

INTRODUCTION

Obesity is now widely considered a pandemic due to its increasing prevalence in developed and developing countries. This issue is of concern to health professionals as obesity is a recognised risk factor for a number of chronic conditions including diabetes, coronary heart disease, stroke, arthritis and some forms of cancer.

A commonly used measure of obesity is body mass index (BMI), a score which is calculated using a person's weight in kilograms divided by the square of their height in metres (kg/m²). This score is independent of age or sex. The World Health Organization has adopted the following cut-off points for adults, based on associations between BMI, chronic disease and mortality:

Classification	BMI	Risk of co-morbidities
Underweight	<18.5	Low*
Normal range	18.5 - 24.9	Average
Pre-Obese (Over-wt)	25.0 - 29.9	Increased
Obese Class I	30.0 - 34.9	Moderate
Obese Class II	35.0 - 39.9	Severe
Obese Class III	40.0+	Very severe

*But increased risk of other clinical problems

People with severe obesity are more likely to develop high blood pressure, respiratory dysfunction, infertility, gout, gall bladder disease and urinary incontinence. It is also a risk factor for premature death, particularly from heart attack. From a quality of life perspective, severely obese people often have lowered self-esteem and may be less active because of difficulties with transport and public venue seating. They may experience difficulty finding and maintaining employment and may be socially ostracised, leading to poorer mental health.

METHODS

The information presented here is from biomedical measurements collected in the North West Adelaide Health Study (NWAHS), a longitudinal cohort study based on a representative sample of people aged 18 years and over, living in the western and northern regions of Adelaide. The study had an overall participation rate of 71%. Study participants (n=4058) had their height and weight measured in the clinic, using standard instruments and procedures, providing an accurate indication of their BMI. The data were weighted to be representative of the South Australian population.

RESULTS

Figure 1 shows the prevalence of the six categories of BMI among participants of the NWAHS. Ten percent of participants were severely obese (Obese Classes II and III) with a subsequent increased risk of co-morbidities.

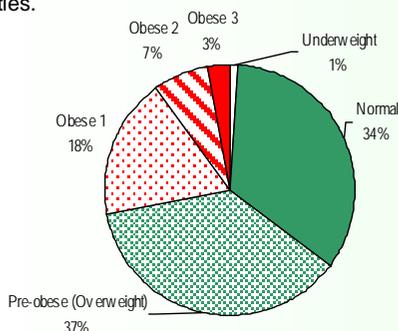
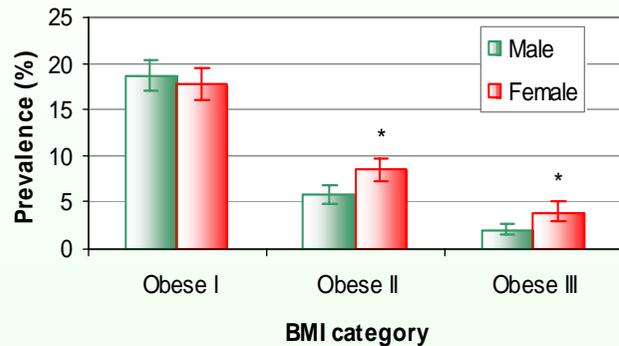


Figure 1: Prevalence of BMI (NWAHS Study)

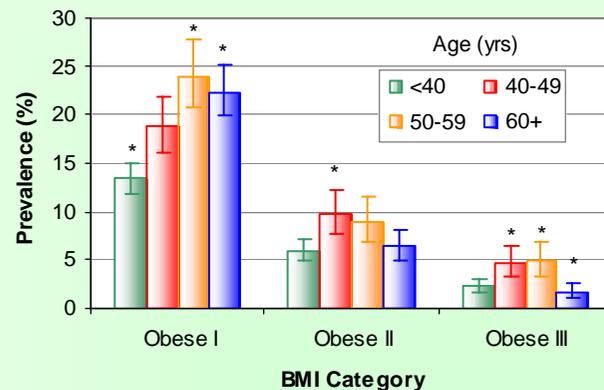
Figure 2 shows the prevalence of obese BMI categories by sex. Females were statistically significantly more likely to be severely obese (BMI 35+) than males.



* statistically significantly higher than comparison group ($p < 0.05$)

Figure 2: Obese BMI by sex

Figure 3 shows the prevalence of each BMI obese category for NWAHS participants by age group. The graph shows that the prevalence of Obese Class I was statistically significantly higher among those aged 50 years and over and statistically significantly lower among those aged less than 40 years of age. The prevalence of Obese Class II was statistically significantly higher among those aged 40 to 49 years of age. People in Obese Class III were statistically significantly more likely to be aged 40 to 59 years of age and statistically significantly less likely to be aged 60 years and over.



* statistically significantly higher than overall prevalence ($p < 0.05$)

Figure 3: Obese BMI by age group

CONCLUSIONS

- More than 1 in 3 people were overweight, and 1 in 5 people were obese.
- Women were more likely than men to be severely obese.
- People aged 40 years and over should be targeted for future health promotion interventions aimed at halting or slowing their progression along the obesity continuum and reduce their risk of co-morbidities.
- Strategies are needed to assist severely obese people, particularly those aged between 40 and 59 years, who may already be suffering from reduced physical and mental health.