



Hepatitis B Among Australian CaLD Communities

Migrant Blood-Borne Virus and Sexual Health Survey (MiBSS)

and

Survey Among Myanmar Communities in Perth

14 June 2023 || WA Health STI and BBV Quarterly Forum



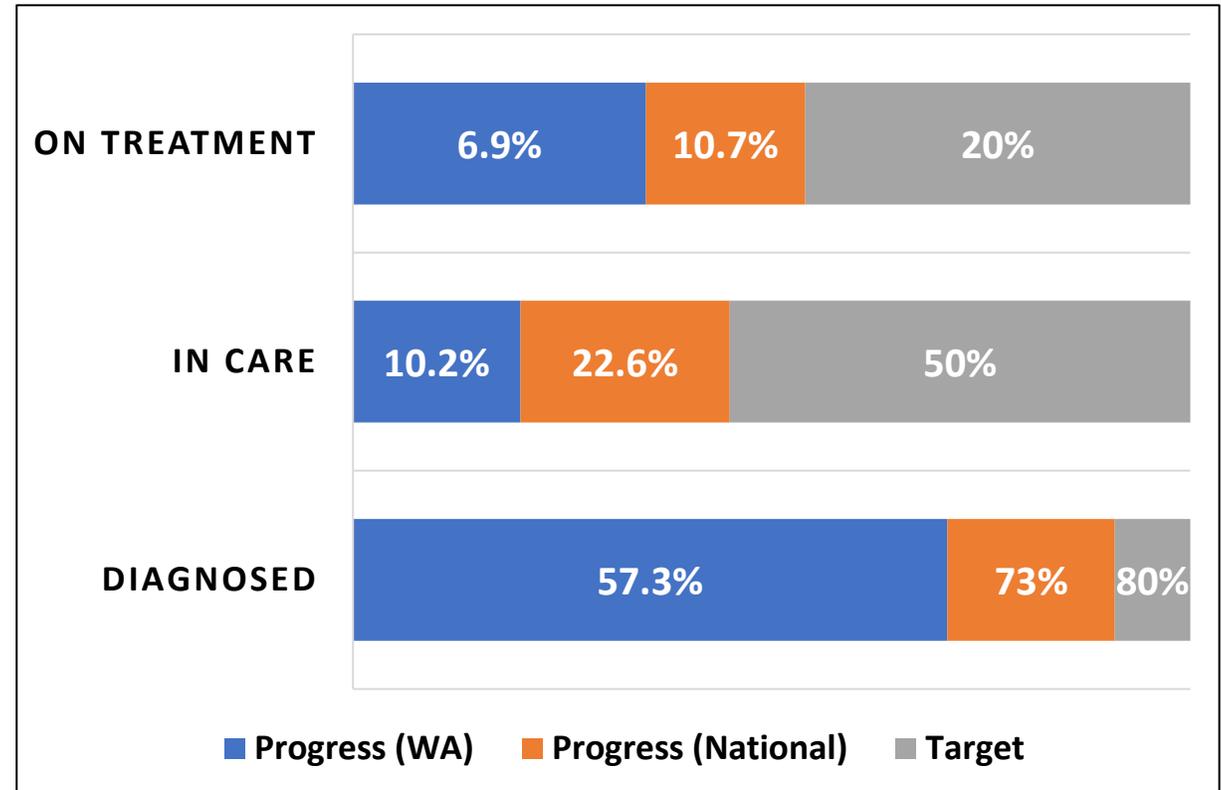
We respectfully acknowledge the First Nations people across whose lands we meet.

We recognise that their ancient sovereignty was never ceded, and that First Nations people were the first Australians to establish respectful relationships with visitors from other lands.

Background

- **0.87%:** Living with chronic hepatitis B in **Australia**, 2020 ⁽¹⁾
- Hepatitis B prevalence among those originating from **North-East Asia (6.7%), South-East Asia (5.1%)** ⁽²⁾
- To contribute to the **progress towards 2022 cascade care targets** ⁽¹⁾

Figure 1. Progress towards the 2022 targets of Australian hepatitis B cascade care, as of 2020



Note. Adapted from “National surveillance for hepatitis B indicators: Measuring the progress towards the targets of the National Hepatitis B Strategy - Annual Report 2020,” by K. McCulloch, N. Romero, JH. MacLachlan, BC. Cowie, 2021. WHO Collaborating Centre for Viral Hepatitis, The Doherty Institute. ⁽¹⁾

Background (Hepatitis B prevalence and country-of-birth groups in WA)

- **0.89%:** Living with chronic hepatitis B in **WA**, 2020 ⁽¹⁾
- **81.3%** (3800/4674) of people living with chronic hepatitis B, WA, 2018: Overseas-born ⁽³⁾
- Among 3800 people living with chronic hepatitis B, WA, 2018:
 - 11.1% _ **China**
 - 6.7% _ **Vietnam**
 - 4.9% _ **Myanmar**
 - 4.8% _ **the Philippines**, and
 - 2.6% _ **Malaysia** ⁽³⁾

Migrant Blood-Borne Virus and Sexual Health Survey (MiBSS)



