

A Review of

*“Advertising’s Role in Diet and Exercise in New Zealand and Australia:*

*Developing a Research Agenda”*

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## SUMMARY

- ◇ This review of the Harker Report, titled “*Advertising’s Role in Diet and Exercise in New Zealand and Australia: Developing a Research Agenda*”, has been written in my capacity as a public health researcher currently undertaking obesity research in New Zealand.
- ◇ The Harker Report claims to be ‘an extensive review in the areas of diet, exercise and advertising’, but based on the standards currently used by health researchers it does not meet that goal. In my opinion, it is most unlikely that it would be accepted for publication as an extensive review by top international health journals.
- ◇ The primary aim of the Harker Report is to develop a research agenda for advertising and social marketing in relation to obesity in New Zealand and Australia. However, the Report cannot be used to set a research agenda for the broader issue of obesity prevention, since social marketing is only a part of this.
- ◇ The Harker Report, by stating that television advertising has only ‘*limited effects*’ on food consumption by children, misrepresents the main findings from eminent international reports, such as:
  - the UK Hastings Report which states that food promotion has an effect on children’s preferences, purchase behaviour and consumption;
  - and the US McGinnis Report which concluded there is ‘*strong evidence*’ that television advertising influences the food and beverage preferences, purchase requests and short-term consumption of children aged 2-11 years.
- ◇ The authors of the Harker Report are not abreast of recent developments of obesity research in New Zealand.
- ◇ Recent findings from the 2002 national Children’s Nutrition Survey show significant associations between TV watching, consumption patterns of foods most commonly advertised on TV, and obesity.
- ◇ The issue of childhood obesity and advertising unhealthy foods or beverages on TV is not a scientific issue, but an ethical and moral issue.
- ◇ Removing the promotion of unhealthy foods and beverages from TV will assist the transition to a social environment that is less obesogenic.

## **Background**

I have been asked to review the report titled “*Advertising’s Role in Diet and Exercise in New Zealand and Australia: Developing a Research Agenda*”, prepared by Debra Harker and Michael Harker for the Foundation for Advertising Research [1], in my capacity as a public health researcher currently undertaking obesity research in New Zealand.

I am epidemiologist with nearly 30 years experience of research in both Australia and New Zealand, but mostly in New Zealand. During this time, I have carried out all the major types of epidemiological studies, including intervention, cohort, cross-sectional and case control studies. Over the last two decades I have reviewed scores of grant applications to the major research funding agencies in New Zealand, particularly the Health Research Council. I have also been involved in, or witnessed, some the major debates about public health and policy, including governmental strategies to decrease tobacco smoking and cot death; so I am familiar with the level of scientific information available to policy makers in the past when they made their decisions about these public health issues.

Regarding my research on obesity, I was a principal investigator on the 2002 national Children’s Nutrition Survey funded by the Ministry of Health [2], which has provided information on the causes of obesity in New Zealand children, some of which I will review below. I am currently the principal investigator of the New Zealand arm of the Obesity Prevention in Communities (OPIC) study which is being carried out also in Australia, Fiji and Tonga. I am also a member of the Scientific Committee of the Agencies for Nutrition Action (ANA) which has prepared two recent reports on the roles of sugary drinks and TV watching in causing childhood obesity [3,4].

## **Description of the Harker Report**

The Harker Report is a lengthy document of nearly 200 pages. It is unusually structured by having a 50 page Executive Summary, which is much longer than typical for a report of this nature, and which should be described more appropriately as an abridgement of the main part of the document which starts at page 51. The Report is longer than it need

be because sections are repeated (for example, the content of pages 172-173 repeats pages 165-167, which is repeated again in the Summary on page 48). The content of the Report is wide ranging, covering many issues, but only at a superficial level since it mainly relies on reviews, and does not systematically cite the original research around particular topics.

### **Aim of the Harker Report: what it is, and is not**

The aim of the Report is not specifically stated in the document, but statements by the authors on pages 51 and 52 claim that it:

1. is ‘an extensive review in the areas of diet, exercise and advertising’
2. ‘covers research conducted in the disciplines of public health, public policy and marketing with a view to investigating the possible factors that influence rising obesity levels’
3. and that the aim is not to replicate the recent reviews by Hastings (2003) and McGinnis (2006), but to build on them and ‘focus on some salient issues raised by these studies which may prove fertile ground for a research program advancing knowledge in this complex field, particularly in the New Zealand and Australian context’.

