### Short Communication

## Socio-economic disparities in Australian adolescents' eating behaviours

# Philippa Niven<sup>1</sup>, Maree Scully<sup>1</sup>, Belinda Morley<sup>1,\*</sup>, David Crawford<sup>2</sup>, Louise A Baur<sup>3</sup> and Melanie Wakefield<sup>1</sup> for the NaSSDA Study Team<sup>†</sup>

<sup>1</sup>Centre for Behavioural Research in Cancer, Cancer Council Victoria, 1 Rathdowne Street, Carlton, Victoria 3053, Australia: <sup>2</sup>Centre for Physical Activity and Nutrition Research, Deakin University, Burwood, Victoria, Australia: <sup>3</sup>Discipline of Paediatrics & Child Health, The University of Sydney, Sydney, New South Wales, Australia

#### Submitted 8 January 2013: Final revision received 2 September 2013: Accepted 4 September 2013: First published online 23 October 2013

### Abstract

*Objective:* To assess the association between socio-economic position (SEP) and poor eating behaviours in a large representative sample of Australian secondary-school students.

*Design:* Cross-sectional survey of students' vegetable, fruit, sugar-sweetened beverage and fast-food consumption assessed using validated instruments and collected via a web-based self-report format.

Setting: Secondary schools across all Australian states and territories.

*Subjects:* Secondary-school students (n 12188; response rate: 54%) aged 12–17 years participating in the 2009–10 National Secondary Students' Diet and Activity (NaSSDA) survey.

*Results:* Overall, 25% of students reported consuming  $\leq 1$  serving of vegetables/d and 29% reported eating  $\leq 1$  serving of fruit/d. Fourteen per cent of students reported drinking at least 1-2 cups of sugar-sweetened beverages/d while 9% reported eating fast food  $\geq$ 3 times/week. After adjusting for other demographic factors, students of lower-SEP areas were more likely to report low intake of vegetables (F(4, 231) = 3.61, P = 0.007) and high frequency of consumption of sugar-sweetened beverages (F(4, 231) = 8.41, P < 0.001) and fast food (F(4, 231) = 4.59, P = 0.001) compared with students of high-SEP neighbourhoods. A positive SEP association was found for fruit consumption among female students only  $(F(4, 231) = 4 \cdot 20, P = 0 \cdot 003)$ . Those from lower-SEP areas were also more likely to engage in multiple poor eating behaviours (F(4, 231) = 5.80, P < 0.001). Conclusions: Results suggest that socio-economic disparities in Australian adolescents' eating behaviours do exist, with students residing in lower-SEP neighbourhoods faring less well than those from high-SEP neighbourhoods. Reducing social inequalities in eating behaviours among young people should be a key consideration of future preventive strategies.

Keywords Socio-economic position Diet Adolescents Australia

Socio-economic position (SEP) is inversely associated with obesity in adolescents<sup>(1)</sup> and with poorer adolescent diets. International research and review articles have generally found that low SEP is associated with lower consumption of fruit and vegetables among adolescents<sup>(2–8)</sup>. However, Australian data are less definitive. A national

survey of 654 adolescents found a significant positive association between SEP and fruit consumption (both sexes) and vegetables (girls only)<sup>(9)</sup>, a community-based study of 2529 Victorian adolescents found a positive association between SEP and adolescent fruit consumption<sup>(10)</sup>, while a cross-sectional survey of more than 18 000 Australian secondary students found no significant association between SEP and adolescent fruit and vegetable consumption<sup>(11)</sup>.

There has been considerably less research conducted assessing the association between SEP and adolescent

<sup>&</sup>lt;sup>†</sup> The NaSSDA Study Team comprises Cancer Council Victoria: Belinda Morley, Maree Scully, Melanie Wakefield; Technical Advisory Group: Louise Baur (Chair), Anthony Okely, Iain S. Pratt, Jane Bowen, Jo Salmon, Victoria Flood, David Crawford, Anthony Worsley.