



Research
Institute for Resilient Regions

***HEALTH BEHAVIOURS AND HEALTH LITERACY:
HEPATITIS B REGARDING SUB-SAHARAN
AFRICAN MIGRANTS LIVING IN QUEENSLAND***

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**Ethnic Communities
Council of Queensland**





Main Collaborators

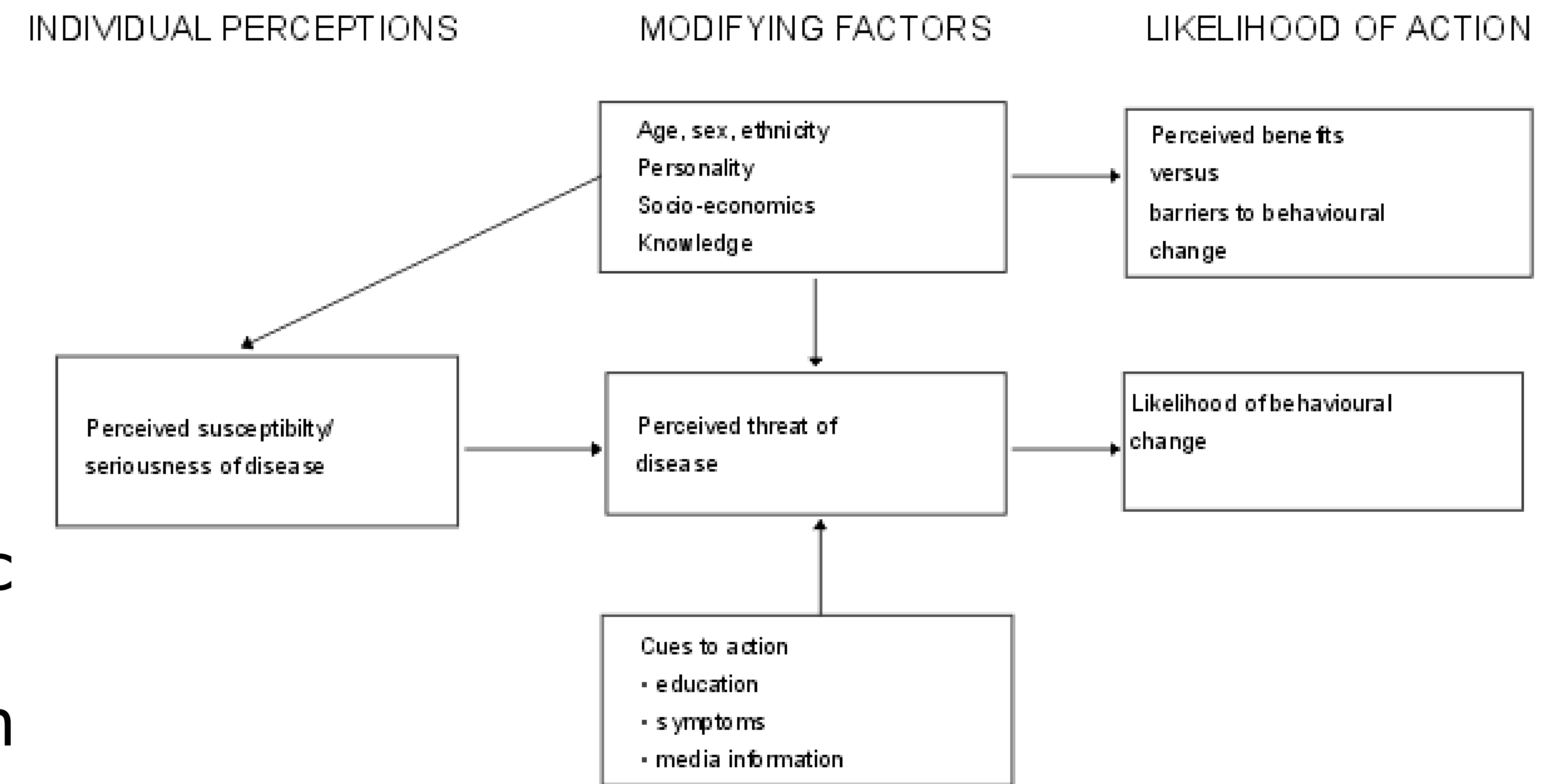
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- ECCQ: Fungisai Siggins, Zhihong Gu, Cultural Workers
- Metro North Public Health Unit: Dr Joe Debattista
- Hepatitis Queensland

