

ID - 359

**EXAMINING THE
SOCIO DEMOGRAPHIC TREND
OF A MULTIETHNIC POPULATION
WITH OBESITY:
WHAT CAN WE IMPROVE?**



**NAPOLI
2023**

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CONFLICT OF INTEREST DISCLOSURE

In accordance with « EACCME criteria for the Accreditation of Live Educational Events », I have no potential conflict of interest to report.

Overview

- **Background**
- **Research Question**
- **Problem Statement**
- **Objectives**
- **Methodology**
- **Results**
- **Discussion**
- **Conclusion**
- **References**

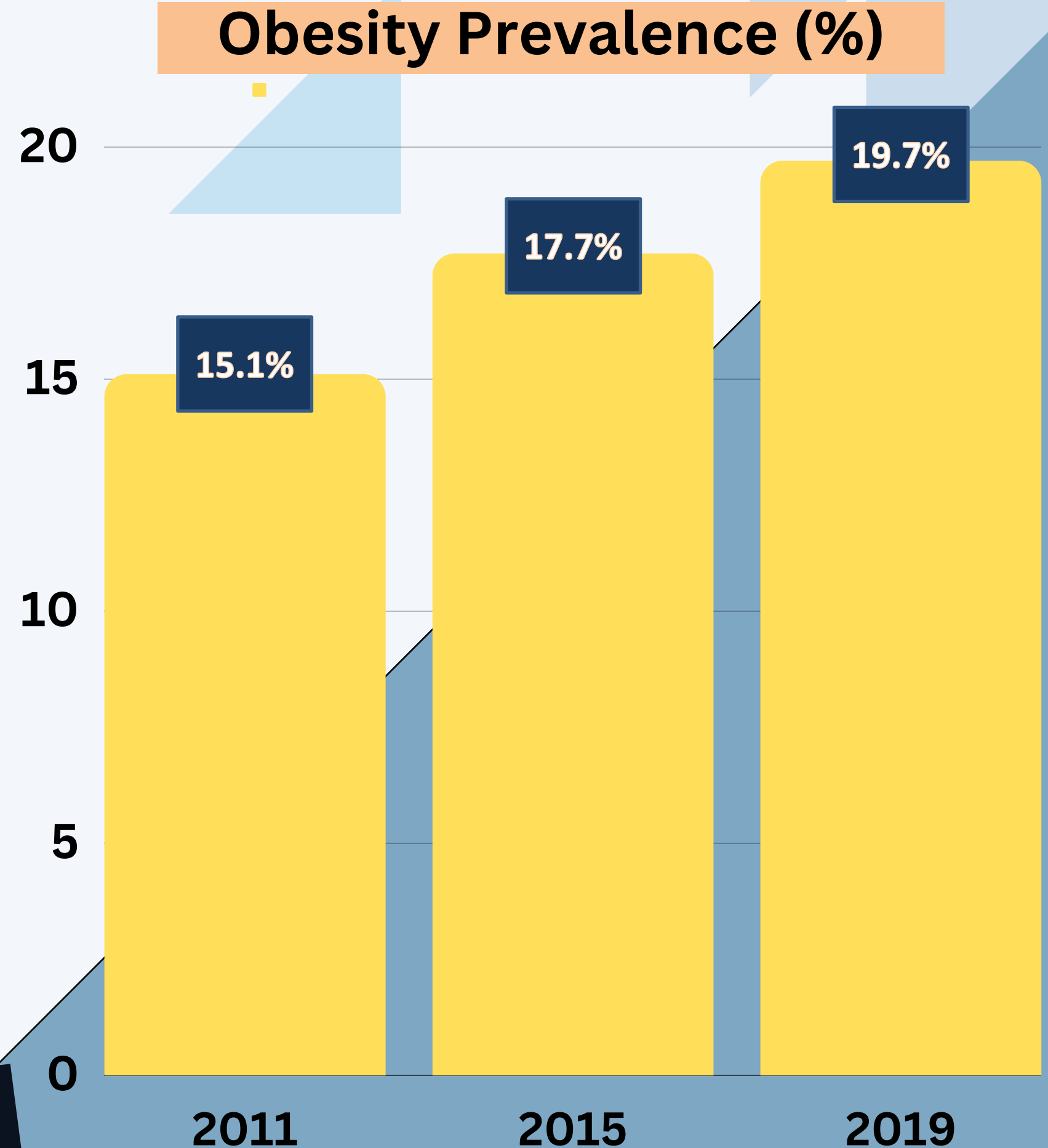
Background - Malaysia

- Multiethnic, multi-religion country
- Population: 31,949,777
- Consist of 13 states and 3 federal territories



Introduction

- Malaysia National Health and Morbidity Survey Report (NHMS) showed **increasing obesity prevalence**
 - 15.1% in 2011, 17.7% in 2015, up to 19.7% in 2019
- Malaysia has the **highest obesity prevalence among its immediate neighbors** in the World Health Organisation Western Pacific Region (WHO-WP)
- Obesity was responsible for **72.3 deaths per 100,000 people** in Malaysia in 2016



Problem Statement

Why is obesity more prevalent among certain socio demographic groups?



