justice Health settings. Data in previous Hepatitis B Data Reports reported on the number of treated persons rather than the number of treatments.

3.5 Hepatitis B-related mortality

Hepatitis B notification data from 1993 to December 2023 has been linked to administrative data sets for hospital admissions and death registrations to enable an estimation of the numbers of deaths attributable to hepatitis B.

In 2023, there were 70 deaths attributable to hepatitis B, representing a 32% increase in hepatitis B related mortality between 2016 and 2023 (Figure 9). The Strategy has a target of 20% reduction in hepatitis B attributable mortality.

Figure 9: Number of liver related deaths attributed to hepatitis B, NSW, 2016-2023



Data source: NCIMS (1993- December 2023) and APDC (January 2002- December 2023) (via CHeReL), NSW Health. Year is based on first hospital presentation with DC/HCC (proxy for DC/HCC diagnosis). Late HBV diagnosis is defined by an HBV notification after, at the time or within 2 years before DC or HCC diagnosis. ICD-10 codes for DC use primary or secondary diagnosis fields for DC include: ascites (R18.0), bleeding oesophageal varices (I85.0, I98.3, and I98.21), chronic hepatic failure (including hepatic encephalopathy; K72.1, K72.9), alcoholic hepatic failure (K70.4), or hepatorenal syndrome (K76.7). ICD-10 codes for HCC use primary or secondary diagnosis fields for liver cell carcinoma (C22.0). Date extracted 31 December 2023 (NCIMS) & 31 December 2023 (APDC). Data analysis: Viral Hepatitis Clinical Research Program, Kirby Institute, UNSW.

Note: Data has been updated due to change in historical NCIMS and APDC data and should not be compared to previous Hepatitis B Data Reports.

4. Access and Equity

The Strategy aims to enable equitable access to services, reduce hepatitis B-related stigma, and remove barriers to seeking healthcare. NSW Health acknowledges the structural, societal, community and individual barriers that impact access to services. Barriers can include stigma and discrimination, cultural, social and economic factors, inequitable access to services and legal needs. The Strategy aims to effectively address these barriers and to achieve a:

- 75% reduction in discriminatory attitudes held towards people at risk of or living with hepatitis B by healthcare workers.
- 75% reduction in discriminatory attitudes held towards people at risk of or living with hepatitis B by the general public.

4.1 Stigma and Discrimination

Stigma and discrimination can discourage people from accessing health care and treatment for hepatitis B. The Stigma Indicators Monitoring Project periodically collects data to monitor and measure the expression of stigma by health providers and the general public. The data collected is in relation to any experiences of stigma and discrimination within the past 12 months, as well as stigmatising experiences within health care settings by healthcare workers.

1. General public

In 2024, 34% of the general public living in NSW reported they would behave negatively towards other people because of their hepatitis B. This was a decrease from 49% in 2021. There was no significant difference between participants from NSW and participants from the rest of Australia.

2. Health care workers

In 2024, 30% of health care workers living in NSW who participated in the survey reported they would behave negatively towards other people because of their hepatitis B. There has been no significant change in self-reported behaviour since 2021. There was no significant difference between participants from NSW and participants from the rest of Australia.