Background

- Hepatitis B (HBV) –causes damage to the liver (Lavanchy, 2004)
- Transferred through contact with blood, unprotected sexual intercourse, and childbirth (Papastergiou, et al., 2015)
- 50% of people in Australia living with HBV are not aware (WHO, 2014)
- Increased vulnerability-Sub-Saharan African and Asian migrants (Apata & Averhoff, 2014)
- Improving health literacy skills may improve engagement (Nutbeam, 2008)
- Current study draws on the previous research methodology re: other at-risk communities (Vietnamese, Burmese and Chinese; e.g., Le, Debattista, & Gu, Z., 2014; Vu, et al., 2012)

Theory: Health Literacy and Health Beliefs Model

- Health Beliefs model explores factors which influence health behaviour and outcomes
- Health literacy is a modifying factor within the model
- Health Literacy Definition: “the constellation of skills, including the ability to perform basic reading and numerical tasks required to function in the health care environment, such as the ability to read and comprehend prescription bottles, appointment slips, and other essential health-related materials.” (American Medical Association, 1999)



Source: https://www.utwente.nl/en/bms/communication-theories/sorted-by-cluster/Health%20Communication/Health_Belief_Model/

Objectives, Research Questions and Hypotheses

Objective:

- Investigate how health literacy and demographic factors influence health behaviour and outcomes regarding HBV among sub-Saharan African communities

Research Questions:

- Do health literacy factors predict HBV knowledge and health-protective behaviours (e.g. HBV vaccinations and screenings)?
- Does HBV knowledge mediate health literacy and behaviour?
- What factors are associated with health literacy, health-protective behaviour and HBV knowledge?

Objectives, Research Questions and Hypotheses

Hypotheses:

1. Health literacy will significantly predict levels of HBV knowledge and health behaviours (e.g., HBV screening and vaccinations)
2. Positive relationship between health literacy and health behaviours will be mediated by HBV knowledge
3. Positive relationship between health literacy and health-protective behaviours will be mediated by HBV knowledge
4. Significant differences regarding health literacy will be found regarding demographic factors

Method: Participants

- 177 SSA migrant participants were recruited by cultural workers via awareness stalls (cultural festivals, information stalls). Verbal consent was obtained.
- Self report: HBV knowledge, health literacy and health-protective behaviours; via cross-sectional surveys.
- After participants completed the survey, cultural workers debriefed with participants; exploring their understanding of HBV with education provided

