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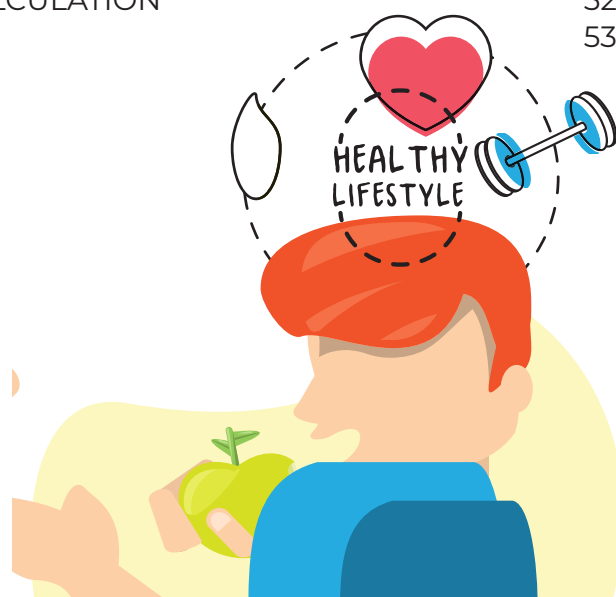
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# ABBREVIATIONS

ACRONYM	DESCRIPTION
BMI	Body mass index
CKD	Chronic kidney disease
COVID-19	Coronavirus disease 2019
CVD	Cardiovascular disease
DALY	Disability-adjusted life year
GBD	Global Burden of Disease
GERD	Gastro-esophageal reflux disease
GPS	Global Positioning System
HEI	Healthy Eating Index
HLI	Healthy Lifestyle Index
HLIS	Healthy Lifestyle Index Score
HLS	Healthy Lifestyle Score
HPC	Healthy Plate Concept
HRQOL	Health-related quality of life
IDHI	International Diet-Health Index
IHBR	Institute for Health Behavioural Research, MOH
MET	Metabolic rate
IPAQ	International Physical Activity Questionnaire
MHLI	Malaysian Healthy Lifestyle Index
MOH	Ministry of Health, Malaysia
MREC	Malaysian Medical Research and Ethics Committee, MOH
NCD	Noncommunicable disease
NHMS	National Health and Morbidity Survey
NIH	National Institutes of Health
T2DM	Type 2 diabetes mellitus
WHO	World Health Organization
YLL	Years of life lost

# EXECUTIVE SUMMARY

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This study was conducted in two phases. The first phase, focused on developing and validating the MHLI tool. The second phase focused on the baseline study of the Health Lifestyle Index assessment among Malaysians using the validated instrument. For the second phase of this study, the data was acquired using a face-to-face survey that employed a proportional stratified random sampling method. The sample was nationally representative, and 9,264 Malaysians aged 18 years and above were involved at the time of consent and could understand Bahasa Malaysia. The instrument was provided in Bahasa Malaysia and had 136 items. The items addressed several domains, including sociodemographics, health literacy, physical activity, healthy eating behaviour, healthy without smoking behaviour, healthy without alcohol consumption, and mental health. Each section consisted of relevant domains about the main constructs depicted in the literature.

According to the survey, more than half of the respondents (53.36%) had sufficient health literacy, while only 26.70% had excellent health literacy related to a healthy lifestyle. About 20.57% of the respondents had a limited literacy level. Though MOH has been promoting the importance of physical activities widely, our findings revealed that only 15.1% of the respondents engaged in physical activity daily. Meanwhile, 28.1% of Malaysians engage in moderate-intensity physical activity occasionally or never. This contrasts the findings about the physical activity culture; most respondents agreed to practice a good physical activity culture.

Consuming a healthy diet remains a major public health concern in Malaysia. The MOH has implemented numerous initiatives to combat this issue, and The Malaysian Dietary Guidelines were created to assist individuals and families in adopting a wholesome and nutritionally appropriate diet. Despite all the promotional activities, our study showed that the majority of respondents never followed the recommendations for a healthy plate at breakfast (55.5%), lunch (43.2%), and dinner (44.8%). Only about 11% of respondents claimed they follow the healthy plate recommendation daily during breakfast, lunch, and dinner. Most respondents also did not consume foods from the five major food categories daily.

Apart from a healthy diet, the dramatic increase in the prevalence of mental disorders over the past decade in Malaysia is staggering. Our study also addressed this issue, and we found that, even though the majority of respondents were aware of the public and private mental health services available, 62% of respondents said they would never seek professional assistance even if they were unable to manage their mental health problems. This supports the notion that the stigmatisation of mental illness has caused it to be a taboo subject among Malaysians. Thus, they are afraid to seek professional support.

The survey also discovered that out of 9,275 respondents, 20.11% were smokers, with the majority of them smoking conventional cigarettes. 29.10% use electronic cigarettes or vape, and about 15.22% use both conventional and electronic cigarettes. Of the 1,136 people

who consume alcohol, the majority (58.36%) consume it once a month or less, while only 3.61% consume it four or more times per week.

These findings were converted into an index score using 0 (minimum) to 1 (maximum). It is widely believed that the healthy lifestyle index corresponds to an individual's quality of life. Based on these scores, we concluded that more than half of the respondents (55%) have a deficient healthy lifestyle index score (below .34), while 5% of the respondents have an excellent score (0.55 and above).

In conclusion, the study achieved its objectives by creating an index that could measure Malaysians' health behaviours. This index could gauge and monitor society's healthy lifestyle behaviours. Besides, this index can also aid in identifying areas for development and establishing reasonable targets for increasing healthy lifestyle behaviours. Moreover, public health recommendations would also be a practical tool for counselling people on the effects of living by the recommendations to reduce the risk of certain diseases. Disease management and primary and secondary prevention can be carried out by having specific data on lifestyle behaviours and patterns, thus reducing the incidence of NCDs in the future.