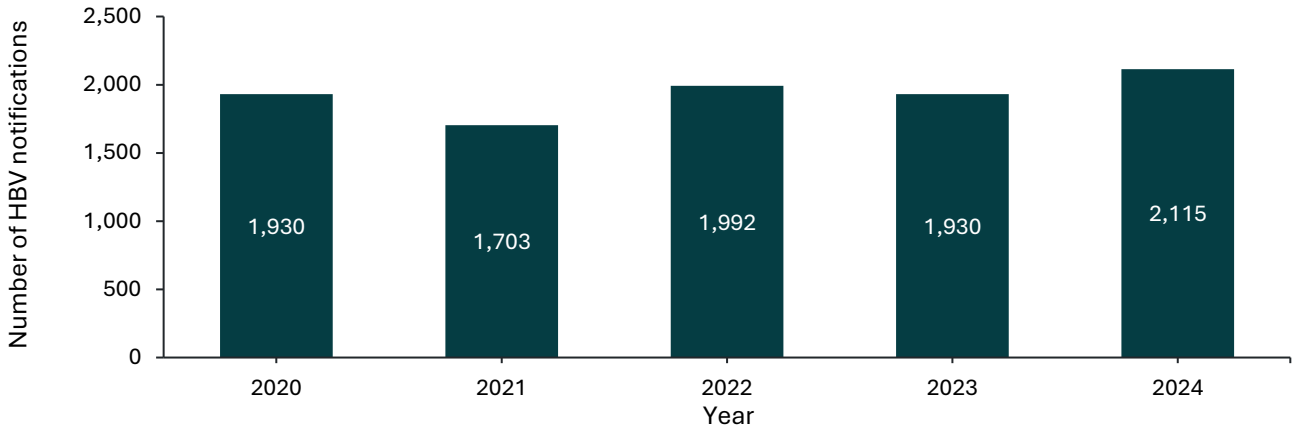
Appendices

Appendix A: Hepatitis B notifications

Hepatitis B notification data provides limited information about the epidemiology of hepatitis B infection as many infections are asymptomatic. As a result, people who are infected may never be tested, or only tested many years after infection. Laboratory reports do not distinguish between infections acquired recently and those acquired many years ago. Variations in the number of notifications may reflect differences in testing patterns over time rather than changes in the incidence of hepatitis B infection.

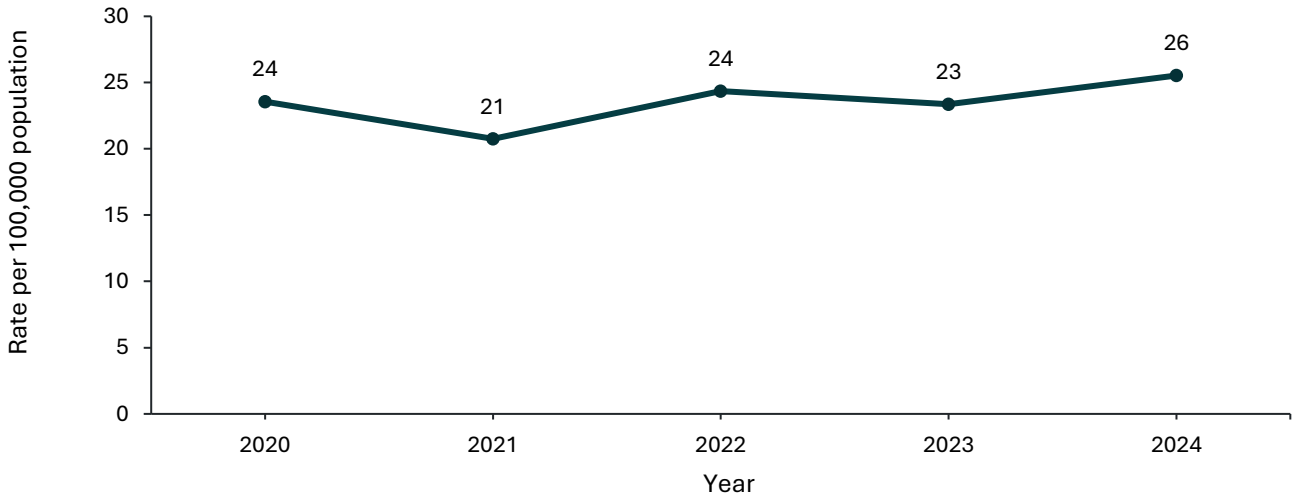
See the NSW infectious diseases data for additional information about hepatitis B notifications in NSW residents and by Local Health District.

Figure 10: Hepatitis B notifications, NSW, 2020-2024



Data source: NCIMS; data extracted 1 April 2025. Note: Excludes non-NSW residents. Year of notification is based on calculated onset date.

Figure 11: Hepatitis B notification rate, NSW 2020-2024



Data source: NCIMS, NSW Health and NSW Population Projections, NSW Department of Planning (via SAPHaRI); data extracted 1 April 2025. Note: Excludes non-NSW residents. Year of notification is based on calculated onset date.