Research Question

Does obesity prevalence vary among populations with different socio demographic determinants?



Objectives

Objective 1

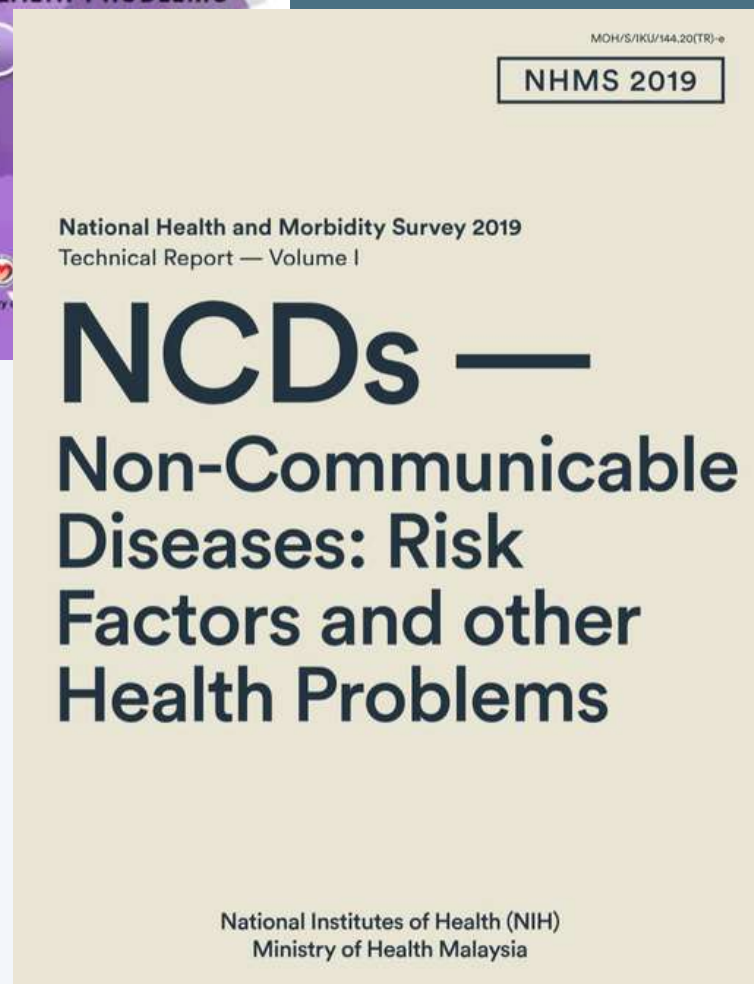
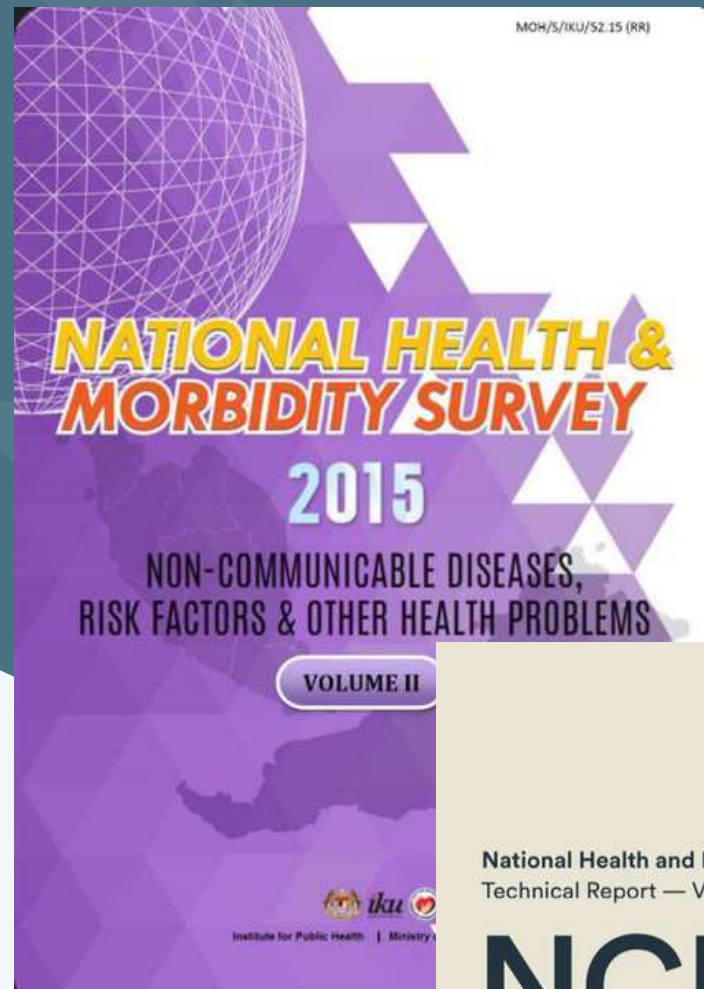
To review the prevalence of obesity among the Malaysian population in 2015 and 2019.