Total sample

1,489

respondents nationally

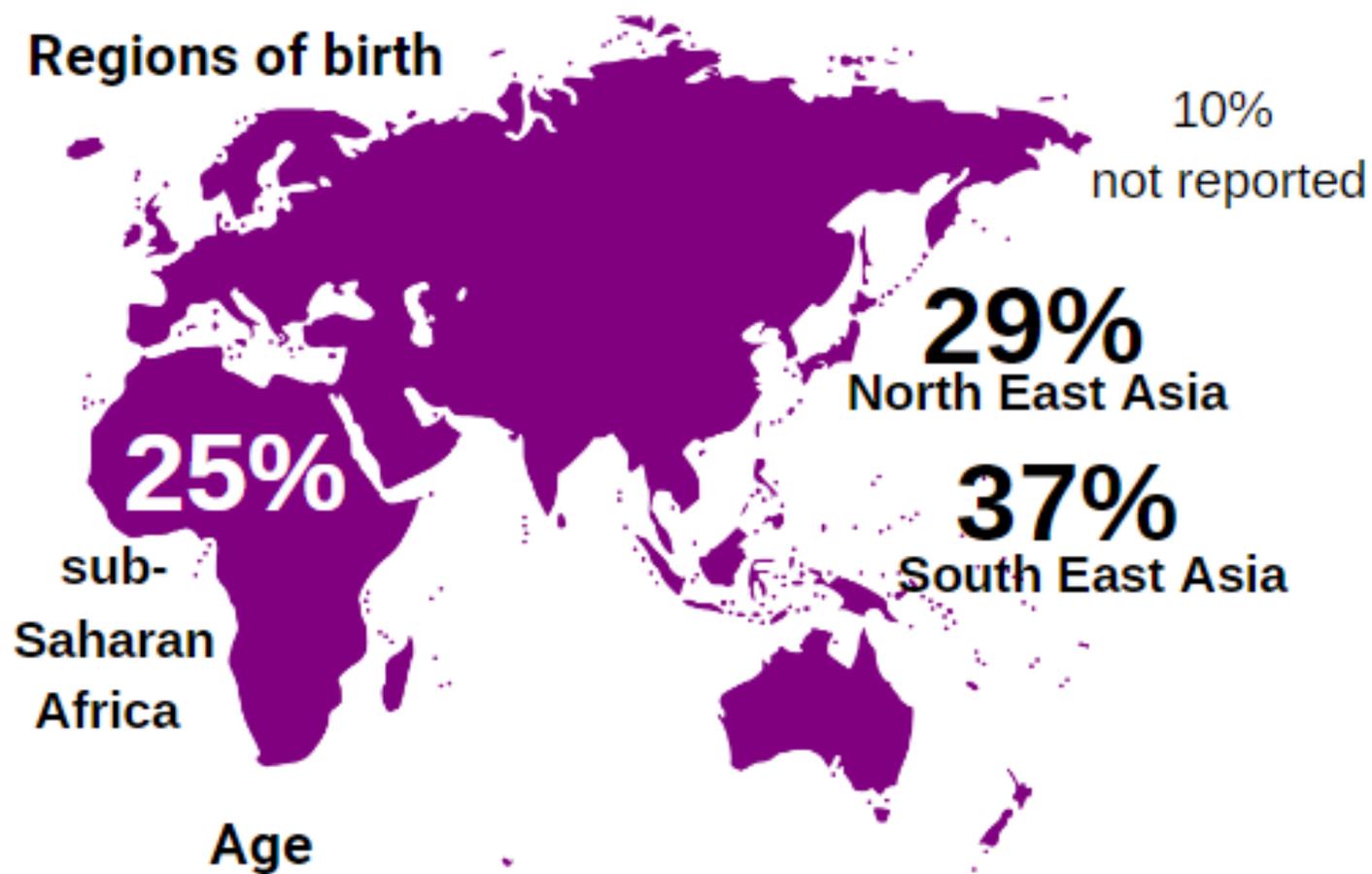
Gender

59%

35%

5% not reported

Regions of birth



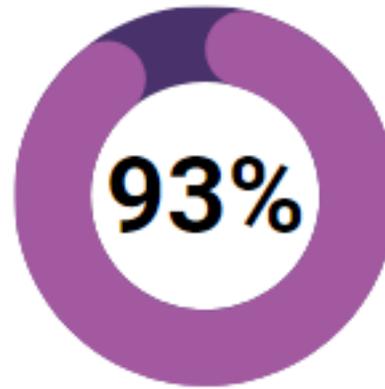
Age



Results: Awareness

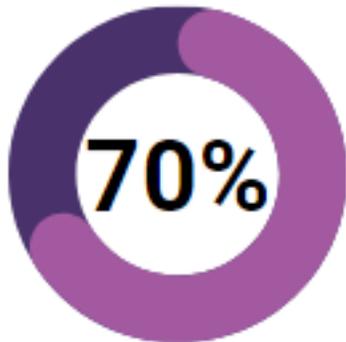
Which of the following best describes you? (Tick one)

- I have heard of hepatitis but I don't know if it was hepatitis B or another type of hepatitis (for example, hepatitis A or hepatitis C)
- I have heard of hepatitis B AND hepatitis C but I don't know the difference between them
- I have not heard of hepatitis B
- I have heard of hepatitis B and I know what it is

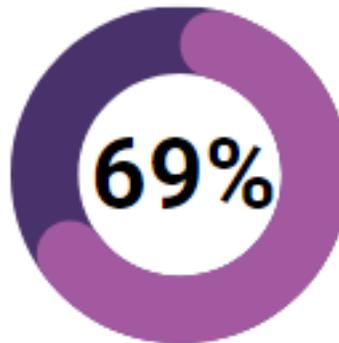


heard of some form of **hepatitis** but large amount of confusion between types
(n=1,405, 84 missing)

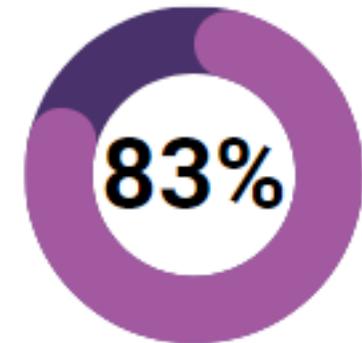
Of those (n=456) who specifically reported that they "have heard of hepatitis B and know what it is" ...



knew it was **sexually transmissible**
(n=445, 11 missing)



knew it could be transmitted through **sharing sharps**
(n=443, 13 missing)



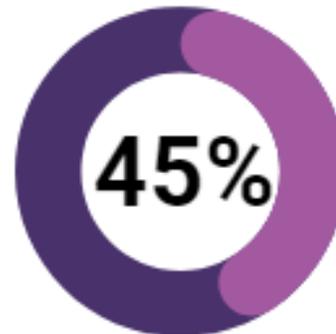
knew there is a **vaccine**
(n=446, 10 missing)

Results: Awareness

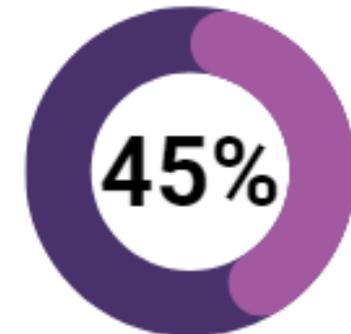
Of those (n=456) who specifically reported that they "have heard of hepatitis B and know what it is" ...



incorrectly believed or were unsure whether it is passed on through **contaminated water** (n=448, 8 missing)



incorrectly believed or were unsure whether it is passed on through **food** (n=446, 10 missing)



incorrectly believed or were unsure whether there was a **cure** (n=447, 9 missing)

ORIGINAL PAPER

***Chumnguh Thleum*: Understanding Liver Illness and Hepatitis B Among Cambodian Immigrants**

**Nancy J. Burke · Hoai Huyen Do · Jocelyn Talbot ·
Channdara Sos · Danika Svy · Victoria M. Taylor**

Yes, it [hepatitis] progresses from B to C. If we don't wash hands, it could spread hepatitis A. For A, for example, the cook, who makes food for us, goes to the restroom and does not wash his hand or drop his sweat; this would definitely spread hepatitis A. If we do not check up or protect ourselves, later it will develop to B or C. For this disease, once we have A or B, it will develop to C (FG5 1214–1221).

Just as bodily systems are interconnected and mutually influential, types of hepatitis are interconnected and mutually influential.

