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Title: Public attitudes to government intervention to regulate food advertising, especially to children.

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Running Head: The marketing of food to children

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Abstract

The World Health Organization has called on governments to implement recommendations on the marketing of foods and beverages to children. This study describes high public support for government intervention in marketing of unhealthy food to children and suggests more effort is needed to harness public opinion to influence policy development.
Introduction

Childhood obesity is a key public health concern with children who are overweight or obese being more likely to maintain their overweight or obese status and develop cardiometabolic morbidities as adults.\(^1\) In Australia, rates of overweight and obesity in children (2014-15) aged 5 to 17 years were 27.4%, increasing from 21% in 1995.\(^2\)

There is increasing evidence that food marketing generates positive beliefs about the foods advertised. This influences children’s nutrition knowledge, food and beverage preferences, purchase requests and behaviours, and food consumption.\(^3\)

The World Health Organization has called on governments to implement its recommendations on the marketing of foods and non-alcoholic beverages to children.\(^4\) There has been opposition from the food and beverage industry to government intervention and despite the evidence that banning television advertisements of unhealthy food during children’s peak viewing times has been shown to be one of the most cost-effective population-based obesity-prevention interventions available,\(^5\) government has been reluctant to act. In Australia, the National Preventative Health Taskforce recommended the Australian government phase out unhealthy food marketing on television before 9pm by the end of 2013;\(^6\) however, this has not occurred.

Public support for regulating food and beverage advertising to children is likely to be a strong motivator for government action in this area. Using a representative sample of South Australian adults, this study aimed to explore public attitudes towards government regulation of the advertising of unhealthy foods to children and the mode of regulation.

Methods

Data were collected in July-August 2008 and June-July 2011 using the South Australian Health Monitor Survey. Households were randomly selected from the Electronic White Pages telephone
directory. The person within the household aged 18 years or over with the most recent birthday was selected to participate. The surveys were approved by the South Australian Department for Health and Ageing Human Research Ethics Committee in 2008 and 2011 and participants gave informed consent before participating.

Respondents were asked to report their agreement on a five point Likert scale ranging from strongly agree to strongly disagree. The same questions were asked in both years in the same manner by trained interviewers. Questions posed included the role of government in regulating advertising to children and respondents’ preferred mode of regulation (see Table 1).

Demographic variables including age, sex and whether or not there were children under the age of 18 years living in the household were collected.

Data were analysed using STATA 13.0 (STATA, Texas, USA). In order to represent the South Australian population, data were weighted by age, sex, area (metropolitan or rural) and probability of selection in the household using Census data.

Responses on the Likert scale were combined to create three categories: strongly agree/support and agree/support, neither agree/support or disagree/oppose, and strongly disagree/oppose and disagree/oppose. All variables were categorical, described using frequencies and proportions and compared using chi square tests.

**Results**

In 2008, 1910 interviews were completed (participation rate: 60.8%) and 2001 interviews in 2011 (participation rate: 57.3%). Consistent demographic data allowed data from both years to be pooled for analysis (N=3911). Mean age was 47.4 ± 18.3 years, 48.7% were men and 36.5% households had a child under 18 years.

All participants indicated strong agreement that governments should regulate the way food or drink is advertised and marketed to children (Table 1). Women were more likely than men to hold this view (p=0.039). Furthermore, 75.9% of respondents either agreed or strongly agreed that there was
too much advertising of unhealthy food during children’s television viewing time with differences found across age groups (p= 0.011) and between those with and without children under 18 years in the household (p<0.001) (Table 1).

When respondents were asked about their support for different methods of government regulation, a high proportion of respondents supported a ban on advertising of unhealthy foods at times when children watch television (86.4%). Women were more likely to support a total ban on advertising of unhealthy foods than men (p<0.001) and support for this statement increased with age (p<0.001). Households without children were more likely to support a ban on all food advertising when children are watching television (p<0.001) and support for this statement increased with age (p<0.001). A support for a total ban on all food advertising increased with increasing age (p<0.001) (Table 1).