Method: Survey Design

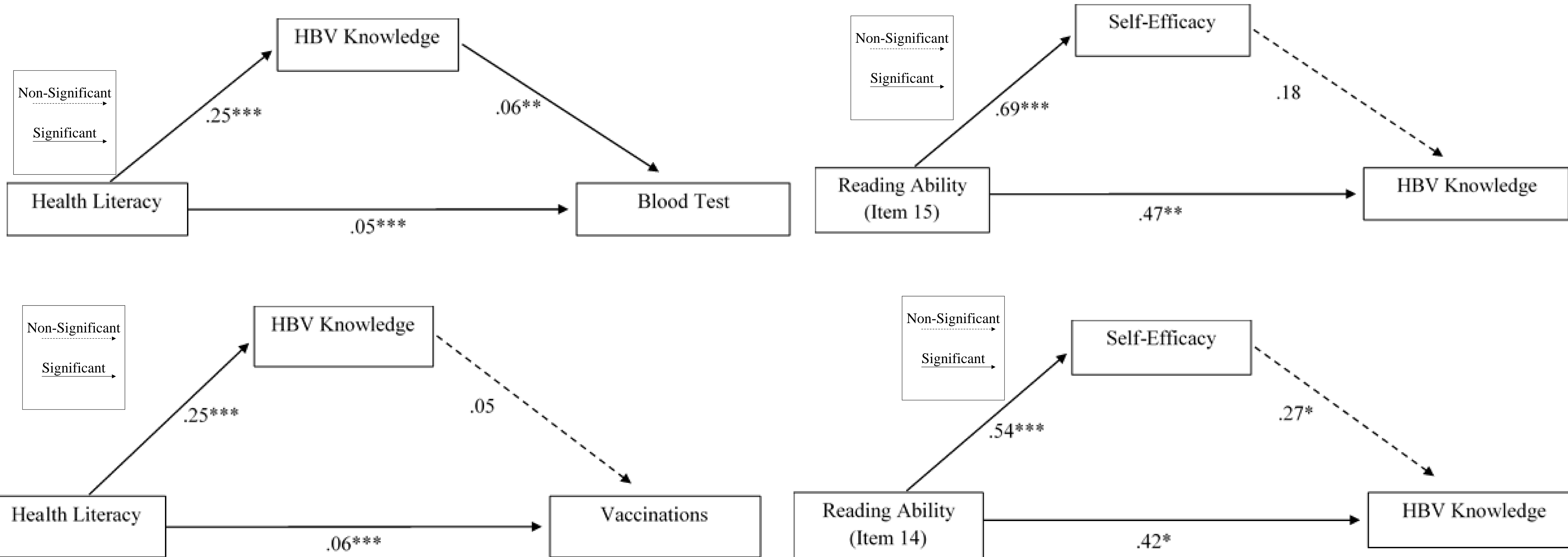
- Current study replicated a cross-sectional survey which included items regarding:
 - Hepatitis b knowledge (11 dichotomous questions on transmission of HBV)
 - Demographic information (age, country of birth, home language, education)
 - Health behaviour (HBV screening and vaccinations)
- Three additional items directly related to health literacy from the Short Test of Functional Health Literacy in Adults were included

Variable	Point Scale	No. Items	M	SD	α
Health Literacy	5	3	11.28	3.71	.81
HBV Knowledge	3	11	16.70	4.60	.75
Health Behaviour	3	2	4.24	1.46	.78

