

PREVALENCE OF SEDENTARY BEHAVIOUR AMONG ADOLESCENTS IN MALAYSIA: FINDINGS FROM A NATIONAL SCHOOL-BASED HEALTH SURVEY 2022

Nor'Ain Ab Wahab, Mohammad Aznuddin Abd Razak, Muhammad Solihin Rezali, Lim Kuang Kuay, Azli Baharuddin @ Shahrudin, Nazirah Alias, Norliza Shamsuddin, Nurul Haniyah Rosslan

Institute for Public Health, National Institutes of Health, Ministry of Health Malaysia.

Introduction

In recent years, there has been a significant increase in sedentary behaviour among teenagers, which means they are not physically active and spend excessive time sitting. This is worrisome because it can lead to various health issues like obesity, heart problems, and mental health disorders. The study aimed to determine the prevalence of sedentary behaviour among adolescents in Malaysia.

Methodology

A sub-analysis study of the National Health and Morbidity Survey 2022: Adolescent Health Survey (AHS) was conducted among secondary school students in Malaysia from June to July 2022. Data were obtained via a self-administered, structured, and validated questionnaire from the Global School-based Student Health Survey (GSHS). Sedentary behaviour was defined as sitting for 3 hours or more in a typical or usual day for leisure activity. Descriptive analysis was conducted using IBM SPSS Statistics version 25.0.



Results

Among the 33,523 adolescents involved in this study, 66.7% were found to have engaged in sedentary behaviour. There were significant differences in terms of sex, ethnicity, and form, with the highest prevalence observed among females (67.5%), Chinese (78.4%) and Form 4 (73.9%) students. There was an increase in the prevalence of Sedentary behaviour among adolescents in Malaysia from 47.3%¹ in GSHS 2012 to 50.1%¹ in 2017 and 66.7%² in the current survey.

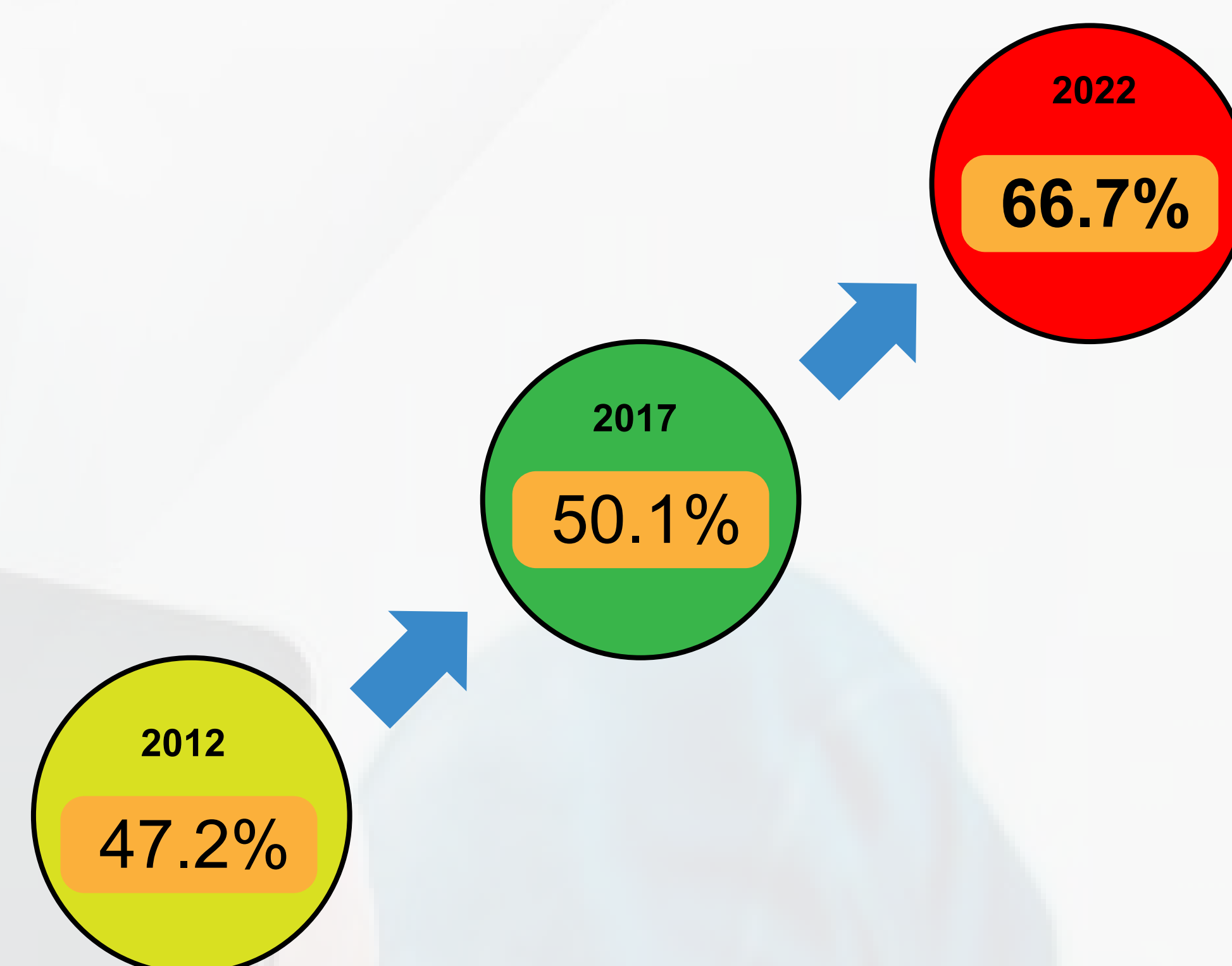
Table 1: Sample characteristics and sedentary behaviour status among adolescents in Malaysia by Sociodemographic and selected independent variables, NHMS 2023