Table 3: Hepatitis B notifications by gender, age group and Local Health District of residence, NSW 2020-2024

Characteristic	2020 N = 1,930[1]	2021 N = 1,703[1]	2022 N = 1,992[1]	2023 N = 1,930[1]	2024 N = 2,115[1]
Gender					
Male	1,004 (52.0%)	934 (54.8%)	1,081 (54.3%)	1,072 (55.5%)	1,099 (52.0%)
Female	924 (47.9%)	767 (45.0%)	909 (45.6%)	855 (44.3%)	1,011 (47.8%)
Unknown	2 (0.1%)	2 (0.1%)	2 (0.1%)	3 (0.2%)	5 (0.2%)
Age, median (Q1, Q3)	41 (33, 56)	43 (34, 56)	46 (36, 59)	45 (35, 58)	44 (35, 57)
Age group at diagnosis					
0-14	5 (0.3%)	3 (0.2%)	4 (0.2%)	6 (0.3%)	2 (0.1%)
15-19	18 (0.9%)	11 (0.6%)	21 (1.1%)	21 (1.1%)	19 (0.9%)
20-24	85 (4.4%)	64 (3.8%)	61 (3.1%)	67 (3.5%)	84 (4.0%)
25-29	164 (8.5%)	130 (7.6%)	117 (5.9%)	137 (7.1%)	149 (7.0%)
30-34	300 (15.5%)	262 (15.4%)	236 (11.8%)	213 (11.0%)	245 (11.6%)
35-39	305 (15.8%)	241 (14.2%)	262 (13.2%)	268 (13.9%)	306 (14.5%)
40-44	197 (10.2%)	221 (13.0%)	228 (11.4%)	227 (11.8%)	255 (12.1%)
45-49	163 (8.4%)	173 (10.2%)	202 (10.1%)	208 (10.8%)	206 (9.7%)
50-54	165 (8.5%)	140 (8.2%)	187 (9.4%)	177 (9.2%)	197 (9.3%)
55-59	159 (8.2%)	156 (9.2%)	178 (8.9%)	149 (7.7%)	178 (8.4%)
60-64	152 (7.9%)	110 (6.5%)	187 (9.4%)	169 (8.8%)	164 (7.8%)
65-69	104 (5.4%)	79 (4.6%)	143 (7.2%)	123 (6.4%)	136 (6.4%)
70-74	60 (3.1%)	66 (3.9%)	83 (4.2%)	70 (3.6%)	79 (3.7%)
75-79	22 (1.1%)	27 (1.6%)	41 (2.1%)	50 (2.6%)	49 (2.3%)
80-84	22 (1.1%)	11 (0.6%)	21 (1.1%)	29 (1.5%)	18 (0.9%)
85+	6 (0.3%)	9 (0.5%)	20 (1.0%)	15 (0.8%)	26 (1.2%)
Unknown	3 (0.2%)	0 (0.0%)	1 (0.1%)	1 (0.1%)	2 (0.1%)
Local Health District					
Central Coast	24 (1.2%)	25 (1.5%)	19 (1.0%)	31 (1.6%)	33 (1.6%)
Far West	7 (0.4%)	7 (0.4%)	7 (0.4%)	6 (0.3%)	6 (0.3%)
Hunter New England	61 (3.2%)	62 (3.6%)	57 (2.9%)	71 (3.7%)	92 (4.3%)
Illawarra Shoalhaven	38 (2.0%)	28 (1.6%)	43 (2.2%)	34 (1.8%)	58 (2.7%)
Mid North Coast	15 (0.8%)	21 (1.2%)	23 (1.2%)	26 (1.3%)	24 (1.1%)
Murrumbidgee	26 (1.3%)	31 (1.8%)	32 (1.6%)	52 (2.7%)	46 (2.2%)
Nepean Blue Mountains	37 (1.9%)	44 (2.6%)	31 (1.6%)	38 (2.0%)	42 (2.0%)
Northern NSW	18 (0.9%)	18 (1.1%)	21 (1.1%)	19 (1.0%)	19 (0.9%)
Northern Sydney	272 (14.1%)	237 (13.9%)	261 (13.1%)	250 (13.0%)	261 (12.3%)
South Eastern Sydney	282 (14.6%)	221 (13.0%)	256 (12.9%)	223 (11.6%)	221 (10.4%)
South Western Sydney	339 (17.6%)	326 (19.1%)	424 (21.3%)	466 (24.1%)	528 (25.0%)
Southern NSW	20 (1.0%)	24 (1.4%)	16 (0.8%)	16 (0.8%)	14 (0.7%)
Sydney	272 (14.1%)	257 (15.1%)	281 (14.1%)	194 (10.1%)	259 (12.2%)
Western NSW	24 (1.2%)	27 (1.6%)	29 (1.5%)	27 (1.4%)	34 (1.6%)
Western Sydney	438 (22.7%)	329 (19.3%)	445 (22.3%)	414 (21.5%)	416 (19.7%)
Justice Health	33 (1.7%)	23 (1.4%)	23 (1.2%)	24 (1.2%)	20 (0.9%)
Unknown	24 (1.2%)	23 (1.4%)	24 (1.2%)	39 (2.0%)	42 (2.0%)

Data source: NCIMS, NSW Health; data extracted 1 April 2025.