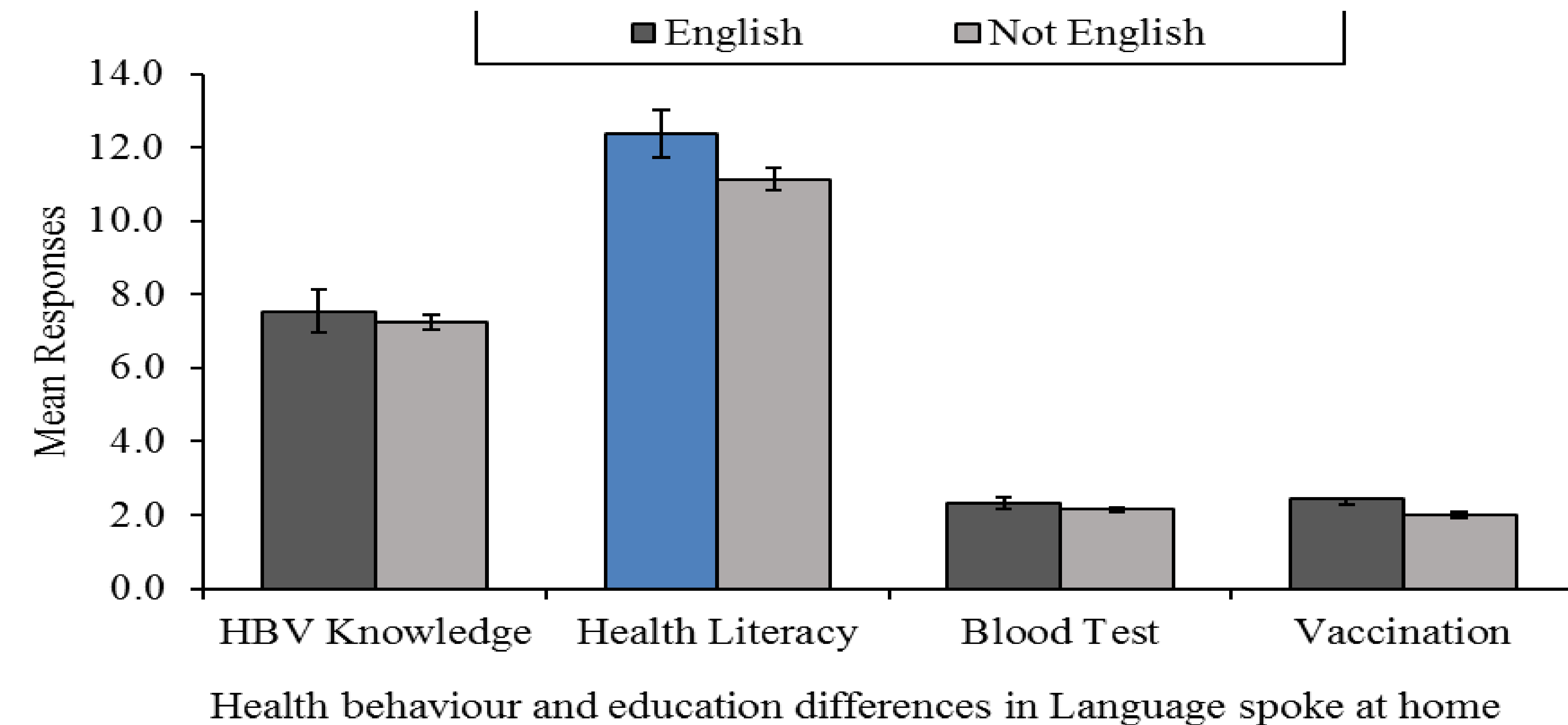
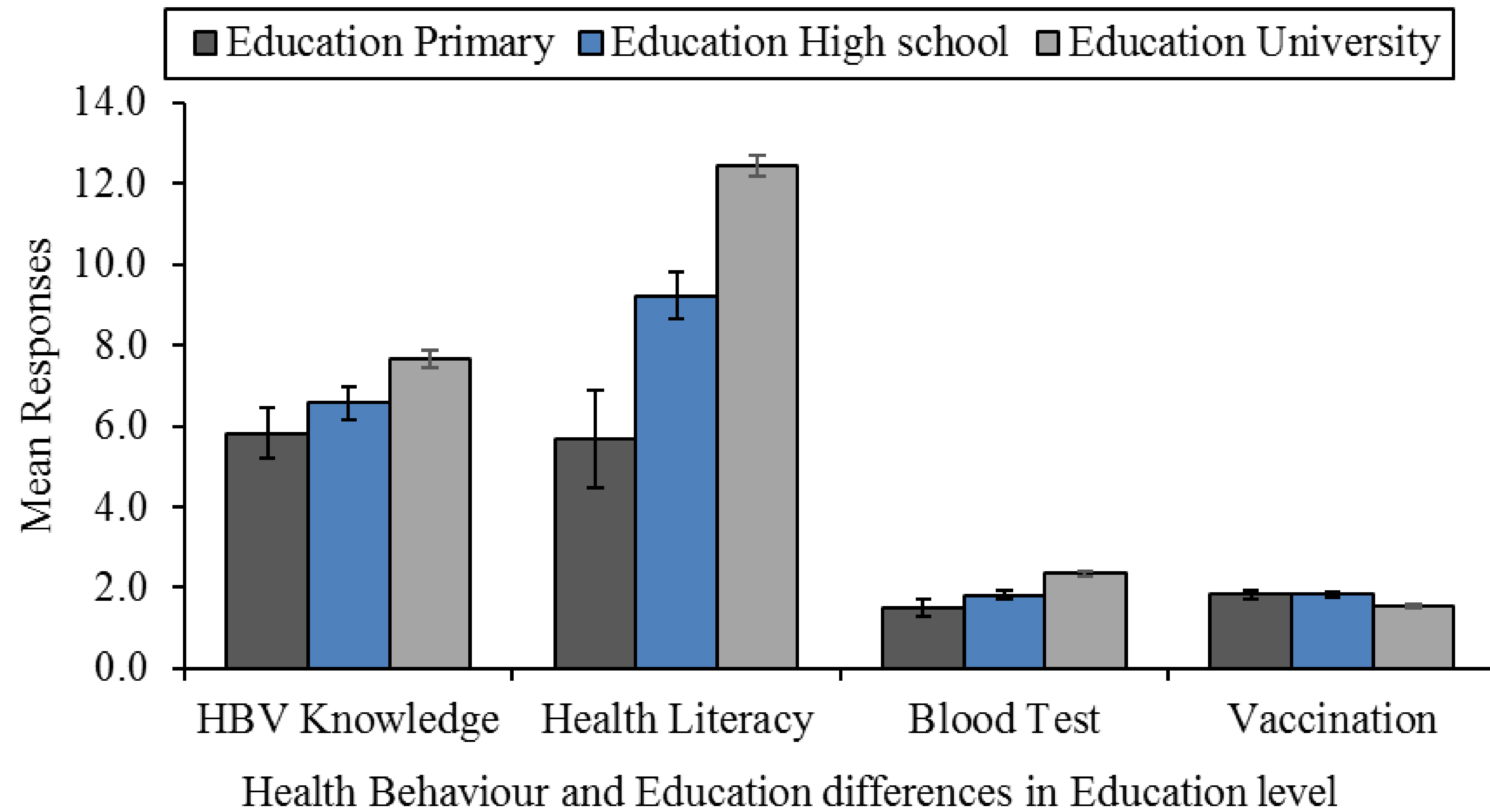
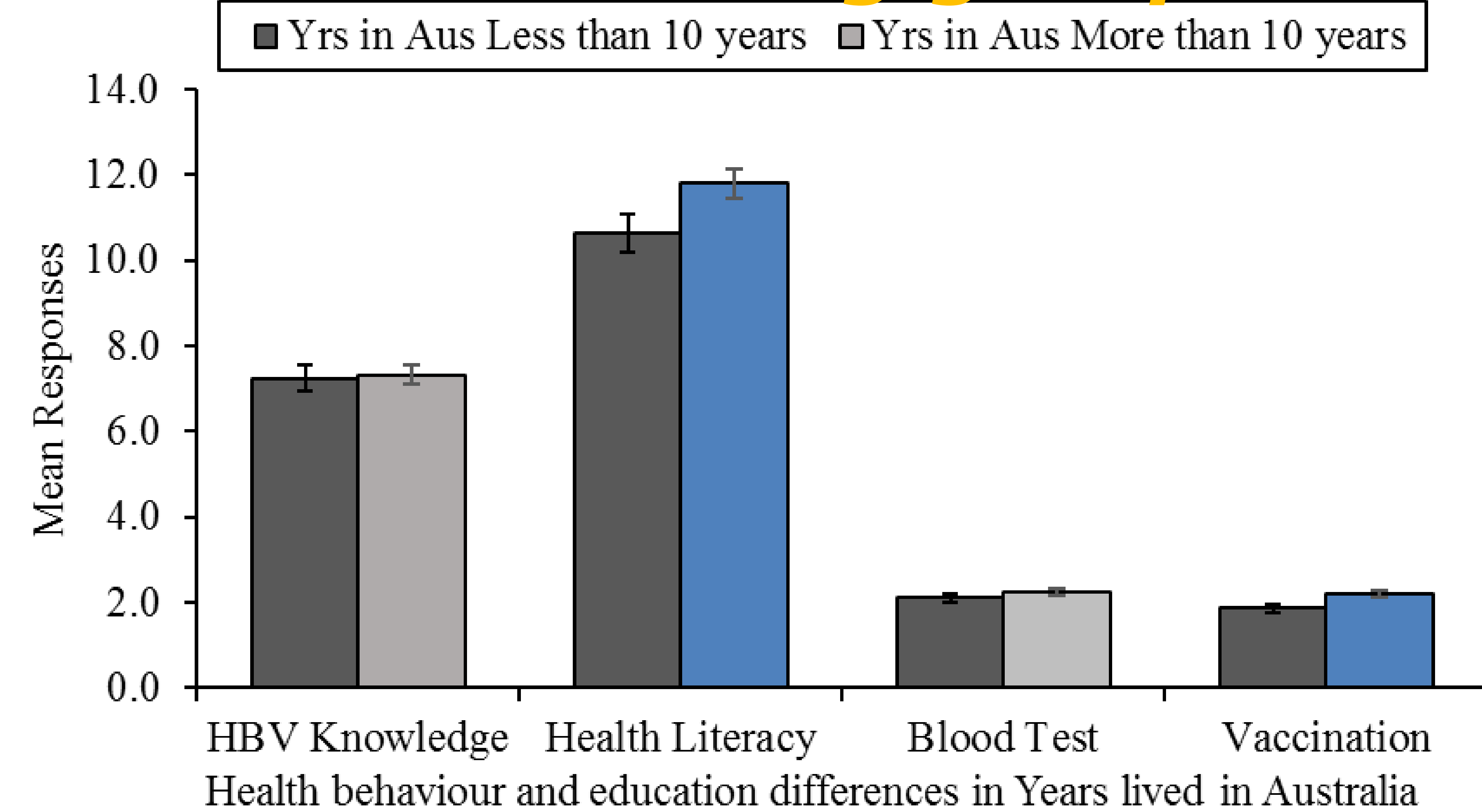