Hepatitis B Knowledge, Attitudes, and Practices Survey among Myanmar Communities in Perth, Western Australia



Objectives

- To assess the hepatitis B knowledge, attitudes, and practices among the Myanmar-born communities in Perth, Western Australia
- To explore the predictors of hepatitis B testing and vaccination practices

Rationale (Hepatitis B among Myanmar-born communities)

- **Hepatitis B prevalence** among Myanmar-born communities
 - **5.3%** among Myanmar-born from either refugee or non-refugee backgrounds (4,5)
 - **9.7% to 14.2%** of Myanmar-born populations from **refugee** backgrounds (6)
- **Hepatitis B genotype C** known to be associated with **liver cirrhosis and hepatocellular carcinoma**: The **most common** genotype in Myanmar-born communities (7, 8, 9)

Methods

- Ethics approval: Curtin Human Research Ethics Committee (HRE2020-034)
- A **cross-sectional** survey
- Survey population: **Adults, Myanmar-born, living in Perth in 2021**
- Sampling frame: Not available
- Sampling: **Time-location sampling**
- Sample size: **852**
- Recruitment: **Face-to-face intercept**
- **Consent: Verbal**

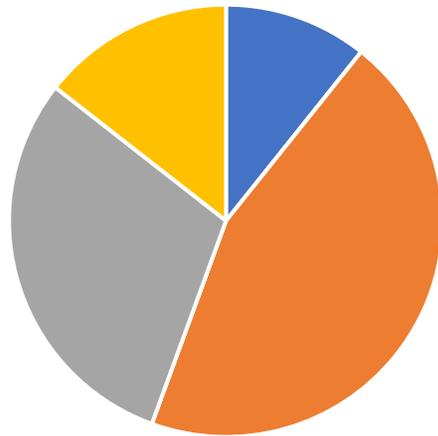
Methods (Continued)

- Questionnaire: 40 questions, multiple-choice, 5 domains, English and Myanmar languages
- Modes of administration: face-to-face interview, self-administered paper survey, audio computer-assisted self-interview with illustrated pictures
- Enumerators and respondents: 57.5% gender-matched (490/852)
- Data entry and analysis: SPSS

Results: Demographics

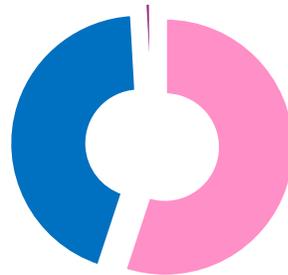
- 852 respondents (Response rates: 97.6%)