Note: Excludes non-NSW residents. Year of notification is based on calculated onset date. Data are provisional and subject to change.

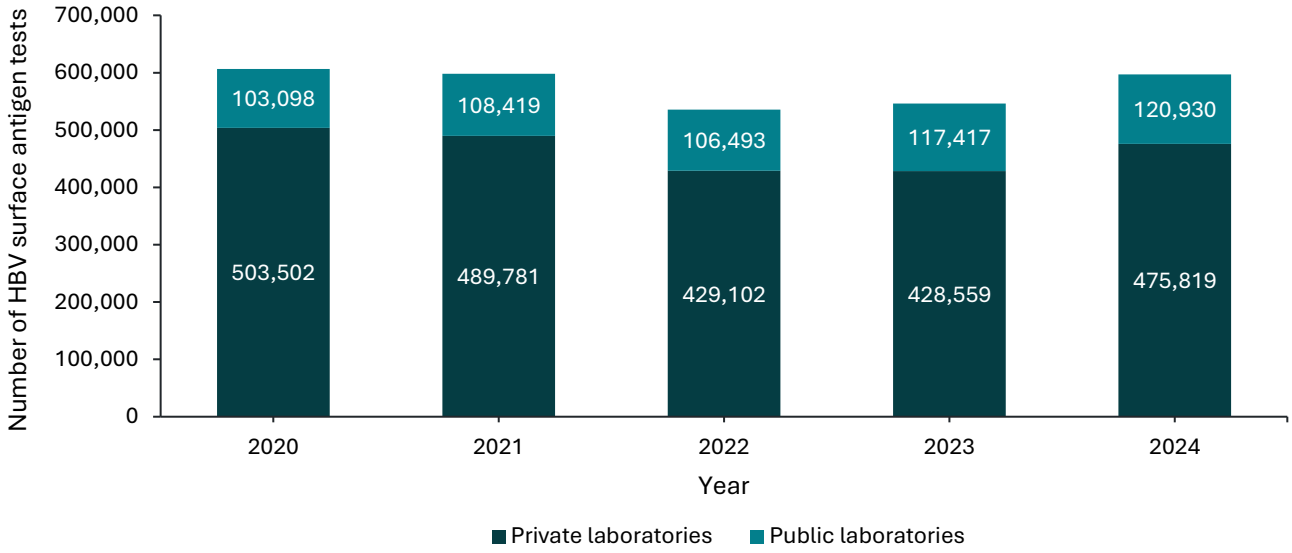
Table 4: Hepatitis B notification rates per 100,000 population by gender, age group and Local Health District of residence, NSW, 2020-2024

Characteristic	2020	2021	2022	2023	2024
Gender					
Female	22.5	18.6	22.1	20.6	24.2
Male	24.8	23.1	26.7	26.4	26.8
Unknown	NA	NA	NA	NA	NA
Age group at diagnosis					
0-14	0.3	0.2	0.3	0.4	0.1
15-19	3.8	2.4	4.5	4.3	3.8
20-24	15.7	12.3	12.2	13.6	17.1
25-29	27.0	22.0	20.4	24.4	26.9
30-34	49.1	43.1	39.1	35.6	41.0
35-39	52.3	41.1	44.6	45.6	51.8
40-44	38.4	42.5	42.9	41.7	45.7
45-49	30.9	33.5	40.0	41.6	41.4
50-54	34.0	28.2	36.8	34.4	38.0
55-59	32.1	32.0	37.2	31.6	37.8
60-64	32.9	23.4	39.3	35.1	33.8
65-69	25.7	19.2	34.1	28.7	31.1
70-74	16.9	18.1	22.8	19.0	21.0
75-79	8.7	10.2	14.4	16.5	15.6
80-84	12.6	6.1	11.2	14.9	8.8
85+	3.4	4.9	10.5	7.7	12.8
Unknown	NA	NA	NA	NA	NA
Local Health District					
Central Coast	6.9	7.2	5.4	8.8	9.3
Far West	24.1	24.4	24.7	21.4	21.7
Hunter New England	6.5	6.5	6.0	7.4	9.4
Illawarra Shoalhaven	8.9	6.5	10.0	7.8	13.1
Mid North Coast	6.6	9.2	10.1	11.3	10.4
Murrumbidgee	8.6	10.3	10.6	17.1	15.0
Nepean Blue Mountains	9.6	11.5	8.1	9.9	10.9
Northern NSW	5.9	5.8	6.8	6.1	6.1
Northern Sydney	28.4	24.8	27.3	26.1	27.1
South Eastern Sydney	29.4	23.3	27.4	24.0	23.8
South Western Sydney	32.4	31.1	40.2	43.9	49.2
Southern NSW	9.4	11.1	7.4	7.3	6.3
Sydney	38.7	36.9	40.5	28.0	37.2
Western NSW	8.5	9.6	10.2	9.5	11.9
Western Sydney	42.0	31.5	42.6	39.3	39.0
Justice Health	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA

Data source: NCIMS, NSW Health and NSW Population Projections, NSW Department of Planning (via SAPHaRI); data extracted 1 April 2025. Note: Excludes non-NSW residents. Year of notification is based on calculated onset date. Rate calculated per 100,000 population. NA is applied when the denominator (total population) is unavailable. For Justice Health this is because the available population data provides the number of annual incarcerations, not the number of people incarcerated.

Appendix B: Hepatitis B testing

Figure 12: Hepatitis B surface antigen tests by public and private laboratory, NSW, 2020-2024



Data source: NSW Denominator Data Project, NSW Health. Data extracted 20 March 2025.

Table 5: Hepatitis B viral load testing for monitoring only (no treatment) by Local Health District of residence, 2019 to 2024

Local Health District	2019	2020	2021	2022	2023	2024
Sydney	1,886	1,759	1,662	1,660	1,734	1,773
South Western Sydney	2,697	2,466	2,365	2,322	2,539	2,722
South Eastern Sydney	1,506	1,550	1,499	1,540	1,568	1,610
Illawarra Shoalhaven	243	253	267	278	258	296
Western Sydney	2,437	2,237	2,392	2,383	2,515	2,766
Nepean Blue Mountains	160	162	171	162	165	220
Northern Sydney	2,008	1,893	2,035	2,114	2,268	2,435
Central Coast	145	<100	153	153	175	205
Hunter New England	267	245	251	225	246	334
Northern NSW	<100	<100	<100	44	47	28
Mid North Coast	<100	<100	<100	49	76	58
Southern NSW	<100	<100	<100	78	49	71
Murrumbidgee	<100	<100	<100	58	65	57
Western NSW	<100	<100	<100	78	76	89
Far West	<100	<100	<100	12	16	50
NSW Total	**11,725**	**11,041**	**11,131**	**11,166**	**11,803**	**12,729**

Provider (DOP) by NSW Health region, quantitation of Hepatitis B viral DNA in patients who are Hepatitis B surface antigen positive and have chronic hepatitis B but are not receiving antiviral therapy. For any particular patient, this item is applicable not more than once in a 12-month period. Year is calculated based on the date the service was processed by Service Australia, not the date the service was provided. Local Health District is based on the address of the patient at the time the date of service. Data does not include HBV viral load tests provided to inpatients in public hospitals or HBV viral load tests that qualify for a benefit under the Department of Veterans' Affairs National Treatment Account.
Note: The MBS testing data from Australia Service is allocated to GPs and specialists. Before 2022, if either group conducted fewer than 50 tests, the precise numbers were masked and reported as less than 100. Figures for previous years differ from the 2023 Annual Report, which used Item 69482 by the *Registered Specialty of Requesting Provider (DBS) by NSW Health region*. The current report uses Item 69482 by the *Derived Major Specialty of Requesting Provider (DOP) by NSW Health region*.