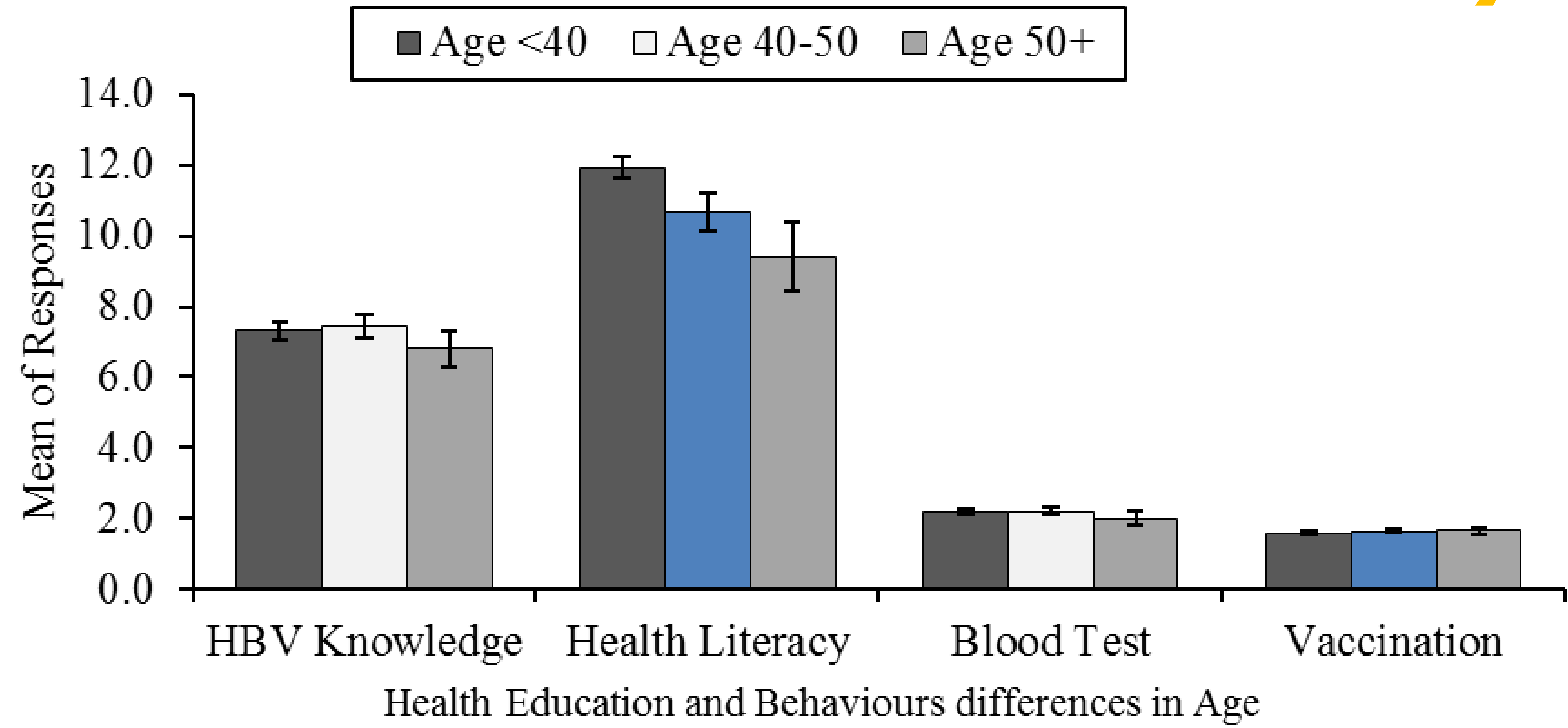
Health Literacy predicting Health Behaviour and Knowledge