**Discussion**

This study suggests strong support by South Australian adults for government intervention to restrict or ban television advertising of unhealthy food and non-alcoholic beverages. Consistent with other Australian studies\(^7\)\(^-\)\(^9\), over 86% of respondents strongly agreed or agreed with banning the advertising of unhealthy food during children’s television viewing time. When investigating public acceptability of various forms of regulation to support a healthy eating environment, Morley et.al (2012) found 83% of Australian adults were in favour of a ban on advertising unhealthy food at times when children watch television. Furthermore, 92% of respondents supported restrictions to food advertising on free to air television.\(^8\) Similarly, a Western Australian study reported 84% of respondents assessed government control or regulation of food advertising as either quite important (34%) or very important (50%).\(^9\)

Public opinion on this issue remains aligned with the views and interests of non-government groups who recommend banning unhealthy food advertising on television before 9pm\(^10\), as well as with past state and territory government views and federally commissioned advice\(^6\).
Whilst this data was collected several years ago, this study reiterates continued public support for government regulation of the television advertising of unhealthy food to children, especially during children’s peak viewing times. Decisive federal government leadership is needed to implement policy responses to proactively regulate and monitor the marketing of unhealthy foods to children. Concerted policy actions consistent with public support would progress efforts to implement international recommendations to reduce childhood obesity.
References


Table 1. The proportion of respondents who strongly agree/support or agree/support each of the following statements by demographic, N=3911

| Attitudes to food advertising to children and government role in regulation | Respondents preferences for modes of regulation |
|---|---|---|---|---|---|---|
| Government should regulate the way food or drink is advertised and marketed to children | There is too much advertising of unhealthy food during children’s television viewing time | A total ban on ALL food advertising | A ban on ALL food advertising at times when children watch television | A total ban on advertising of unhealthy foods | A ban on advertising of unhealthy foods at times when children watch television |
| % (95% CI) | % (95% CI) | % (95% CI) | % (95% CI) | % (95% CI) | % (95% CI) |
| Overall | 87.0 (85.5-88.3) | 75.9 (74.2-77.6) | 12.1 (10.9-13.4) | 36.2 (34.3-38.2) | 60.8 (58.8-62.8) | 86.4 (85.0-87.7) |
| Sex | 85.9 (83.5-88.1)* | 74.9 (72.0-77.6) | 11.7 (9.9-13.7) | 34.6 (31.6-37.7) | 56.8 (53.5-60.0)** | 84.9 (82.5-87.1) |
| Men | 88.0 (86.3-89.4) | 76.9 (74.7-79.0) | 12.6 (11.0-14.3) | 37.8 (35.4-40.2) | 64.7 (62.2-67.1) | 87.8 (86.2-89.3) |
| Women | 88.0 (86.3-89.4) | 76.9 (74.7-79.0) | 12.6 (11.0-14.3) | 37.8 (35.4-40.2) | 64.7 (62.2-67.1) | 87.8 (86.2-89.3) |
| Children under 18 years old in the household | 88.8 (86.4-90.8) | 78.2 (75.1-81.0)** | 11.6 (9.5-14.0) | 31.9 (28.5-35.4)** | 59.0 (55.4-62.5) | 86.8 (84.2-89.1) |
| Yes | 85.9 (84.1-87.6) | 74.6 (72.4-76.8) | 12.4 (11.1-14.0) | 38.8 (36.5-41.1) | 61.9 (59.4-64.3) | 86.2 (84.5-87.8) |
| No | 88.5 (86.2-90.5) | 71.4 (71.1-77.0)* | 9.7 (7.9-11.9)** | 31.0 (28.0-34.2)** | 47.9 (44.5-51.2)** | 86.9 (84.5-89.1) |
| Age | 87.2 (85.6-88.5) | 75.8 (74.0-77.5) | 10.9 (9.7-12.3) | 33.9 (32.0-35.9) | 61.4 (59.4-63.4) | 86.6 (85.2-88.0) |
| 18-30 | 84.8 (82.1-87.1) | 78.5 (75.4-81.2) | 18.4 (15.8-21.3) | 48.9 (45.4-52.4) | 73.3 (70.1-76.3) | 85.3 (82.7-87.7) |
| 31-65 | 88.5 (86.2-90.5) | 71.4 (71.1-77.0)* | 9.7 (7.9-11.9)** | 31.0 (28.0-34.2)** | 47.9 (44.5-51.2)** | 86.9 (84.5-89.1) |
| 65+ | 87.2 (85.6-88.5) | 75.8 (74.0-77.5) | 10.9 (9.7-12.3) | 33.9 (32.0-35.9) | 61.4 (59.4-63.4) | 86.6 (85.2-88.0) |

Note: CI – Confidence Interval * significant difference determined by chi square test at p<0.05, ** significant difference determined by chi square test at p<0.001