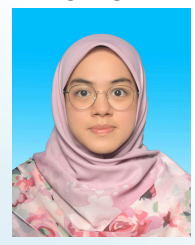
EP026

LIFESTYLE DRIVERS OF ABDOMINAL OBESITY IN MALAYSIA: FINDINGS FROM THE NHMS 2024

MINISTRY OF HEALTH MALAYSIA
INSTITUTE FOR HEALTH BEHAVIOURAL RESEARCH

Nurul Najiha Mohammad Nor[1], Azli Baharudin[1], Nurzaime Zulaily[1], Thamil Arasu Saminathan[1]

[1] Institute for Public Health, National Institutes of Health, Ministry of Health, Malaysia



1. Introduction

- Abdominal (visceral) fat presents a significant public health challenge because it is more strongly linked to chronic diseases than general obesity.
- Abdominal obesity is the main sign of metabolic syndrome.
- Moving toward retirement or balancing family and work roles can disrupt healthy habits.
- Updated data from NHMS 2024 is needed to identify the high-risk groups and the behavioural patterns leading to metabolic health issues.

2. Objectives

- To determine the national prevalence of abdominal obesity among Malaysian adults.
- To identify the sociodemographic and health factors that act as markers for behavioural risk.

3. Methodology

- **Study Design:** Nationwide community-based cross-sectional study conducted in 2024.
- **Sampling:** Two-stage stratified random sampling.
- **Diagnostic Criteria:** WHO Asian-specific (1) criteria, waist circumference of

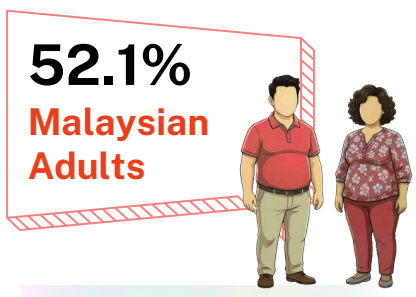
⩾ **90 cm** ⩾ **80 cm**

- **Statistical Analysis:** Descriptive statistics and multivariable logistic regression analysis were performed using SPSS version 29, incorporating complex sampling design analysis. Associated factors, were reported using adjusted odds ratios (aOR) with 95% confidence intervals.

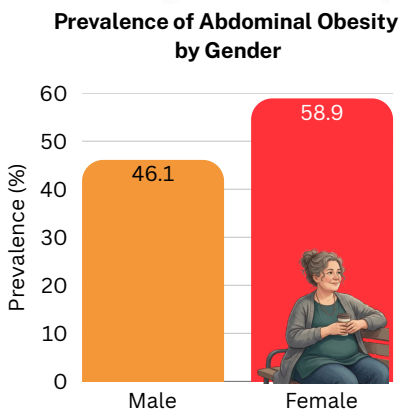
4. Results

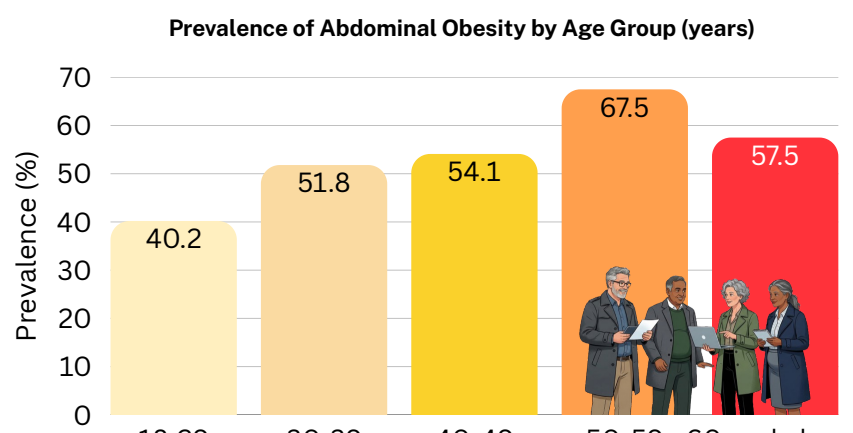
Table 1: Abdominal obesity among adults in Malaysia (n = 1, 435)

Characteristics	n	Estimated population	Prevalence (95% CI)	Adjusted odd ratio	p- value
Malaysia	845	12,521,749	52.1 (47.86 – 56.28)		
Sex					
Male	292	5,894,751	46.1 (39.67 – 52.70)	-	-
Female	553	6,626,999	58.9 (52.51 – 64.93)	1.63 (1.08 – 2.46)	**.021**
Age					
18-29	77	2,852,868	40.2 (31.09 – 49.99)	-	-
30-39	135	2,966,961	51.8 (41.23 – 62.31)	1.60 (0.96 – 2.66)	.068
40-49	168	2,024,220	54.1 (46.45 – 61.50)	1.35 (0.80 – 2.26)	.259
50-59	218	2,564,264	67.5 (59.15 – 74.95)	2.11 (1.10 – 4.06)	**.026**
60 and above	247	2,113,436	57.5 (50.71 – 63.96)	1.00 (0.45 – 2.24)	.998
Diabetes Mellitus (DM) Status					
No	645	10,423,090	49.5 (45.05 – 53.90)	-	-
Yes	172	1,803,026	72.3 (58.19 – 83.10)	1.17 (0.59 – 2.34)	.645
Hypertension (HPT) Status					
No	482	8,755,016	47.2 (42.55 – 51.99)	-	-
Yes	341	3,539,201	71.3 (62.99 – 78.31)	2.10 (1.20 – 3. 68)	**.010**
Hypercholesterolemia (HPL) Status					
No	522	8,986,774	47.0 (42.10 – 52.04)	-	-
Yes	289	3,203,380	73.2 (66.66 – 78.84)	1.94 (1.24 – 3.03)	**.004**



exhibiting abdominal obesity







The twofold danger:
Hypertension and hypercholesterolemia both doubled the likelihood of having abdominal obesity

5. Discussion & Conclusion

- The prevalence of abdominal obesity among adults in Malaysia was 52.1% (95% CI: 47.86, 56.28), remains stagnant as compared to NHMS 2023, 54.5% (95% CI: 52.50,56.39) (2).
- Being female and age between 50 to 59 years old has been shown to increase the likelihood of being abdominally obese compared to being male and younger age groups (3).
- Health-related factors, particularly hypertension and hypercholesterolemia appeared to have a positive association with abdominal obesity as evidenced by AOR = 2.10 and AOR = 1.94 respectively.
- These findings suggest that gender and advancing age are critical determinants of central fat accumulation, necessitating targeted public health interventions for middle-aged women.
- These groups need specific support to improve their lifestyle behaviours and metabolic health during this critical transition period.

6. Acknowledgement

We would like to thank the Director General of Health Malaysia for his permission to present these findings.

7. References

1. World Health Organization Western Pacific Region, International Association for the Study of Obesity, & International Obesity Task Force. (2000). The Asia-Pacific perspective: Redefining obesity and its treatment. Health Communications Australia.
2. Institute for Public Health. (2023). National Health and Morbidity Survey (NHMS) 2023: Non-communicable diseases, their risk factors and healthcare demand. Ministry of Health Malaysia. https://iku.nih.gov.my/images/nhms2023/report-nhms-2023.pdf
3. Ra, J. S. (2023). Factors associated with the combination of general and abdominal obesity in middle-aged and older Korean women: A cross-sectional study. Osong Public Health and Research Perspectives, 14(5), 379–387. https://doi.org/10.24171/j.phrp.2023.0089