Variable	B	SE B	β	sr ²	p-value	95% CI	
						Lower	Upper
HBV Knowledge							
Health Literacy Item 14	.30	.16	.17	.13	.061	-.01	.61
Health Literacy Item 15	.33	.18	.19	.13	.071	-.03	.70
Health Literacy Item 16	.13	.15	.08	.06	.385	-.17	.43
					<i>Proportion of Variance Explained $\Delta R^2 = .14$ (Adj. $R^2 = .13$) $\Delta F(3, 173) = 9.65^{***}, p < .001$</i>		
HBV Vaccinations							
Health Literacy Item 14	.09	.06	.15	.11	.116	-.02	.20
Health Literacy Item 15	-.05	.06	-.08	-.06	.436	-.17	.08
Health Literacy Item 16	.17	.05	.30**	.22	.002	.06	.27
					<i>Proportion of Variance Explained $\Delta R^2 = .12$ (Adj. $R^2 = .10$) $\Delta F(3, 173) = 7.51^{***}, p < .001$</i>		
HBV Blood Test							
Health Literacy Item 14	.07	.05	.13	.10	.166	-.03	.16
Health Literacy Item 15	.01	.06	.01	.01	.921	-.10	.12
Health Literacy Item 16	.13	.05	.26*	.19	.007	.04	.22
					<i>Proportion of Variance Explained $\Delta R^2 = .12$ (Adj. $R^2 = .11$) $\Delta F(3, 173) = 8.01^{***}, p < .001$</i>		

