

# INPLASY PROTOCOL

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## General health literacy in Malaysia: protocol of a systematic review of Malaysian studies

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**Support:** International Medical University.

**Review Stage at time of this submission:** Preliminary searches.

**Conflicts of interest:**  
None declared.

**Review question / Objective:** What is the prevalence of limited health literacy among adolescents and adults in Malaysia, and is there any social-demographic differences?

**Condition being studied:** Health literacy. It is the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others. It can be measured using various rating scales such as Health Literacy Survey (various versions), Newest Vital Sign and Test of Functional Health Literacy in Adults (various versions) and others.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 March 2023 and was last updated on 14 March 2023 (registration number INPLASY202330046).

### INTRODUCTION

**Review question / Objective:** What is the prevalence of limited health literacy among adolescents and adults in Malaysia, and is there any social-demographic differences?

**Rationale:** This study aims to document the prevalence of limited health literacy of Malaysian adolescents and adults. These data will assist future health literacy

research and related interventional studies in Malaysia.

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Vital Sign and Test of Functional Health Literacy in Adults (various versions) and others.

## METHODS

**Search strategy:** We plan to search bibliographic databases for Malaysian quantitative studies that measured health literacy using a rating scale. Bibliographic search using MESH terms or keywords: health literacy, Malaysia. There is no limit to the year of publication of included studies.

**Participant or population:** Adolescent and adults in Malaysia.

**Intervention:** Adolescent and adults in Malaysia.

**Comparator:** Subgroups (e.g., gender, ethnicity, education).

**Study designs to be included:** Cross-sectional studies

**Eligibility criteria:** (a) Study participants are adolescents and adults; (b) Studies conducted in Malaysia; (c) Used a rating scale to measure health literacy.

**Information sources:** An extensive literature search using a combination of MESH terms (health literacy; Malaysia) will be carried out on electronic databases such as PubMed, Scopus, and supplemented by a Google Scholar search using the same search terms.

**Main outcome(s):** Health literacy score or proportion.

**Additional outcome(s):** None.

**Data management:** References retrieved will be managed using citation manager EndNote 20.

**Quality assessment / Risk of bias analysis:** The studies identified will then be assessed for methodological validity using Newcastle Ottawa Scale. Relevant data (number of participants with and without limited health literacy, mean score of health literacy

scale) in the included studies will be extracted by a pair of investigators independently, to minimize potential bias and error as well as to resolve any disagreements.

**Strategy of data synthesis:** Meta-analysis will be performed using MedCalc Statistical Software. For meta-analysis of studies with a continuous measure (comparison of means between treated cases and controls), MedCalc uses the Hedges g statistic as a formulation for the standardized mean difference under the fixed effects model. The heterogeneity statistic is incorporated to calculate the summary standardized mean difference under the random effects model. MedCalc uses a Freeman-Tukey transformation to calculate the weighted summary Proportion under the fixed and random effects model.

**Subgroup analysis:** (a) Gender; (b) Ethnic groups; (c) Education.

**Sensitivity analysis:** None.

**Language restriction:** None.

**Country(ies) involved:** Malaysia.

**Other relevant information:** This systematic review will be prepared following PRISMA guidelines.

**Keywords:** Adult; Education; Ethnic Groups; Health Literacy; Malaysia; Meta-Analysis; Sex Factors.

**Dissemination plans:** Publication of manuscript in a journal.

**Contributions of each author:**

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