Objective 2

To examine the influence of socio demographic factors on the trend of obesity in a multiethnic country.



Methodology

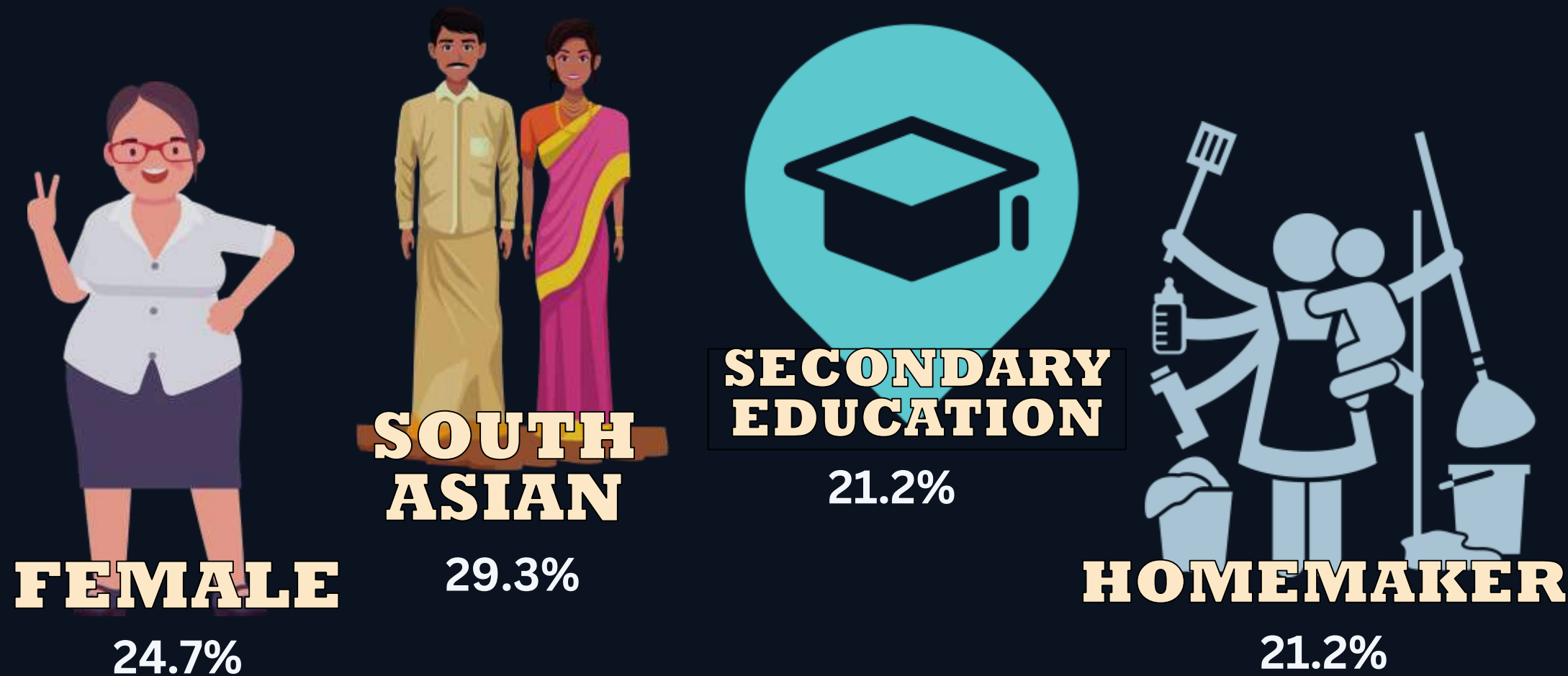


- Data derived from the Malaysia NHMS 2015 and 2019 reports
- Primary research team collected data using face-to-face interview or self-administered questionnaires.
- Sample size was allocated proportionately to all states in Malaysia
- Ethical clearance obtained
- Secondary analysis was done
- Top contributor for obesity were identified