Age Groups

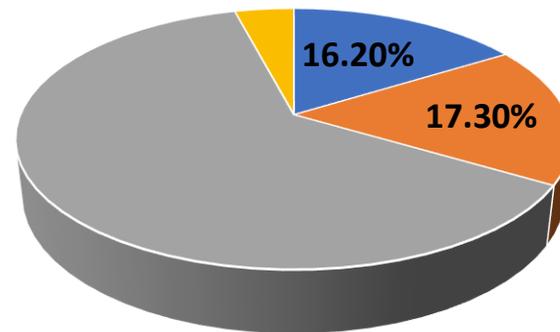


- 18-25 years
- 26-45 years
- 46-65 years
- 66 years and older

Gender

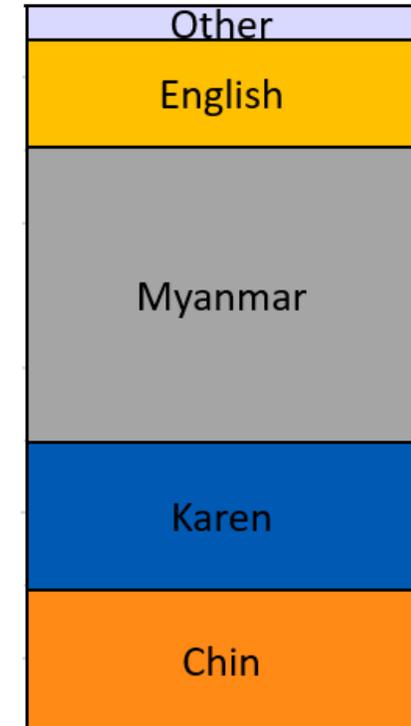


Last Country Before Australia

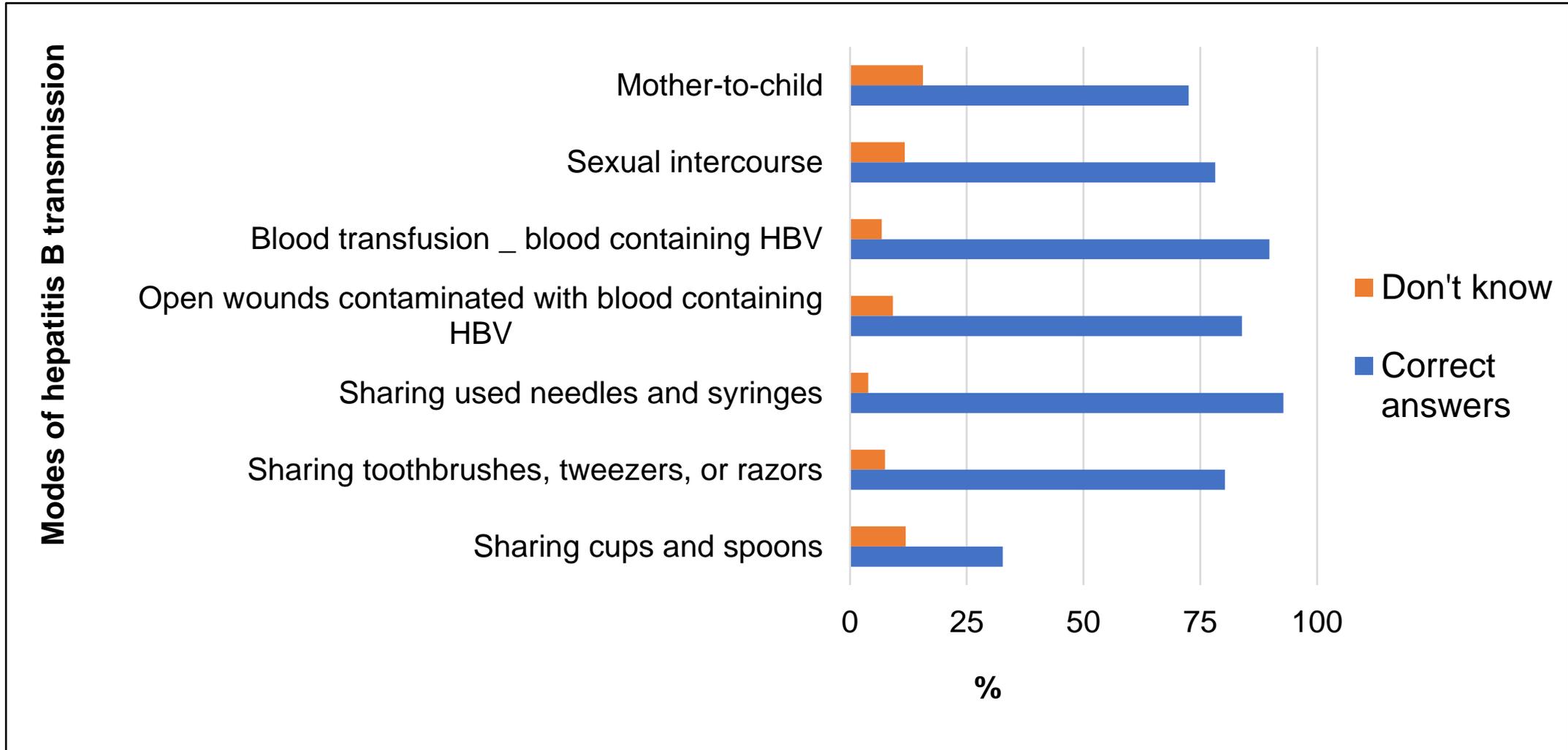


- Thailand
- Malaysia
- Myanmar
- Other

Main Language at Home

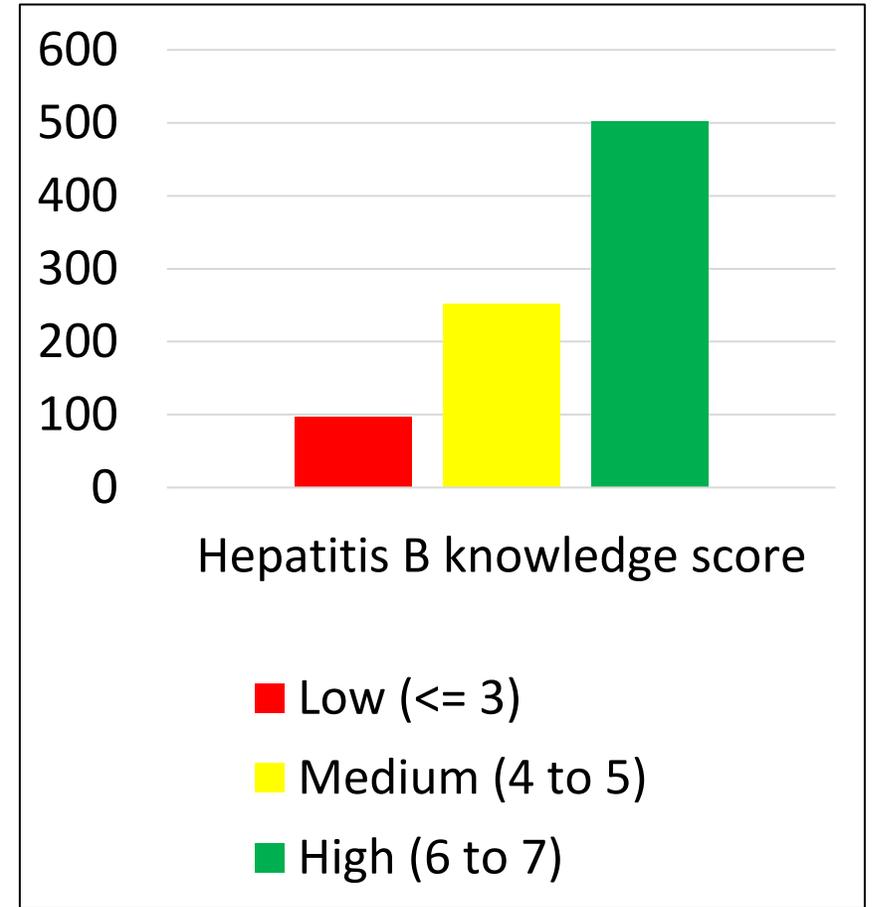


Results: Modes of Hepatitis B Transmission



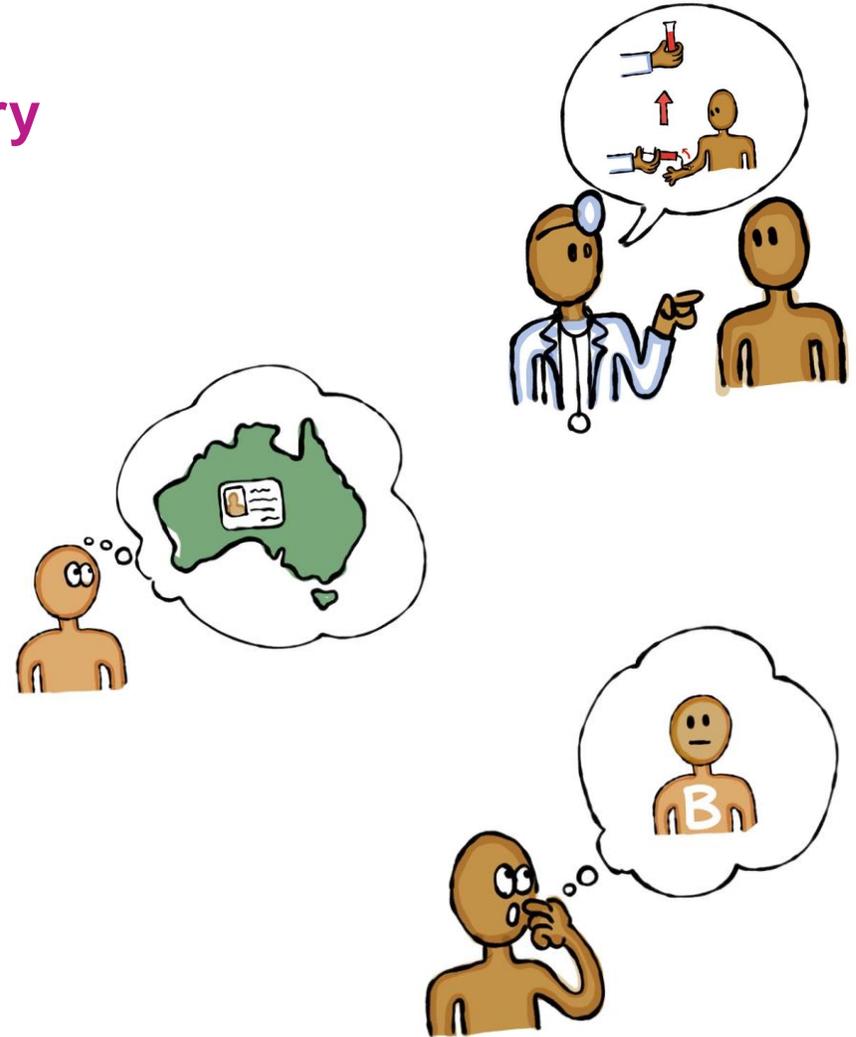
Results: Knowledge Scores _ Modes of Hepatitis B Transmission

- **Mean score: 5.30 +/- 1.42** (out of 7)
- Summing the correct answers to the questions about modes of hepatitis B transmission
 - '1' for each correct answer, and '0' for a wrong answer
 - Range: 0 to 7



Results: Self-Reported Hepatitis B Test History

- **63%** had at least one test
- **14.5%:** In the 12 months before the survey
- **49.8%:** The most recent test in Australia
- **Reasons** for taking a test
 - ‘suggested by **health care workers**’
 - ‘to apply for **visa**’
 - ‘**wanted to know** the serostatus’

