Supplement to the Viral Hepatitis Mapping Project: Hepatitis B – National Report 2023

WHO Collaborating Centre for Viral Hepatitis, The Doherty Institute

Table of contents

Information regarding estimation of CHB treatment and care uptake in the Northern Territory	2
Additional data regarding CHB prevalence by population group	
CHB care uptake 2014-2023 among Aboriginal and Torres Strait Islander people, state/territory	-
Treatment and monitoring data by PHN, 2018-2023	
Declaration regarding the use of PLIDA data	. 8

Information regarding estimation of CHB treatment and care uptake in the Northern Territory

Data reported in the National Hepatitis B Mapping Report which estimate treatment and care uptake are derived from Medicare records. Comparison of raw data obtained from Medicare regarding the number of people receiving treatment and monitoring in the regions covered by the Hep B PAST initiative (in particular the East Arnhem East Arnhem and Daly – Tiwi – West Arnhem Statistical Area 3 (SA3) regions) indicates substantial underestimation compared to other data sources, suggesting that individuals receiving care are not effectively captured. This is likely due to a combination of factors, including the provision of hepatitis B viral load tests via laboratory testing billed to government health departments, (and therefore not captured in Medicare data) and potential issues in linkage of prescribing data between local health care services and national records.

For robust data regarding the uptake of hepatitis B care and treatment in these regions, please see the following publication: https://pubmed.ncbi.nlm.nih.gov/38966601/

The evidence suggests that these regions of the NT have among the highest treatment and care uptake in Australia, although this is not reflected in the available national data sources.

Further assessment of potential gaps in the capture of individuals receiving care in Medicare data will be explored in future iterations of the Hepatitis B Mapping Report.

Additional data regarding CHB prevalence by population group

Supplementary Table 1: Estimated prevalence of CHB in 2023 among Aboriginal and Torres Strait Islander people, by remoteness area and state/territory

State/territory	Major cities	Inner regional	Outer regional	Remote	Very remote	TOTAL
ACT	0.7%	n.a.	n.a.	n.a.	n.a.	0.7%
NSW	0.7%	0.7%	1.6%	6.4%	10.1%	1.0%
NT	n.a.	n.a.	2.0%	4.5%	4.9%	4.1%
Qld	1.7%	0.7%	2.6%	0.9%	3.8%	1.8%
SA	1.5%	1.2%	2.2%	0.6%	4.7%	1.9%
Tas.		0.7%	0.8%	0.8%	1.1%	0.7%
Vic.	0.7%	0.05%	0.1%	n.a.	n.a.	0.4%
WA	1.1%	1.0%	2.8%	5.9%	6.9%	3.0%

ABS, Australian Bureau of Statistics. CHB, chronic hepatitis B. n.a., not applicable (no regions with this level of remoteness exist in the jurisdiction).

Data source: CHB prevalence estimates based on mathematical modelling incorporating population-specific prevalence and ABS population data. Data specific to Aboriginal and Torres Strait Islander people derived from antenatal prevalence studies supplemented with notifications data.

Notes: Remoteness category based on designations by the ABS. $^{\rm 3}$

Supplementary Table 2: Estimated prevalence of CHB and number and proportion of people living with CHB according to country of birth, 2023 (top 40 countries)

		Number of people		Proportion of the total number of	
Country of birth	Minor Region (SACC)	living with CHB	Prevalence (%)	people with CHB (%)	
China	North-East Asia	40,715	6.0%	18.5%	
Vietnam	South-East Asia	22,317	7.3%	10.2%	
Philippines	South-East Asia	9,085	2.4%	4.1%	
New Zealand	Oceania & Antarctica	5,175	0.8%	2.4%	
Thailand	South-East Asia	4,332	3.8%	2.0%	
Malaysia	South-East Asia	3,957	2.1%	1.8%	
Taiwan	North-East Asia	3,564	5.6%	1.6%	
Hong Kong (SAR of China)	North-East Asia	3,453	2.8%	1.6%	
Greece	Southern & Eastern	3,372	3.5%	1.5%	
Cambodia	South-East Asia	3,341	7.4%	1.5%	
Italy	Southern & Eastern	2,815	1.7%	1.3%	
India	Southern & Central Asia	2,748	0.3%	1.3%	
England	North-West Europe	2,644	0.3%	1.2%	
South Korea	North-East Asia	2,570	2.2%	1.2%	
Indonesia	South-East Asia	2,270	2.0%	1.0%	
Myanmar	South-East Asia	2,115	4.6%	1.0%	
Tonga	Oceania & Antarctica	1,464	7.7%	0.7%	
Samoa	Oceania & Antarctica	1,448	3.8%	0.7%	
Kenya	Sub-Saharan Africa	1,441	4.6%	0.7%	
Turkey	North Africa & Middle East	1,382	3.1%	0.6%	
Nigeria	Sub-Saharan Africa	1,379	7.6%	0.6%	
Mauritius	Sub-Saharan Africa	1,339	4.5%	0.6%	
Bhutan	Southern & Central Asia	1,286	4.5%	0.6%	
Afghanistan	Southern & Central Asia	1,248	1.6%	0.6%	
Singapore	South-East Asia	1,240	1.8%	0.6%	
Nepal	Southern & Central Asia	1,173	0.6%	0.5%	
Colombia	Americas	1,143	1.8%	0.5%	
Papua New Guinea	Oceania & Antarctica	1,117	3.1%	0.5%	
Somalia	Sub-Saharan Africa	1,072	11.4%	0.5%	
Vanuatu	Oceania & Antarctica	1,048	13.4%	0.5%	
Lebanon	North Africa & Middle East	1,048	1.1%	0.5%	
Sudan	North Africa & Middle East	961	5.1%	0.4%	
Solomon Islands	Oceania & Antarctica	889	14.6%	0.4%	
Mongolia	North-East Asia	870	7.0%	0.4%	
Laos	South-East Asia	853	7.0%	0.4%	
Syria	North Africa & Middle East	806	2.3%	0.4%	
Pakistan	Southern & Central Asia	805	0.7%	0.4%	
Ghana	Sub-Saharan Africa	792	10.0%	0.4%	
Ethiopia	Sub-Saharan Africa	791	4.7%	0.4%	
Iraq	North Africa & Middle East	755	0.7%	0.3%	