However, Aims 1 and 3 above are not consistent with each other, as an extensive review (Aim 1) would require searching for, and describing all, the studies on diet, exercise and advertising, which the authors have not done. The content of the Report is closer to Aim 3, as the authors have cited the recent reviews by Hastings and McGinnis, plus others by Zywicki et al (2004) and Young (2003), but have provided little or no details from the reviews about previous studies on diet, exercise and advertising. Only two of the 11 studies described in the Hastings Report, which examined the effect of food promotion on food consumption behaviour by children, are listed in the references of the Harker Report (Bolton 1983, Galst 1980).

By the standards currently used by health researchers, such as the evidenced-based reviews of the Cochrane Collaboration, the Harker Report cannot be considered ‘an

extensive review in the areas of diet, exercise and advertising'. These standards require a description of the literature search strategy so that it can be replicated by other researchers, the number of publications identified and the number excluded from the review, and then provision of details about the individual studies, along with a critique regarding their quality and a description of their findings. In my opinion, if the authors submitted the Harker Report to a top international medical or public health journal, and claim that it was an 'extensive review', it would not be accepted for publication.

With Aim 2 above, the authors claim that the Report covers the 'possible factors that influence rising obesity levels'. While the Report does cover many of the major factors causing obesity (eg. Table 3, pages 65 & 66), it does so only at a superficial level. For example, in Section 1.5 (Research Findings from the Literature, p. 70-80), the authors of the Harker Report cite six articles on TV watching and obesity (p.71). This number is only a small portion of all studies published on TV watching and obesity in children. A review published for ANA in 2006 identified 66 published analyses on TV watching and obesity in children, of which 47 found a positive association, 19 found no association, and none reported an inverse association [4]. The Harker Report does cite one paper on soft drink machines (Kann 2005) in Table 3 (p. 65), but makes no mention of the extensive literature on the role of sugary drinks in causing obesity in children, reviewed in another report for ANA [3]. Thus, the Harker Report skates thinly over the large body of international research and cannot claim to give a balanced overview of the major factors causing the obesity epidemic.

Although it is not specifically stated in the Report, in my opinion the primary aim of the Harker Report is to develop a research agenda for advertising and social marketing in relation to obesity, as this is the focus of the final section of the Report (Section 5). The Report cannot be used to set a research agenda for the much wider issue of obesity prevention of which social marketing is only a part. To claim that the Harker report provides a blueprint for the future of obesity research in New Zealand is unfair to the authors of the Report since it fails by this criterion (see below).

### **Harker Report misrepresents main findings from Overseas Reports**

On page 51 the authors of the Harker Report state that the aim of their report is not to replicate the reviews by Hastings (2003) and McGinnis (2006) but to build on them. On page 70 they state the reviews by Zywicki (2004), Hastings (2003) and Young (2003) ‘emphasise there is only *limited* evidence to support the conclusion that advertising per se is the root cause of increasing purchase of unhealthy foods’. On page 79 they conclude about the effects of television advertising: ‘Academic research and reviews reveal *limited* but statistically significant direct effects of television advertising on food preference, purchase requests and consumption’. (my italics)

These sentences understate the position on advertising reached by the two most important of these reports. The Hastings Report [5], prepared for the Food Standards Agency of Great Britain, in its Executive Summary (page 3) concluded:

“...the research literature shows that:

1. There is a lot of food advertising to children.
2. The advertised diet is less healthy than the recommended one.
3. Children enjoy and engage with food promotion.
4. Food promotion is having an effect, particularly on children’s preferences, purchase behaviour and consumption.
5. This effect is independent of other factors and operates at both a brand and category level.”