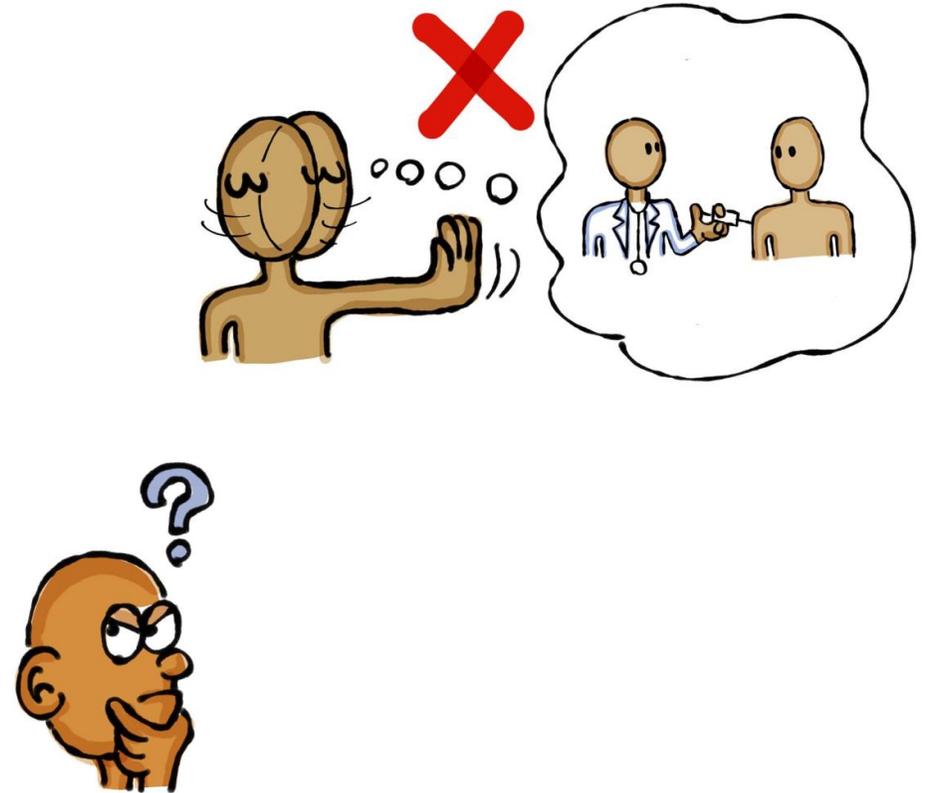


Results: Self-Reported Hepatitis B Seroprevalence

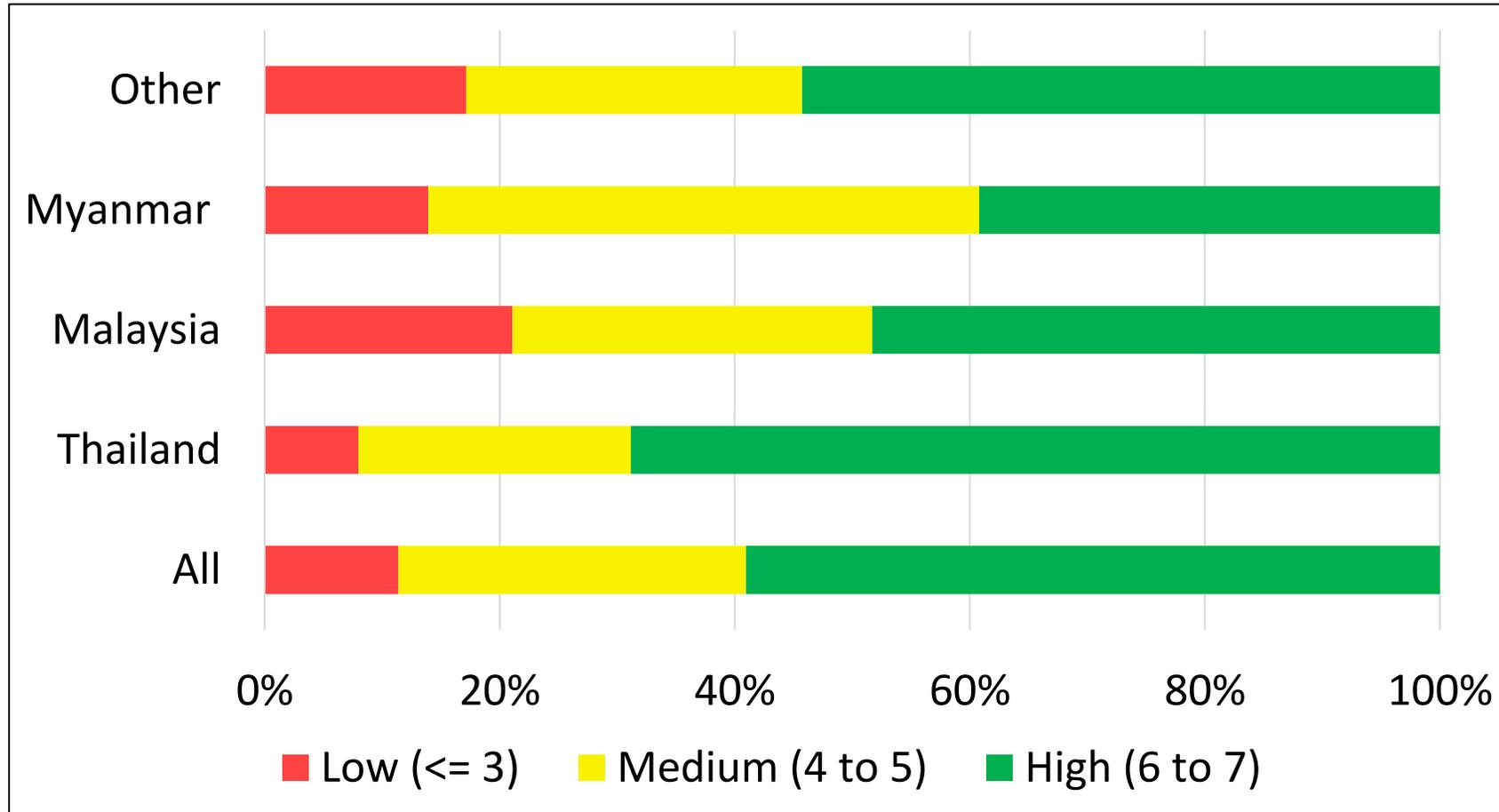
- **7.6%** (41/537): among those **who said to have had a blood test**
- **4.81%** (41/852): among **all** the study respondents
- Self-reported seropositive status is common among:
 - **26 to 45 years (39%), 46 to 65 years (36.6%)**
 - **Males (51.2%), Females (48.8%)**
 - Main language at home _ **Karen (39%), Myanmar (31.7%), Chin (14.6%), English (14.6%)**

Results: Self-Reported Hepatitis B Vaccination History

- **49.1%** had **three doses**
- **75.9%:** In **Australia**
- **Reasons for no vaccination**
 - “I don’t think I need the vaccine”
 - “I don’t know about the vaccine”