Mediation Model for HBV Knowledge and Health Behaviours



Differences in Health Literacy and Health Behaviour among groups



Discussion

1. Health literacy items 14, 15 and 16 will significantly predict levels of HBV knowledge and health behaviours (e.g., HBV screening and vaccinations).
 - *Item 16 of the HL scale (related to Self-efficacy) significantly predicted health-protective behaviours. This finding supports the HBM as, it states that for one to be able to engage in health behaviours, they must believe they are capable of doing so. This supports our hypothesis*
 - *Items 14 and 15 of the HL scale (related to reading ability) did not significantly predict health-protective behaviours. However, as the P-value was close to .05, with a larger sample size, this may change to a significant prediction.*
2. Positive relationship between health literacy and health behaviours will be mediated by HBV knowledge
 - *The positive relationship between health literacy and screening was mediated by HBV knowledge. This supports the hypothesis*
 - *The positive relationship between health literacy and vaccinations was not mediated by HBV knowledge.*

Discussion

3. Positive relationship between health literacy and health-protective behaviours will be mediated by HBV knowledge

- *The positive relationship between health literacy and health-protective behaviours were not mediated by HBV knowledge. This does not support the hypothesis.*

4. Significant differences regarding health literacy re: demographic factors

- *Under 40 yo higher health literacy scores than over 40*
- *Participants who have studied at University attained higher HBV knowledge scores than those completing a maximum of primary or high school education*
- *Participants who have studied at University were more likely to have had a blood test for HBV than those who completed high school or primary school*
- *Participants who had completed high school or primary school were more likely to have had vaccinations against HBV*
- *Participants who have lived in Australia for more than 10 years received higher health literacy scores and were more like vaccinated than those who had lived in Australia for less than 10 years.*

Limitations and Future Research

Limitations

- Time between self-reported health literacy and health behaviours
- Over-representation with higher former education; Sample; Validity of responses

Future Implications (Health Promotion) and Research

- Increasing education to support health literacy
- Explore peer-support and mentoring in health promotion and increase cultural support
- Increased education and screening among older migrants with lower education
- Larger sample with greater representation, sub-group
- Assess and refine psychometric properties of the HBV knowledge items
- Explore how stigma and fear of deportation may influence health behaviours (Santos-Hovener, et al, 2015)
- Explore how other HL skills influence health behaviour and knowledge

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