



© Kamla-Raj 2007

Human Ecology Special Issue No. 15: 57-62 (2007)

Temporal Trends in the Prevalence and Extent of Overweight among 9-11 Year-Old Australians: 1985-2002

Jim Dollman¹ and Amanda Pilgrim²

1. Nutritional Physiology Research Centre, University of South Australia, GPO Box 2471 Adelaide 5001, AUSTRALIA

2. School of Health Sciences, University of South Australia, GPO Box 2471 Adelaide 5001, AUSTRALIA

Address for correspondence: Dr. Jim Dollman Ph. D, School of Health Sciences, University of South Australia, GPO Box 2471 Adelaide 5001, AUSTRALIA

Telephone: +61 8 8302 1413, Fax: +61 8 8302 6558, E-mail: james.dollman@unisa.edu.au

KEYWORDS Trends. Overweight. Children. Distribution

ABSTRACT The aim of this study was to identify trends in the prevalence of overweight (POW) and extent of overweight (EOW) in primary age Australians between 1985 and 2002. Anthropometric measures (body mass index, BMI; 5 skinfolds, sum5; and waist girth) were compared for 9-11 year olds from 1985 (n=1800; 885 boys) and 2002 (n=1024; 527 boys). The POW was assessed using age- and sex-specific international cut-offs for BMI, and the 85th percentile from the 1985 survey for sum5 and waist girth. The EOW was defined as the extent to which overweight children exceeded the defined cut-off for that variable, expressed as a percentage. Between 1985 and 2002, the POW had increased in boys and girls (all $p < 0.0001$), as represented by each anthropometric variable: POW/BMI from 12.8-22.6% for boys and 16.0-28.8% for girls; POW/sum5 from 15.1-35.3% for boys and 14.7-28.4% for girls; and POW/waist from 14.9-35.6% for boys and 15.1-34.5% for girls. The EOW had increased for all anthropometric variables, but the differences between surveys for EOW/sum5 were not significant: EOW/BMI from 7.1-11.0% for boys ($p \leq 0.05$) and 6.0-11.1% for girls ($p \leq 0.01$); EOW/sum5 from 35.3-49.8% for boys and 26.6-36.4% for girls; and EOW/waist from 5.1-10.5% for boys ($p \leq 0.01$) and 6.7-9.0% for girls ($p \leq 0.05$). Unfavourable adiposity levels and fat patterning became more prevalent and severe in Australian children between 1985-2002, suggesting that widely reported prevalence trends based on BMI are under-estimating the likely impact of this public health crisis.