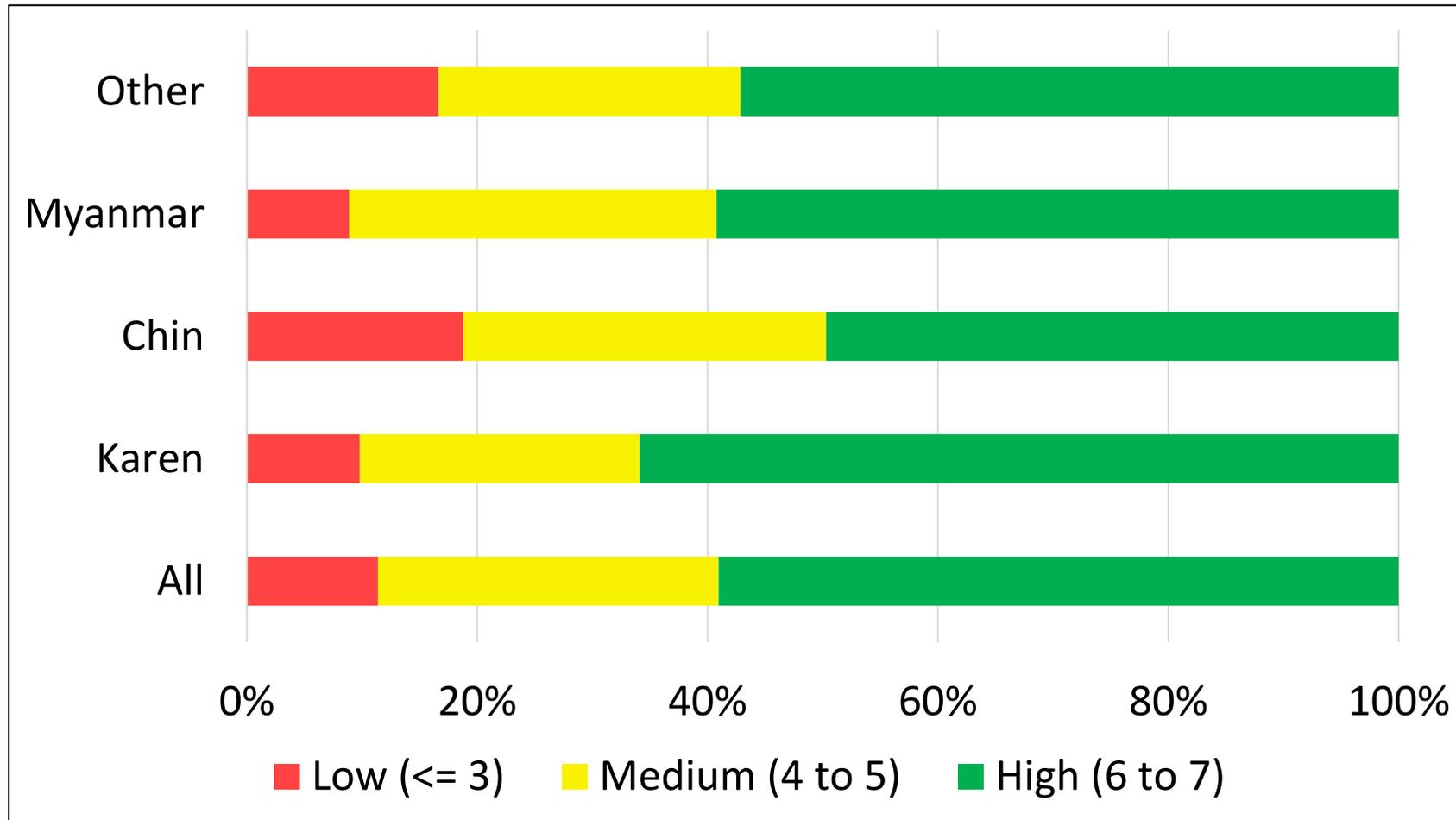


Results: Association Between 'Last Country Before Australia' and 'Hepatitis B Knowledge Score Range'



$p < 0.001$
(Chi-square test)

Results: Association Between 'Main Language Spoken at Home' and 'Hepatitis B Knowledge Score Range'

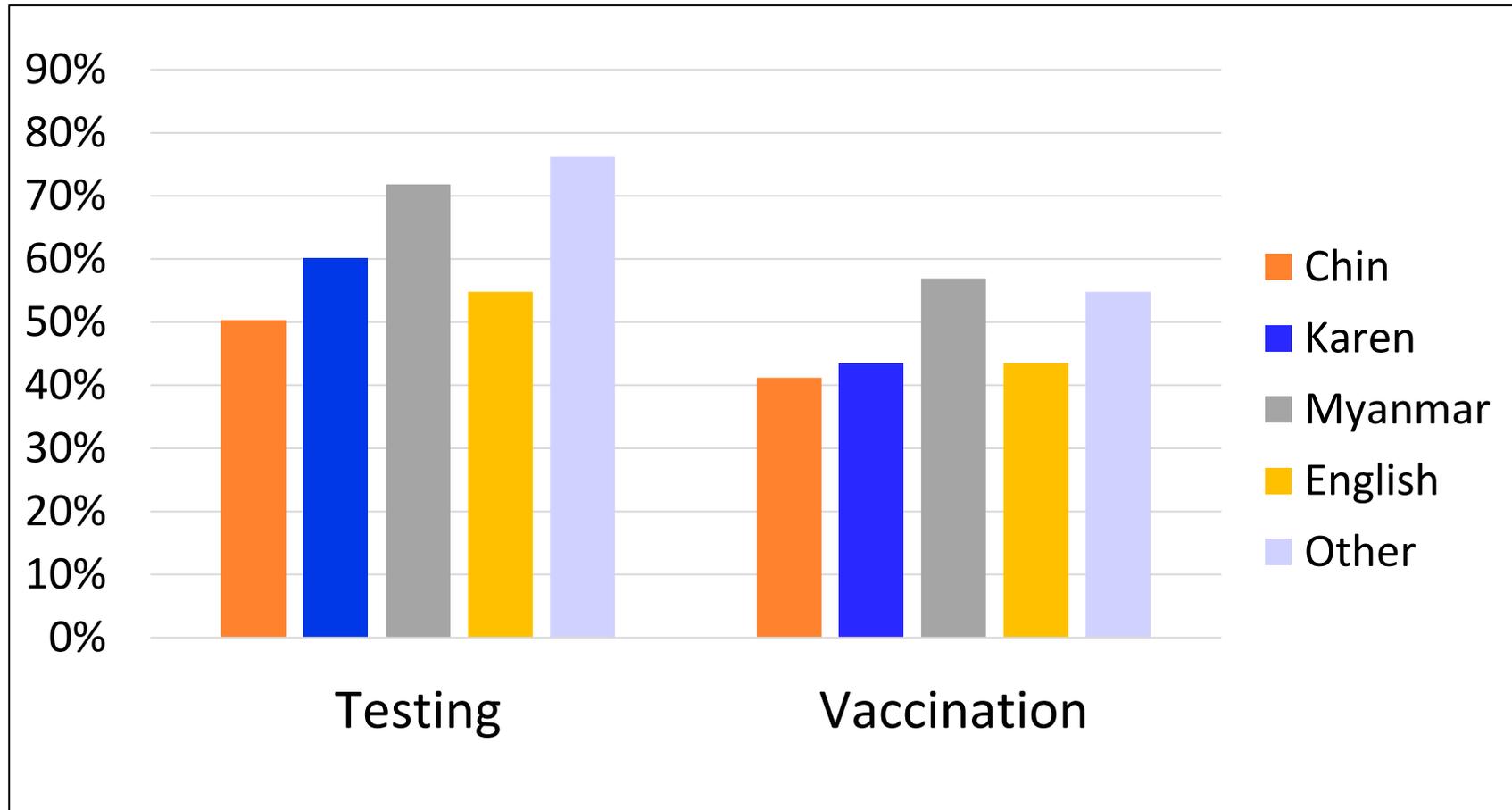


$p = .017$
(Chi-square test)