ABS, Australian Bureau of Statistics. CHB, chronic hepatitis B. SACC, Standard Australian Classification of Countries.

Data source: CHB prevalence estimates based on mathematical modelling incorporating population-specific prevalence and ABS population data. Country-specific data sourced predominantly from local antenatal studies.

CHB care uptake 2014-2023 among Aboriginal and Torres Strait Islander people, by state/territory

Supplementary Table 3: Proportion of Aboriginal and Torres Strait Islander people who had any CHB care (treatment or monitoring) during 2014–2023

State / territory	Number of Aboriginal and Torres Strait Islander people who had any CHB care (treatment or monitoring) during 2014– 2023	Estimated number of Aboriginal and Torres Strait Islander people with CHB	Proportion of people who had any CHB care (treatment or monitoring) during 2014–2023	
ACT	31	84	53.0%	
NSW	1,366	3,683	36.7%	
NT	1,404	3,785	52.5%	
QLD	1,437	3,874	36.5%	
SA*	291*	785	42.7%	
TAS	30	81	15.4%	
VIC	292	787	56.2%	
WA*	497*	1,340	16.6%	
Total	5,484	14,785	37.1%	

CHB, chronic hepatitis B. PHN, Primary Health Network.

Data source: CHB prevalence estimates based on mathematical modelling incorporating population-specific prevalence and ABS population data. Data specific to Aboriginal and Torres Strait Islander people derived from antenatal prevalence studies supplemented with notifications data. Treatment data and Monitoring data (viral load test while not on treatment) sourced from Medicare statistics. Indigenous status for Medicare data derived from combined demographics information in PLIDA.

Totals may not add up due to inclusion of people without a state/territory of residence recorded in source data. *Data are underestimated in SA and WA due to the provision of monitoring services outside of Medicare. This underestimation may vary according to Indigenous status.

Treatment and monitoring data by PHN, 2018-2023

Supplementary Table 4: Number of people receiving monitoring of CHB, by PHN 2018–2023

Primary Health Network	People receiving monitoring in 2018	People receiving monitoring in 2019	People receiving monitoring in 2020	People receiving monitoring in 2021	People receiving monitoring in 2022	People receiving monitoring in 2023
Adelaide	*	*	*	*	*	*
Australian Capital Territory	441	431	382	413	442	349
Brisbane North	437	464	434	421	417	435
Brisbane South	2036	1855	1911	1815	1772	1727
Central and Eastern Sydney	3077	3018	2909	2750	2757	2879
Central Queensland, Wide						
Bay, Sunshine Coast	166	198	200	200	198	191
Country SA	*	*	*	*	*	*
Country WA	*	*	*	*	*	*
Darling Downs and West						
Moreton	299	312	314	275	273	282
Eastern Melbourne	3173	3276	2886	3069	2957	2818
Gippsland	96	85	94	94	89	77
Gold Coast	229	265	263	278	285	259
Hunter New England and						
Central Coast	380	429	393	393	380	420
Murray	289	299	281	310	289	318
Murrumbidgee	66	80	58	60	67	66
Nepean Blue Mountains	227	265	231	235	232	212
North Coast	173	201	178	158	187	196
North Western Melbourne	3549	3677	3252	3305	3081	2919
Northern Queensland	581	597	545	543	489	477
Northern Sydney	1828	1864	1679	1808	1793	1904
Northern Territory	694	618	599	480	444	471
Perth North	*	*	*	*	*	*
Perth South	*	*	*	*	*	*
South Eastern Melbourne	2308	2434	2151	2243	2149	2049
South Eastern NSW	240	287	275	265	290	235
South Western Sydney	2731	2683	2498	2425	2373	2458
Tasmania	139	147	130	140	123	120
Western NSW	162	165	181	166	170	182
Western Queensland	12	12	15	15	11	16
Western Sydney	3041	3064	2773	2817	2708	2610
Western Victoria	189	273	251	268	238	272
AUSTRALIA	29,197	29,086	26,678	27,792	25,735	26,124

CHB, chronic hepatitis B. PHN, Primary Health Network.

