Prevalence of Overweight and Obesity in Australian Secondary Students

(Updated March 2011)

Background:

The National Secondary Students' Diet and Activity (NaSSDA) survey 2009-10 is jointly funded by the state Cancer Councils, Cancer Council Australia and the National Heart Foundation of Australia. The study fills a significant gap in existing data in Australia by establishing an ongoing commitment to the standardised monitoring of adolescents' body weight, and dietary and physical activity behaviour at both a state and national level.

Methods:

A nationally representative sample of 12,188 secondary school students from year levels 8 to 11, from 237 schools was surveyed. Data on students' dietary, physical activity and sedentary behaviour were collected via a web-based questionnaire, and anthropometric measurements of students' height, weight and waist circumference were taken by trained researchers in a confidential setting. Active parental consent was required for students to participate in each component of the study. An audit of the school food and activity environment was also conducted.

This research memo reports on the prevalence of overweight and obesity among Australian secondary school students. Measures of height and weight were used to compute Body Mass Index (BMI), which was classified into weight categories according to international standard cut-offs developed for children and adolescents.[1, 2]

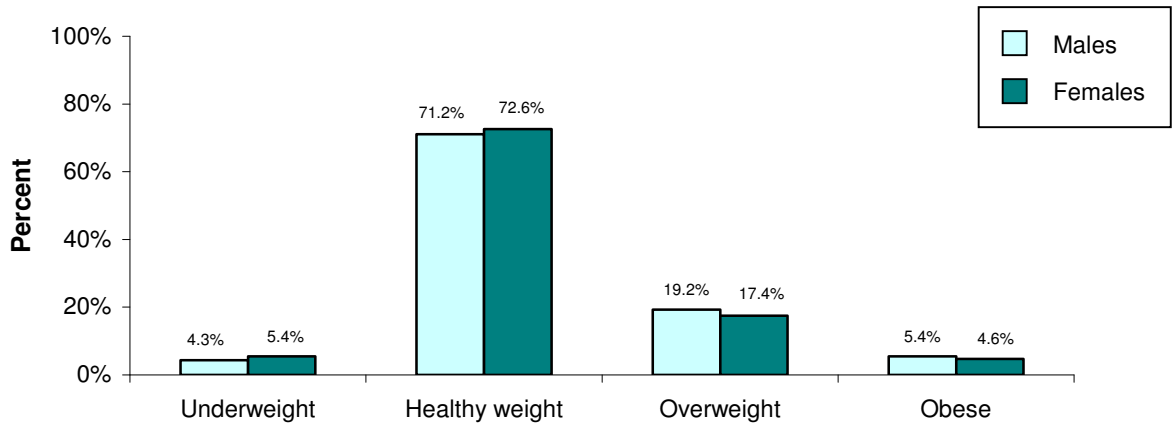
Data were weighted by state, year level, sex and education sector to the population of students enrolled in Australia and the reported prevalence estimates are based on these weighted data.[3] Analyses adjusted for school level clustering using Stata SE 11.1. Logistic regression analysis was used to test for significant differences ($p<0.01$) in overweight/obesity prevalence by sex, socio-economic status (SES) and home location.

Overweight and obesity prevalence:

Overall, 72% of all students were classified as a healthy weight (71.8%; 95% CI: 70.4% - 73.2%). Just under one in four students were categorised as overweight (18.4%; 95% CI: 17.3% - 19.5%) or obese (5.0%; 95% CI: 4.3% - 5.8%). Five percent of all students were underweight (4.8%; 95% CI: 4.2% - 5.5%).

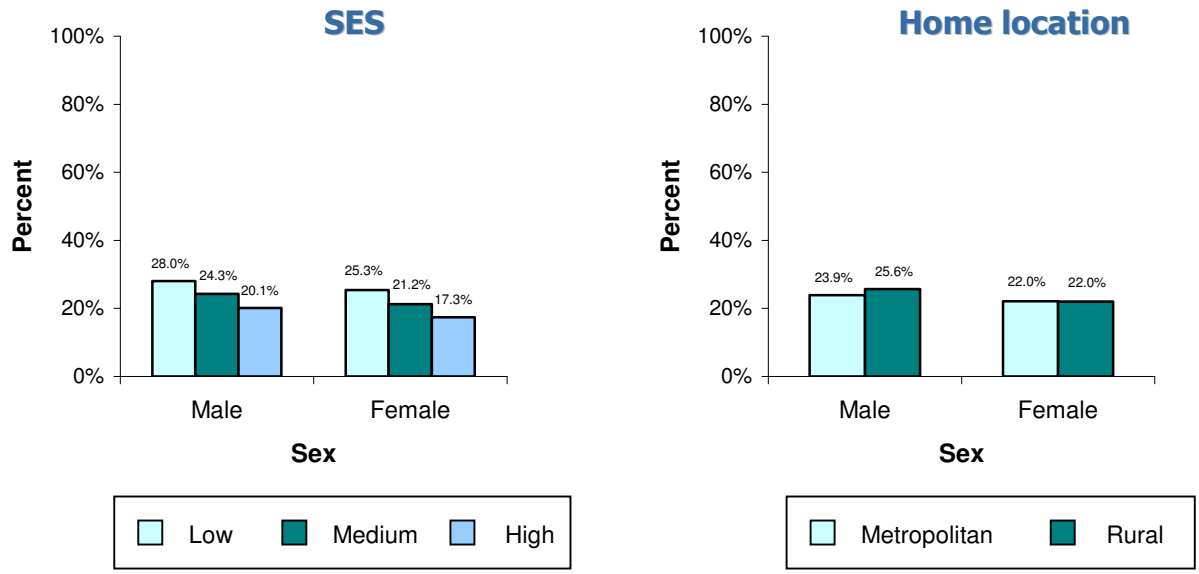
Figure 1 shows that the proportions of male and female students in each of the four weight categories were similar. Nineteen percent of males were categorised as overweight while a further 5% were obese. Among females, 17% were overweight and 5% were obese. Five percent of female students were classified as underweight compared to 4% of male students.

Figure 1: BMI classification by sex



As highlighted in Figure 2, there was evidence of a strong SES gradient, with the prevalence of overweight and obesity significantly higher among students from low SES areas (27%) compared to those from medium SES areas (23%) and high SES areas (19%). The prevalence of overweight and obesity was similar for students from metropolitan and rural localities.

Figure 2: Prevalence of overweight and obesity combined among males and females by SES and home location



Summary:

This survey shows that nationally just under one in four students in years 8 to 11 are overweight or obese, with no significant difference by sex. Overweight/obesity prevalence increased with declining SES, suggesting low socio-economic background is a risk factor for overweight in young people.

The proportion of Australian adolescents who are overweight or obese is of concern given that obesity in adolescence predicts obesity in adulthood, and evidence suggests that it is a stronger predictor at this stage than is childhood obesity.[4] While much of the available data has focused on younger children, adolescence presents a crucial opportunity to prevent weight gain in young adulthood.[5] There is also some evidence that overweight in adolescence is a stronger predictor of disease risk (i.e., cardiovascular disease) in adulthood than is overweight in adulthood.[6] This highlights the importance of intervention to reduce overweight and obesity during adolescence.

References:

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