1: Health Soc Care Community. 2008 May;16(3):282-90. Epub 2008 Mar 5.

Gender, ethnicity, culture and social class influences on childhood obesity among Australian schoolchildren: implications for treatment, prevention and community education.

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The aim of the study was to explore the associations between obesity, weight perceptions and gender, ethnicity, culture and social class in a large national study of Australian school children. Primary and high schools (N = 47) were recruited from every state and territory of Australia and included 7889 children from government, private and Catholic schools (82% response rate) in August-November, 2006. The socioeconomic status (SES) of schools was based on a government survey of total family income. A questionnaire completed by students, measured demographic details of gender, age, weight perceptions and ethnic/cultural background. Height and weight were measured by trained research assistants. Outcome measures included body mass index (BMI), prevalence of obesity, overweight, weight perceptions. Prevalence of obesity was 6.4% of males and 5.6% of females in primary school students (P = 0.34). More high school males were obese than females (7.7% vs. 5.7%, P = 0.001). Obesity was more prevalent among students from Pacific Islander backgrounds. Adolescents who were most likely to be obese were boys and girls of low SES or Pacific Islander or Middle Eastern/Arabic background. The least likely to be obese were Anglo/Caucasian or Asian students and in particular, the girls. Obese female adolescents from Aboriginal, Middle Eastern/Arabic and Pacific Islander backgrounds were less likely than their Caucasian or Asian peers to perceive themselves as 'too fat'.Those working in clinical, community or educational settings with young people and in particular, obese young people, should be aware that obesity is likely to be more prevalent, more culturally acceptable and perhaps more

desirable among children and teens from low SES communities and/or Middle Eastern and Pacific Islander backgrounds. Health and social work professionals should be careful not to exaggerate the risks of overweight or obesity or inadvertently create weight concerns among young people. The different body image perceptions identified in this study should be taken into account when planning clinical, community or preventive initiatives among children or adolescents from varying ethnic groups.

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Associations between family circumstance and weight status of Australian children.

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OBJECTIVE: To examine associations between weight status and multiple indicators of family circumstance in Australian elementary school children. METHODS: Data were combined from the 2001 Children's Leisure Activities Study (CLAS Study) and 2002/3 Health, Eating and Play Study (HEAP Study), involving 2520 children in Grades Prep (mean age 6 years) and 5-6 (mean age 11 years) in Melbourne, Australia. Children's body mass index (BMI) was calculated from measured height and weight. Weight status (non-overweight or overweight) was determined according to International Obesity Taskforce cut-off points and BMI was transformed to z-scores based on the 2000 US growth chart data. Parents reported family circumstance (number of parents in the home, marital status, presence of siblings, parental education, parental employment status, parental work hours [HEAP Study only]) and parental BMI. Regression analyses were conducted for the sample overall and separately for young girls, young boys, older girls and older boys. RESULTS: Children in single-parent homes, those without siblings, and those

with less educated mothers and fathers tended to have higher z-BMIs (p=0.002,
p=0.003, p<0.001 and p<0.001, respectively) and were more likely to be overweight
(p=0.003, p<0.001, p<0.001 and p=0.02, respectively). Associations were stronger
for older children. Parental employment and work hours were not consistently
associated with child weight status. The multivariable models did not demonstrate
a cumulative explanatory effect (R(2)=0.02), except when maternal BMI was
included (R(2)=0.07). CONCLUSIONS: Individual measures of family circumstance
were differentially associated with child weight status and appeared to be
largely independent of other measures of family circumstance. Childhood
overweight interventions may need to be tailored based on the age, gender,
maternal BMI and family circumstances of the target group.

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1: Int J Obes (Lond). 2007 Jul;31(7):1044-51. Epub 2006 Dec 5.

Overweight, obesity and girth of Australian preschoolers: prevalence and
socio-economic correlates.

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OBJECTIVE: (1) To determine the prevalence of overweight and obesity in
Australian 4-5-year-old children. (2) To investigate associations between
socio-economic characteristics and (a) overweight/obesity and (b) waist
circumference. DESIGN: Cross-sectional population survey. SETTING: Wave 1 (2004)
of the Longitudinal Study of Australian Children. PARTICIPANTS: Nationally
representative sample of 4983 4-5-year-old children (2537 boys and 2446 girls;
mean age 56.9 months (s.d. 2.64 months; range 51-67 months)). MAIN OUTCOME
MEASURES: Prevalence of overweight and obesity (International Obesity TaskForce
definitions) and waist circumference (cm). ANALYSIS: Prevalence estimates were
obtained as weighted percentages. Uni- and multivariable ordinal logistic
regression (using the proportional odds model) were used to assess associations

between potential predictors and the risk of higher child body mass index status
and a multivariable linear regression model to assess relationships between the
same potential predictors and waist circumference. RESULTS: 15.2% of Australian
preschoolers are estimated to be overweight and 5.5% obese. In univariate
analyses, seven of the 12 variables were associated with higher odds of being in
a heavier body mass index category. In a multivariable regression model, speaking
a language other than English (particularly for boys), indigenous status and
lower disadvantage quintile were the clearest independent predictors of higher
body mass index status, with children in the lowest quintile of social
disadvantage having 47% higher odds (95% CI 14, 92%) of being in a heavier body
mass index category compared to those in the highest quintile. Waist
circumference was not related to any socio-economic variable. CONCLUSIONS: This
nationally representative survey confirms high rates of overweight and obesity in
preschoolers throughout Australia. The recent emergence of a substantial
socio-economic gradient should bring new urgency to public health measures to
combat the obesity epidemic.

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Socioeconomic status and weight change in adults: a review.

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In developed countries, obesity is inversely associated with socioeconomic status
(SES) among women, and less consistently among men; whereas, in developing
countries, the association is direct. However, the relationship of SES to weight
change over time is unknown. This relationship was the focus of the present
literature review. It was hypothesized that, compared with persons of higher SES,
persons of low SES would show greater weight gain or risk of weight gain over

time. A search of electronic databases identified 34 relevant articles from
developed countries reporting on studies that assessed the relationship of
various measures of SES with weight change over time in adults (there were too
few papers from developing countries (n = 1) to include). Results of the
methodologically strongest studies (those which obtained objectively measured
adiposity data and used a follow-up period of 4 years or more) showed that, among
non-black samples, there were relatively consistent inverse associations between
occupation and weight gain for men and women. When SES was assessed using
education, evidence was slightly less consistent, but still provided some support
for the hypothesized relationship. However, when income was used as the indicator
of SES, findings were inconsistent, although there were fewer studies available.
There was little support for a relationship between SES and weight gain for black
samples. In the context of the worldwide epidemic of obesity, these findings
suggest that in developed countries, weight gain prevention efforts might best be
focused on those who are most socioeconomically disadvantaged, particularly those
in lower status occupations.

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