Results: Association Between 'Self-Reported English Language Skills' and 'Hepatitis B Knowledge Score Range'

	Very well	Well	Not well	Not at all	<i>p</i> -value
Listening					
Low (<= 3)	7.2%	13.5%	15.6%	20.0%	0.029
High (6 to 7)	64.8%	56.1%	53.6%	40.0%	
Speaking					
Low (<= 3)	7.4%	13.6%	14.6%	20.0%	0.023
High (6 to 7)	65.9%	54.9%	54.2%	40.0%	
Reading or writing					
Low (<= 3)	7.3%	11.9%	16.1%	16.7%	0.018
High (6 to 7)	65.7%	56.0%	53.7%	50.0%	

Results: Association Between 'Main Language Spoken at Home' and 'Self-Reported Hepatitis B Testing and Vaccination History'



■ Testing

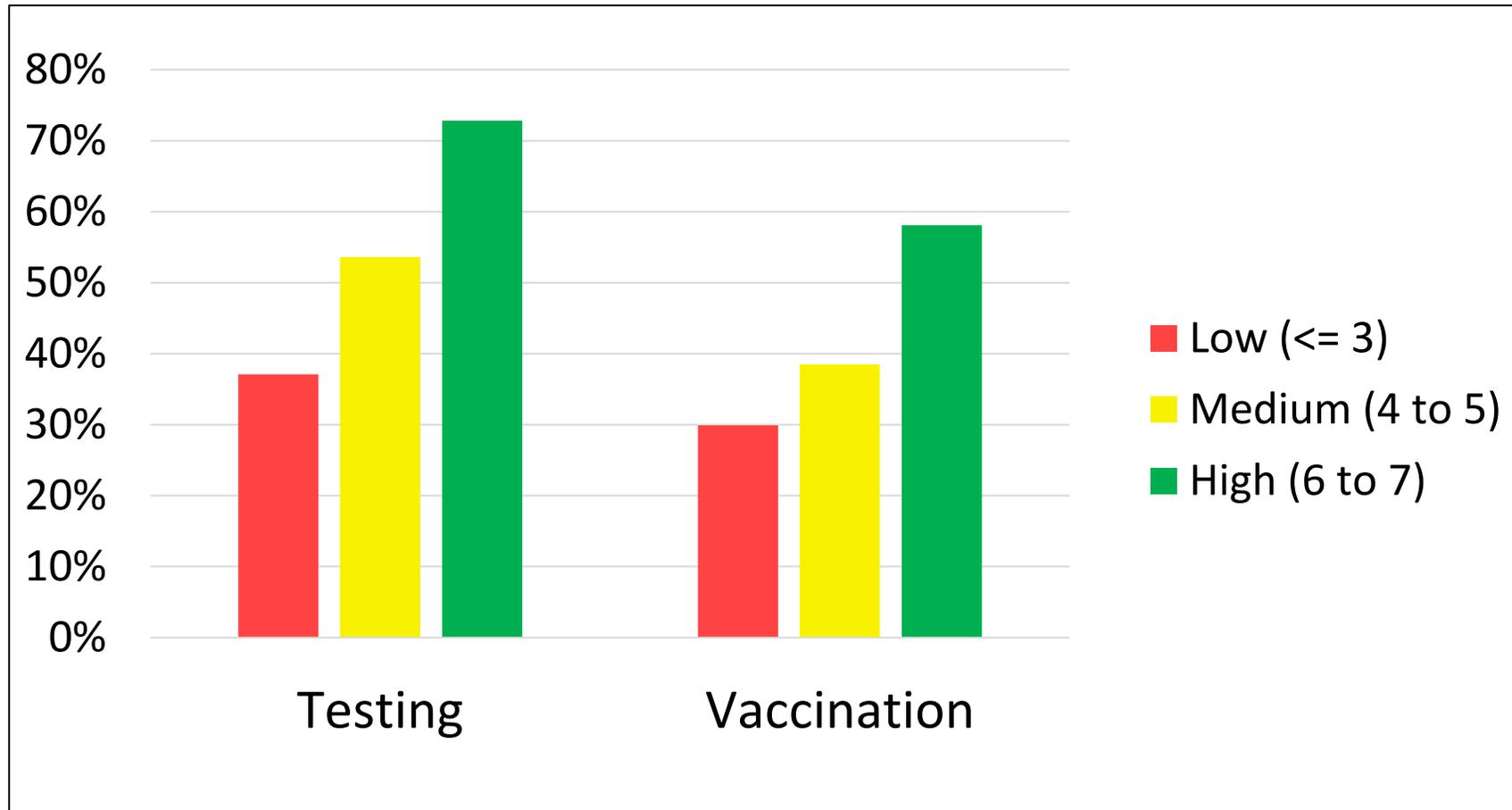
($p < .001$)

■ Vaccination

($p = .002$)

(Chi-square test)

Results: Association Between 'Knowledge Score' and 'Self-Reported Hepatitis B Testing and Vaccination History'



- Testing
($p < .001$)
- Vaccination
($p < .001$)
(Chi-square test)

Results: Predictors of ‘Self-Reported Hepatitis B Testing and Vaccination History’

		Testing	Vaccination
		Estimated multinomial logistic regression coefficients	
Knowledge score	Low	- 1.510*	-1.162*
	Medium	-0.840*	-0.794*
<p>*<i>p</i> value <0.001, Multinomial regression.</p> <p>The model remains equivalent when age, sex, last country, main language spoken at home, and self-reported English language skills are included as covariates.</p>			

Discussion: Knowledge Scores

Year	Study Site	Country of Birth	Knowledge Score	Maximum Score
2021	WA	Myanmar	5.30 +/- 1.42	7
2011 ⁽¹⁰⁾	Queensland	Myanmar	6.22 +/- 2.62	11
2009 ⁽¹¹⁾	Queensland	China, Vietnam	6.66 +/- 2.04	11
2002 ⁽¹²⁾	New South Wales	Vietnam	4.4 +/- 0.4	10
2001-2002 ⁽¹³⁾	National	Any (including Australia)	6.1, 95% CI 6.1 - 6.2	10

Discussion: Misconception of hepatitis B transmission through sharing food or eating utensils

- **Awareness that hepatitis B cannot be transmitted through food or eating utensils**
 - **32.7%:** Current study
 - **44%:** Myanmar in Queensland, 2011 ⁽¹⁰⁾
 - **32%:** Chinese in Queensland, 2009 ⁽¹¹⁾
 - **23%:** Vietnamese in Queensland, 2009 ⁽¹¹⁾
- Qualitative interviews with 22 Vietnamese and 15 Chinese people living with HBV in Victoria, 2015-2016: the **misconception of hepatitis B transmitting through sharing food was the main reason for discrimination** towards people living with hepatitis B ⁽¹⁴⁾

Discussion: Hepatitis B Among Chin Ethnic Group

- **CHB prevalence** among Myanmar refugees **originating from Malaysia** and residing in the state of Texas in the United States from 2009 to 2012: **6%**. ⁽¹⁵⁾
- **Past or current hepatitis B infection rate** among Myanmar adult refugees of which the majority were from the **Chin ethnic group (42.6%)** > adult refugees from the Africa and Middle East regions (27.0%), the state of Indiana in the United States, 2016-2017 ($p < 0.001$) ⁽¹⁶⁾