Variables	Total sample, n (%)	Sedentary Behaviour	
		Sedentary, n (%)	P-value (X ²)
Overall	33449 (100.0)	22346 (66.7)	
Sex			0.021
Male	15443 (46.2)	10146 (65.8)	
Female	18006 (53.8)	12200 (67.5)	
Ethnicity			<0.001
Malay	23077 (69.0)	15230 (65.7)	
Chinese	5075 (15.2)	3947 (78.4)	
Indian	1549 (4.6)	796 (52.0)	
Bumiputera Sabah	1720 (5.1)	1135 (63.4)	
Bumiputera Sarawak	1239 (3.7)	748 (59.5)	
Others	789 (2.4)	490 (62.0)	
Form			<0.001
Form 1	7191 (21.5)	3911 (53.7)	
Form 2	6883 (20.6)	4413 (64.6)	
Form 3	6445 (19.3)	4615 (70.5)	
Form 4	6748 (20.2)	4935 (73.9)	
Form 5	6182 (18.5)	4472 (72.6)	

Discussion

1. This prevalence is relatively high compared to other middle-income countries such as Thailand (64.3%)⁴, Philippines (36.4%)⁵, Indonesia (29.6%)³ and Brunei (58.1%)⁶.
2. The increasing trend of this study in Malaysia shows a similar trend as the GSHS study that has been conducted in the Philippines in 2007, 2011 and 2019 and the prevalence of Sedentary behaviour was 32.7%, 33.9% and 36.4%⁵ respectively.
3. Sedentary behaviour was higher among females compared to males, similar to study conducted in ASEAN⁷ and in Brazil⁸. However, there are higher prevalence in males in other study conducted in Iran⁹ and United Arab Emirates¹⁰.

FIGURE 1: Sedentary behaviour trends among adolescent



Conclusion

Two out of three adolescents were found to practice sedentary behaviour, with an increased prevalence in the current study compared to previous studies conducted in 2012 and 2017. This problem seems to be more prevalent among females, Form 4 and Chinese students. Implementing effective strategies that reduce sedentary behaviour and promote regular physical activity are vital to support the health and well-being of adolescents.

Acknowledgement

The authors would like to thank the Director General of Health, for permission to present this poster

References

1. Institute for Public Health (IPH) 2017. Physical Activity, Technical Report National Health and Morbidity Survey (NHMS) 2017, Adolescent Health Survey, Malaysia.
2. Institute for Public Health (IPH) 2022. Physical Activity, Technical Report National Health and Morbidity Survey (NHMS) 2022: Adolescent Health Survey, Malaysia.
3. WHO. Data Reporting. GSHS Country Report Indonesia (Bahasa). 2015. <https://www.who.int/publications/m/item/2015-gshs-country-report-indonesia-bahasa>
4. WHO. Data Reporting. GSHS Fact Sheet Thailand. 2021. <https://www.who.int/publications/m/item/2021-gshs-fact-sheet-thailand>
5. WHO. Data Reporting. GSHS Fact Sheet Philippines. 2019. <https://www.who.int/publications/m/item/2019-gshs-fact-sheet-philippines>
6. WHO. Data Reporting. STEPS Fact Sheet Brunei 2015-16. <https://www.who.int/publications/m/item/2015-16-steps-fact-sheet-brunei-darussalam>
7. Peltzer, K., Pengpid, S., Leisure Time Physical Inactivity and Sedentary Behaviour and Lifestyle Correlates among Students Aged 13015 in the Association of South Asian National (ASEAN) Member States, 2007-2013. Int. J. Environ. Res. Public Health 2016, 13(2), 217. <https://doi.org/10.3390/ijerph13020217>
8. Dias, P.J.P. et al., Prevalence and Factors Associated with Sedentary Behaviour in Adolescents, Rev Saude Publica 2014;48(2):1-8. DOI:10.1590/S0034-8910.2014048004635.
9. Ziaei, R., Mohammadi, R., Dastgiri, S. et al., The prevalence and correlates of physical activity / inactivity and sedentary behaviour among high-school adolescents in Iran: A cross-sectional study. J Public Health (Berl.). From Theory to Practice (2022) 30:1121-1131.
10. Al Subhi, L.K., Bose, S., Prevalence of Physically Active and Sedentary Adolescents in 10 Eastern Mediterranean Countries and its Reaction with Age, Sex and Body Mass Index. Journal Physical Activity and Health, 2015 Feb.12(2):257-265.