Data source: Monitoring data (viral load test while not on treatment) sourced from Medicare statistics.

Totals may not add up due to inclusion of people without a PHN of residence recorded in source data.

^{*}Data not provided for Sa and WA due to provision of monitoring services outside of Medicare.

Supplementary Table 5: Number of people receiving treatment for CHB, by PHN 2018–2023

Primary Health Network	People receiving treatment in 2018	People receiving treatment in 2019	People receiving treatment in 2020	People receiving treatment in 2021	People receiving treatment in 2022	People receiving treatment in 2023
Adelaide	802	923	971	1055	1091	1157
Australian Capital Territory	354	378	415	452	473	481
Brisbane North	378	402	475	504	521	570
Brisbane South	1,184	1,337	1,442	1,516	1,607	1,697
Central and Eastern Sydney	2,687	2,777	2,851	2,930	2,995	3,104
Central Queensland, Wide						
Bay, Sunshine Coast	145	193	218	245	253	256
Country SA	77	75	85	94	97	104
Country WA	117	133	161	172	181	192
Darling Downs and West Moreton	191	220	219	235	236	260
Eastern Melbourne	1,961	2,128	2,315	2,381	2,463	2,610
Gippsland	57	73	78	79	92	83
Gold Coast	258	286	290	303	339	367
Hunter New England and Central Coast	325	322	333	355	365	376
Murray	182	187	192	210	222	212
Murrumbidgee	44	48	53	48	55	57
Nepean Blue Mountains	143	169	180	190	198	194
North Coast	129	138	149	151	160	173
North Western Melbourne	2,329	2,535	2,663	2,828	2,899	3,038
Northern Queensland	229	256	279	306	307	325
Northern Sydney	1,329	1,446	1,526	1,626	1,711	1,776
Northern Territory	288	346	386	440	467	494
Perth North	718	778	805	851	886	932
Perth South	584	651	709	786	808	858
South Eastern Melbourne	1,491	1,662	1,746	1,844	1,890	1,937
South Eastern NSW	173	193	194	233	229	235
South Western Sydney	2,555	2,669	2,750	2,833	2,886	2,920
Tasmania	109	111	135	142	160	165
Western NSW	69	92	93	93	95	101
Western Queensland	11	11	11	11	11	11
Western Sydney	2,246	2,346	2,400	2,602	2,686	2,716
Western Victoria	121	136	175	207	236	240
AUSTRALIA	21,285	23,019	24,300	25,724	26,617	27,641

CHB, chronic hepatitis B. PHN, Primary Health Network.

Data source: Treatment data sourced from Medicare statistics.

 $Totals\ may\ not\ add\ up\ due\ to\ inclusion\ of\ people\ without\ a\ PHN\ of\ residence\ recorded\ in\ source\ data.$

Declaration regarding the use of PLIDA data

The results of these studies are based, in part, on data supplied to the ABS under the Taxation Administration Act 1953, A New Tax System (Australian Business Number) Act 1999, Australian Border Force Act 2015, Social Security (Administration) Act 1999, A New Tax System (Family Assistance) (Administration) Act 1999, Paid Parental Leave Act 2010 and/or the Student Assistance Act 1973. Such data may only used for the purpose of administering the Census and Statistics Act 1905 or performance of functions of the ABS as set out in section 6 of the Australian Bureau of Statistics Act 1975. No individual information collected under the Census and Statistics Act 1905 is provided back to custodians for administrative or regulatory purposes. Any discussion of data limitations or weaknesses is in the context of using the data for statistical purposes and is not related to the ability of the data to support the Australian Taxation Office, Australian Business Register, Department of Social Services and/or Department of Home Affairs' core operational requirements.

Legislative requirements to ensure privacy and secrecy of these data have been followed. For access to PLIDA and/or BLADE data under Section 16A of the ABS Act 1975 or enabled by section 15 of the Census and Statistics (Information Release and Access) Determination 2018, source data are de-identified and so data about specific individuals has not been viewed in conducting this analysis. In accordance with the Census and Statistics Act 1905, results have been treated where necessary to ensure that they are not likely to enable identification of a particular person or organisation.