Discussion: Strengths and Limitations of the Current Study

- Strengths
 - Designed to recruit respondents from different backgrounds
- Limitations
 - Non-probability sampling

Information Leaflet

*** How do you get hepatitis B?**
✓ How do you prevent getting hepatitis B?

- * From mother with hepatitis B to baby during birth
 - ✓ Receive routine antenatal care.
 - ✓ Follow the advice of doctors/ nurses.
- * Unprotected vaginal or anal sex (without using a condom) through semen, vaginal fluids, and blood
 - ✓ Use condom.
- * Unprotected oral sex, when there are open cuts, ulcers or sores in the mouth
 - ✓ Use single-use sterile needles, syringes and other medical equipment.
 - ✓ Seek health care from registered health care personnel only.
- * Caring someone who has a bleeding wound or cleaning blood spills (fresh or dry) when there is any cuts or abrasion on your skin
 - ✓ Wear gloves.
 - ✓ Protect your cut or abrasion from being contaminated with other person's blood.
- * Reusing used needles, syringes and other medical equipment, for example, receiving health care from unregistered or untrained persons
 - ✓ Use single-use sterile needles, syringes and other medical equipment.
 - ✓ Seek health care from registered health care personnel only.
- * Injectable drug use: sharing syringes, needles, filters, spoons, tourniquets or swabs
 - ✓ Don't share.
- * Sharing personal items, for example, toothbrushes, razors, or tweezers
 - ✓ Don't share personal items.
- * Unsterilised equipment in tattooing and body piercing
 - ✓ Use sterile equipment.
- * Blood transfusions: performed in Australia before 1990 or currently overseas in countries that don't screen blood or blood products
 - ✓ If you had a blood transfusion in the past and you are not sure whether it is safe, talk to your general practitioner (GP).

- * အကာအကွယ် - ကွန်ဒုံမပါဘဲ မိန်းမကိုယ်ယောဗိုလမ်းကြောင်းမှ ဖြစ်စေ၊ စေ့ခိုလမ်းကြောင်းမှ ဖြစ်စေ လိင်ဆက်ဆံပါက သူကံရည်၊ မိန်းမကိုယ်မှ ထွက်သော အရည်နှင့် သွေးတို့မှ ကူးစက်နိုင်ပါသည်။
 - ✓ ကွန်ဒုံဆွဲသုံးပါ။
- * အသုံးပြုပြီးသား ဆေးထိုးအိမ်၊ ဆေးထိုးပြန် အပဟောင်းများကို သုံးခြင်းမှ ကူးစက်နိုင်ပါသည်။ ဥပမာ - တရားမဝင် ဆေးကုသသော သူများထံတွင် ဆေးကုသမှု ခံယူခြင်း။
 - ✓ တစ်ခါသုံး ဆေးထိုးအိမ်၊ ဆေးထိုးပြန်များကိုသာ သုံးပါ။
 - ✓ တရားဝင် ဆေးကုသသော သူများထံမှသာ ဆေးကုသမှု ခံယူပါ။
- * အခြားသူ၏ သွေးထွက်နေသော အနာဒဏ်ရာကို ကိုင်တွယ်ခြင်း၊ သွေးစွန်းပေးနေသည့် အရာများကို (သွေးရည်ဖြစ်စေ၊ ခြောက်နေသော သွေးကွက်ဖြစ်စေ) သန့်ရှင်းခြင်း ပြုလုပ်သောအခါ သင်၏လက်တွင် ပေါက်ပြဲနေသော အနာဒဏ်ရာများ ရှိပါက ကူးစက်နိုင်ပါသည်။
 - ✓ လက်ဆိတ်သုံးပါ။
 - ✓ သင်၏ ပေါက်ပြဲနေသော အနာ ဒဏ်ရာများနှင့် အခြားသူများ၏ သွေးမထိမီအောင် ဂရုစိုက်ပါ။
- * သွေးကြောအတွင်းသို့ များပစ်ဆေးထိုးသွင်းသောအခါ ဆေးထိုးပြန်၊ ဆေးထိုးအိမ်၊ စွန်း၊ ဆေးထိုးရတုတွင် သုံးသော သားရေကြီးနှင့် ငါးရိုးတို့ကို အခြားသူများနှင့် မျှဝေ သုံးစွဲခြင်းမှ ကူးစက်နိုင်ပါသည်။
 - ✓ အခြားသူများနှင့် မျှဝေ၍ မသုံးရန်။
- * တစ်ကိုယ်ရေသုံးပစ္စည်းများ (ဥပမာ - သွားတိုက်တံ၊ အမွှေးရိတ်ကူတံ၊ ဇာဂနာ) တို့ကို အခြားသူများနှင့် မျှဝေသုံးစွဲခြင်းမှ ကူးစက်နိုင်ပါသည်။
 - ✓ အခြားသူများနှင့် မျှဝေ၍ မသုံးရန်။
- * တက်တူးထိုးခြင်း (ဆေးမင်ကြောင်/ ထိုးကွင်း)၊ အလှအပ အတွက် ခန္ဓာကိုယ်တွင် အပေါက်များဖောက်ခြင်းတို့ ပြုလုပ် ရာတွင် ဝါးသတ်မထားသော ပစ္စည်းကိရိယာများ သုံးခြင်းမှ ကူးစက်နိုင်ပါသည်။
 - ✓ ဝါးသတ်ထားသည့် ပစ္စည်းကိရိယာများကိုသာ သုံးရန်။
- * သွေးသွင်းခြင်း - ဩစတြေးလျနိုင်ငံအတွင်း ၁၉၉၀ ခုနှစ် မတိုင်မီ သွေးသွင်းကုသမှု ခံယူခဲ့ဖူးပါက (သို့မဟုတ်) သွေးနှင့် သွေးပစ္စည်းများကို ကောင်းစွာ စစ်ဆေးထားခြင်းမရှိသော နိုင်ငံများတွင် သွေးသွင်းကုသမှု ခံယူခဲ့ဖူးပါက ကူးစက် နိုင်ပါသည်။
 - ✓ သွေးသွင်းကုသမှု ခံယူခဲ့ဖူးပါက၊ ထိုသွေးမှာ စစ်ဆေးထားသော သွေး ဟုတ် / မဟုတ် မသေချာပါက ဆရာဝန်နှင့် တိုင်ပင်ဆွေးနွေးပါ။

Conclusions

- **Medium HBV knowledge: knowledge gap** among Myanmar-born communities in Perth; **requirement of continued public health interventions** promoting HBV knowledge, testing, and vaccination among the study population, **especially the fact that it is safe to share eating utensils with people living with HBV**, which might help reduce discrimination towards people living with HBV
- Hepatitis B **health promotion** interventions: **especially among the Chin ethnic groups** living in the Perth metropolitan area
- **Each group has different understandings and levels of knowledge**: no single approach will be successful; the best responses will be those that are **designed and delivered in partnership with different communities**

References

1. McCulloch K, 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 2020. WHO Collaborating Centre for Viral Hepatitis, The Doherty Institute; 2021.
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THANK YOU

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