Is obesity increasing in South Australia?

FINDINGS IN BRIEF
• The proportion of obese people in the SA population, as assessed by self-report data, has significantly increased over the past decade.
• Using self-report data, 17.5% of the SA adult population (aged 15 years and over) are obese and a further 33.0% are overweight.
• If this current rate of increase is maintained a quarter of the SA population will be obese by 2011.

The aim of this brief report is to describe the prevalence of obesity in the South Australian population, aged 15 years and over, and to examine projections of the number of people expected to be obese in the future, based on the increasing prevalence rate.

METHODS
Data were obtained from South Australian Health Omnibus Surveys (HOS) conducted annually from 1991 to 1998, and 2001. Note that Body Mass Index (BMI) data were not collected in 1999 or 2000. Self-reported height (m) and weight (kg) were obtained in these household interview studies of people aged 15 years and over (approximately n=3000 each year). Body Mass Index (BMI kg/m²) was calculated to classify people into underweight, acceptable weight, overweight, obese, and severely obese.

Data analysis
The future trend in the obesity prevalence rate was forecasted using existing estimates from the nine HOS. These estimates were age and sex standardised to the 1996 Census to adjust for changes in the age-sex structure of the population. Significant changes in the prevalence of obesity over time were examined using the χ² for trend test.

RESULTS
The age-sex standardised prevalence of obesity (BMI ≥ 30) in South Australia has increased from 10.3% in 1991 to 17.5% in 2001 (χ² trend=122.8 p<0.001, see Figure 1), an increase of 7.2%. This means that approximately 212,500 South Australians aged 15 years and over were obese in 2001. If this current trend continues, the overall prevalence of obesity will increase further to 25.2% in 2011 (Figure 1).

Table 1 shows the prevalence of each BMI category in 1991 and 2001. The proportion of people who were overweight, obese, or severely obese increased significantly (p<0.05) between 1991 and 2001.

Table 1: Prevalence of BMI categories in 1991 and 2001

<table>
<thead>
<tr>
<th>BMI category</th>
<th>1991</th>
<th>2001</th>
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<tbody>
<tr>
<td></td>
<td>% (95% CI)</td>
<td>% (95% CI)</td>
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<tr>
<td>Underweight (&lt;18.5)</td>
<td>4.2 (3.5 - 5.0)</td>
<td>3.0 (2.4 - 3.8)</td>
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<tr>
<td>Normal (18.5-24.9)</td>
<td>57.9 (56.1 - 59.7)</td>
<td>46.2 (44.3 - 48.2)</td>
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<tr>
<td>Overweight (25.0-29.9)</td>
<td>27.6 (26.0 - 29.3)</td>
<td>33.0 (31.2 - 34.9)</td>
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<tr>
<td>Obese (30.0-34.9)</td>
<td>8.1 (7.1 - 9.1)</td>
<td>12.1 (10.8 - 13.4)</td>
</tr>
<tr>
<td>Severely obese (≥35.0)</td>
<td>2.2 (1.7 - 2.9)</td>
<td>5.7 (4.9 - 6.7)</td>
</tr>
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</table>

The prevalence of obesity (BMI ≥ 30) by age group for males and females is shown in Figure 2 and Figure 3. The prevalence of obesity has significantly increased (p<0.05) over the past decade for both males and females in all age groups except 15 to 29 year old males and females aged 70 years or over.
CONCLUSIONS

The prevalence of obesity in South Australia has significantly increased over the last ten years. This trend has occurred among both males and females in all age groups, except young males and elderly females.

The increasing prevalence of overweight and obesity in the South Australian population is comparable with trends across Australia\(^2\), and in the USA\(^3\), as well as across all the established market economy countries\(^4\). South Australian data also indicates that the prevalence of obesity is even higher when clinical BMI measurements are undertaken.

It is projected that if current trends continue, there will be a substantial increase in the number of South Australians with obesity over the next decade. Given that obesity is significantly associated with diabetes, high blood pressure, high cholesterol, asthma, arthritis and poor health status\(^5\) this increasing trend in obesity will have significant associated financial, personal, health, and quality of life cost implications.

References