Results

Socio demographic groups with persistently high obesity prevalence in 2015 and 2019:



Sociodemographic Factor	Prevalence of Obesity in 2015 (%)	Prevalence of Obesity in 2019 (%)
Gender		
Female	20.6	24.7
Male	15.0	15.3
Ethnic		
South Asian	27.1	29.3
South East Asian	20.7	22.3
Eastern Oriental	11.7	13
Education Level		
Secondary	19.1	21.2
Tertiary	17.3	19.4
Primary	16.8	17.5
No formal education	11.6	17.4
Occupation		
Unpaid worker/ Homemaker	23.7	26.5
Self-employed	17.0	21.1
Retiree	22.0	20.0
Government employee	22.7	20.8
Unemployed	Not available	17.4
Private employee	15.7	17.3

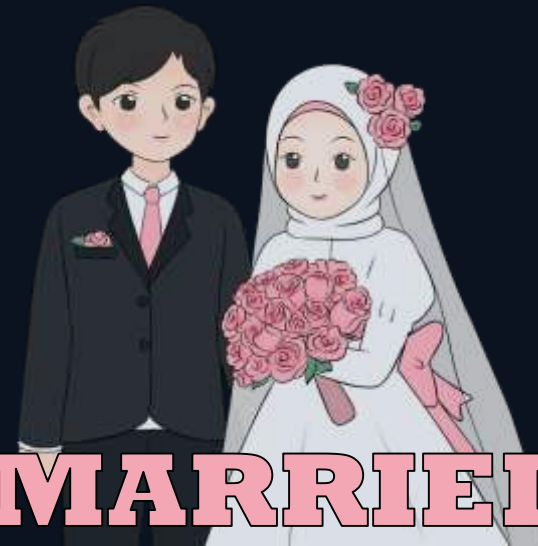
Results

In 2019, the population with higher obesity prevalence had transitioned to:



30'S

18.8% --> 23.8%



MARRIED

19% --> 21.2%



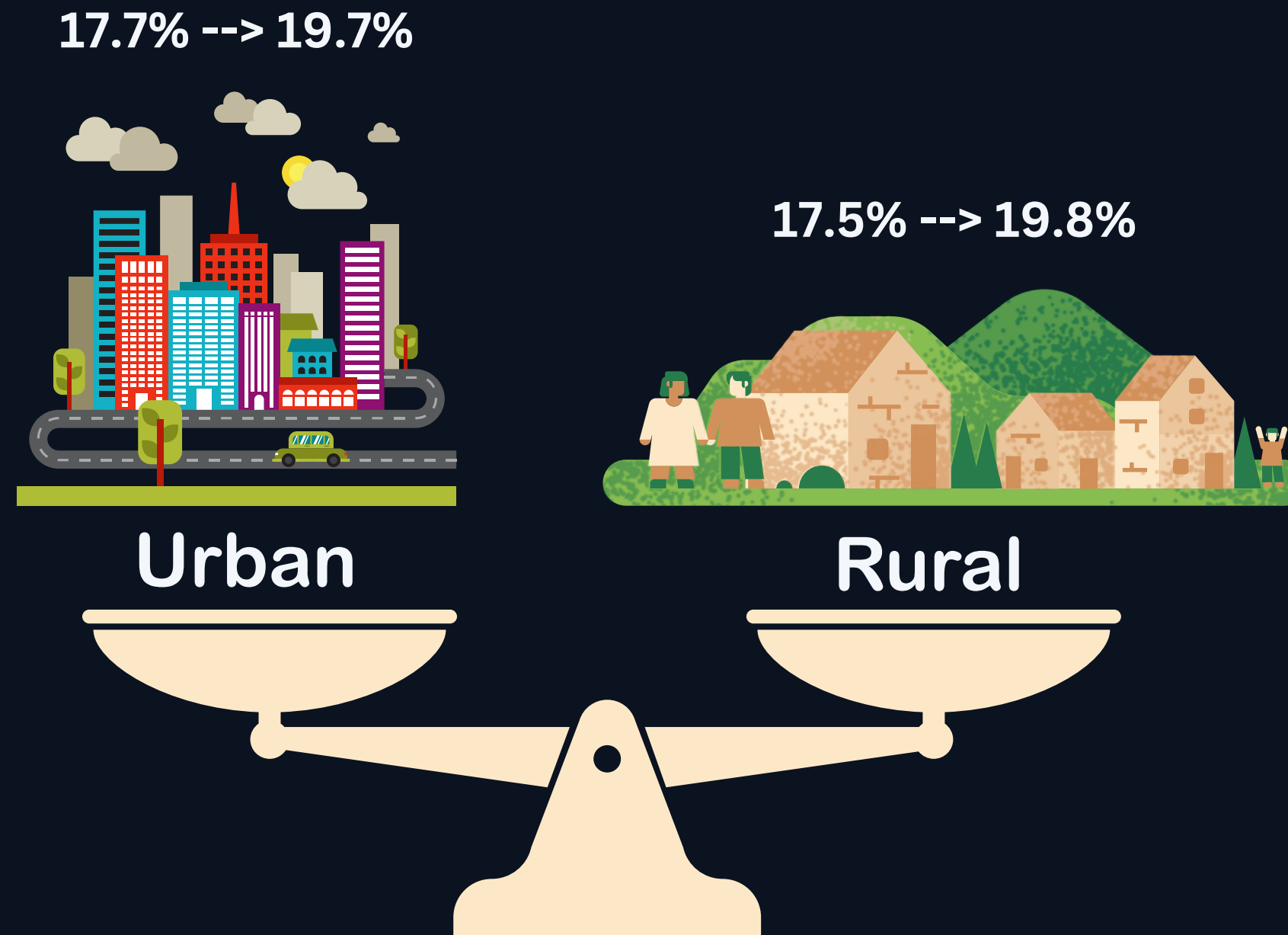
M40

17.7 --> 21.5%

Sociodemographic Factor	Prevalence of Obesity in 2015 (%)	Prevalence of Obesity in 2019 (%)
Age group		
30-39	18.8	23.8
50-59	21.5	22.0
40-49	20.1	21.7
60-69	19.2	19.5
20-29	15.3	15.4
70 and above	9.9	10.1
Marital Status		
Married	19.0	21.2
Divorced/ Widowed	20.2	21.1
Single	14.1	16.3
Household income category		
Middle 40%	17.7	21.5
Bottom 40%	16.4	19.9
Top 20%	18.8	14.6

Results

No significant differences found between urban and rural communities in 2015 and 2019.



Discussion



Canter and Caballero, 2012

Females in developing countries were at a higher risk of obesity due to **preference for sugar-laden foods, physical inactivity**, and even **cultural beliefs** that women with larger body size are associated with fertility as well as prosperity.

Discussion



Mohd-Sidek et al., 2021

Hormonal influences during pregnancy and childbirth also contributed to females developing obesity. Individuals who **fail to cope with stress** are more susceptible to developing obesity.

Discussion



Tan et al., 2011

South Asians in Malaysia culturally tend to have a lifestyle that predisposes them to obesity, such as **dietary habits that are rich in fat, low in fiber, with a preference to sedentary leisure activities** over vigorous ones.

Discussion



World Health Organization, 2021

People are more susceptible to developing obesity as **energy-rich, high-sugar, high-fat, micronutrient-poor foods are easily available at a lower cost.** Rapid urbanization, advancements in technology and modes of transportation leads to a **more sedentary lifestyle.**

Discussion



Liew et al., 2021

Married couples in China were reported to have a higher prevalence of obesity due to **less time for physical activity** post-marriage and adopting a **less weight-friendly diet** to save time and money.

Discussion



Tzotzas et al., 2010

In Greece, **married** people are more likely to **neglect weight control** and consume meals which are rich and energy-dense regularly, as single people strive to remain attractive for potential partners.

Discussion



Chung et al., 2011

In Korea, **homemakers** are prone to suffer from obesity, mainly due to **unhealthy dietary patterns** which are based on convenience such as instant and processed food, as well as having a **sedentary lifestyle**.

Strengths and Limitations



Strengths

- Sample size appropriate to represent Malaysia
- Data collected by trained investigators are valid, reliable
- No conflict of interest between authors

Limitations

- Data on risk factors for obesity not available
- Study design unable to determine causal relationship among variables

Conclusion

Our study highlights the need for **targeted interventions** on groups susceptible to obesity in Malaysia, particularly **females, South Asians, married** individuals, those with **secondary education** only, **aged 30-39** years old, **homemakers** and **middle-income** groups.



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Thank You
For Your Attention