Appendix C: Hepatitis B treatment

Table 6: People receiving hepatitis B treatment by Local Health District of residence, 2019 to 2024

Local Health District	2019	2020	2021	2022	2023	2024
Sydney	1,329	1,347	1,395	1,430	1,460	1,487
South Western Sydney	2,777	2,882	2,961	3,028	3,114	3,244
South Eastern Sydney	1,559	1,574	1,603	1,626	1,702	1,734
Illawarra Shoalhaven	129	139	167	167	177	183
Western Sydney	2,079	2,138	2,292	2,394	2,437	2,594
Nepean Blue Mountains	167	186	202	210	201	213
Northern Sydney	1,559	1,629	1,757	1,835	1,949	2,072
Central Coast	100	101	110	119	138	151
Hunter New England	204	218	220	225	225	249
Northern NSW	68	71	80	87	99	101
Mid North Coast	73	73	64	65	72	77
Southern NSW	63	66	66	62	60	64
Murrumbidgee	57	59	53	64	63	66
Western NSW	66	74	74	78	83	101
Far West	5	9	8	6	7	5
NSW Total	**10,235**	**10,566**	**11,052**	**11,396**	**11,787**	**12,341**

Data source: Pharmaceutical Benefits Scheme. Indication is “Chronic hepatitis B infection”. The counting is applicable not more than once in a 12-month period per patient. Year is calculated based on the date the supply. Local Health District is based on the address of the patient at the time of date of supply record in PBS. Data does not include HBV treatments provided to inpatients in public hospitals and PBS non-eligible patients.

Note: Incorporates residents who were dispensed treatment in Justice Health settings.

Appendix D: Data sources

Table 7: Details on data sources included in this report

Name	Custodian	Description
NSW Notifiable Conditions Information Management System (NCIMS)	Health Protection NSW, NSW Health	NCIMS contains records of all people notified to NSW Health with a notifiable condition under the NSW *Public Health Act 2010*. Hepatitis B notification data may not reflect the true incidence of hepatitis B infections as they only include those living with hepatitis B who were tested and diagnosed. Notification data is however useful for monitoring trends over time. A hepatitis B notification represents an individual. Subsequent notifications for the same individual are not counted.
NSW Health denominator data project	Health Protection NSW, NSW Health	Monthly aggregated testing data for selected notifiable conditions from 12 public and private laboratories in NSW. These laboratories account for ~88% of the total notifications for the selected conditions in NSW. Information provided by these laboratories does not indicate if there are repeat tests for the same individual.
Pharmaceutical Benefits Schedule (PBS) Highly Specialised Drugs Programme data	Centre for Population Health, NSW Health	This data is prepared by Services Australia for NSW Health and captures all hepatitis B treatment dispensing in NSW through the PBS from a public hospital, private hospital, or community pharmacies.
Medicare Benefits Scheme (MBS) Programme data	Centre for Population Health, NSW Health	This data is prepared by the Services Australia for NSW Health and captures hepatitis B viral load tests (MBS item 69482) by General Practitioners and Specialists in NSW and by NSW Health region.
Hepatitis B decompensated cirrhosis and hepatocellular Carcinoma data linkage	Kirby Institute, UNSW	Trends in hepatitis B decompensated cirrhosis and hepatocellular carcinoma diagnoses in New South Wales are determined through linkage of hepatitis B notifications (January 1993-December 2023) with hospital admissions (January 2002-December 2023) and death registration data (January 1993- December 2023). Late hepatitis B notification is defined as notification at or within 2 years of a DC or HCC diagnosis.
National Surveillance for Hepatitis B Indicators: Annual Report 2023	WHO Collaborating Centre for Viral Hepatitis, The Doherty Institute	The estimates are prepared by the WHO Collaborating Centre for Viral Hepatitis, The Doherty Institute. Estimates are derived from a mathematical model which incorporates important demographic features such as births, migration, deaths, and aging overtime.
Stigma Indicators Monitoring Project	Centre for Social Research in Health	The Stigma Indicators Monitoring Project periodically collects data regarding stigma and discrimination experienced by groups including people affected by hepatitis B. The project also monitors the expression of stigma towards these groups by health care workers and the public.
Australian Immunisation Register	Australian Government	The Australian Immunisation Register (AIR) is a national register that records vaccines given to all people in Australia.
Quality Improvement Data System	Clinical Excellence Commission	Hepatitis B antenatal screening data based on women who have given birth in NSW public hospitals that use eMaternity eMR. Data excludes all babies born in Northern Beaches Hospital, private hospitals or delivered by independent midwives. This data represents approximately 75% of all mothers who birthed in NSW.


NSW
GOVERNMENT