The McGinnis Report [6], prepared for the US Institute of Medicine of the National Academies, in its Executive Summary (pages 8-9) concluded there is ‘*strong evidence*’ that television advertising influences the food and beverage preferences, purchase requests and short-term consumption of children aged 2-11 years. (my italics)

### **Current NZ research projects to prevent Obesity**

Three major obesity prevention studies of children have been taking place in New Zealand over the last 3-4 years. These include the APPLE study, carried out in rural Otago by researchers from the University of Otago, the OPIC project carried out in South

Auckland by myself and colleagues at the University of Auckland, and Project Energize carried out in Hamilton by Waikato District Health Board. Preliminary results from the APPLE study, which successfully lowered obesity levels in children living in the intervention communities, have recently been published [7].

None of the above studies, which have all been taking place since 2004, and which are well known by the NZ public health community, plus the ANA sugary drink report, which was published in May 2005 and included results from the 2002 national children's nutrition survey, were cited in the Harker Report. These omissions by the Harker Report are surprising, and indicate that its authors are not abreast of recent developments in obesity research in New Zealand.

#### **What do we know about the causes of obesity in New Zealand?**

A number of risk factors for childhood obesity have been identified in the data collected in the 2002 national Children's Nutrition Survey (CNS). These findings have been presented on several occasions by me and my research colleagues at meetings in New Zealand since 2004, and are now well known by the public health workforce. The risk factors identified in the CNS are physical inactivity, watching too much TV, increased consumption of sugary drinks, missing breakfast and purchasing school food from a dairy/takeaway shop or school canteen [8]. Further, there is an association between the amount of TV watched and intake of foods high in fats and sugar. New Zealand children aged 5-14 years who watch the most TV have more frequent consumption of the foods most commonly advertised on TV: soft drinks and fruit drinks, some sweets and snacks and fast foods [9]. This is the likely mechanism through which TV watching contributes to obesity since the TV watching is related to adverse dietary intake rather than physical inactivity [4]. Further, the effects of watching TV in childhood and adolescence are long-lasting, since the Dunedin longitudinal study has shown that TV watching at ages 5-15 years increased the risk of obesity in adulthood [10].

### **Future Obesity Research in NZ**

The causes of obesity and other chronic diseases, such as diabetes and heart disease, have been studied for many years. The NZ Health Research Council now awards funding priority to intervention studies, which aim to test whether disease prevention strategies work, above observational studies which aim to determine the causes of disease. This policy is consistent with a move by international obesity researchers away from problem-orientated research, which identifies *causes*, towards doing solution-orientated research which identifies *solutions* [11].

In Section 5 of the Harker Report (pages 164-174) the authors develop an agenda for future research. The research topics proposed by the Harker Report for New Zealand are mostly problem-orientated research which aims to identify the causes of obesity (eg. Do food advertisements influence children's purchase requests? What factors influence child and activity patterns? Do persuasion and influence vary by age?). In fact, many of the specific aims of the type of future research supported by the Harker Report address issues specific to social marketing, and not the wider issue of solution-orientated obesity prevention.

In my opinion, it would be an unfortunate mistake to conclude from the long research agenda proposed by the Harker Report that political and legislative action against the drivers for obesity should be delayed (for many years) until the issues raised in the Harker Report have been clarified by further research.

### **What level of evidence is required before we can act?**

There currently exists a substantial body of evidence in New Zealand about the role of TV watching, advertisements and obesity. TV advertisements of food and beverages high in fat and sugar comprise a much higher proportion of all advertisements on New Zealand TV stations compared with Australia (69-80% v. 54%) [12]. Thus, New Zealand children who watch a lot of TV also watch a lot of TV food advertisements. It is no surprise then that increased TV watching is associated with increased consumption of foods and beverages high in fat and sugar by New Zealand children [9]. The final piece of evidence

in the causal pathway is that TV watching is a risk factor for obesity in NZ children [8], a finding that is consistent with international research [4].

The New Zealand and international research on the issue of TV watching, advertisements and childhood obesity is now so large and compelling that it is no longer a scientific issue. The science is clear cut - watching too much TV causes obesity through a pathway involving food consumption rather than displacement of physical activity [4].

Rather, the issue of TV advertisements and childhood obesity is now an ethical and moral issue. Is it morally and ethically acceptable to promote foods and beverages high in fat and sugar on TV when we know they cause obesity? The very presence of these foods and beverages on TV, the dominant broadcasting medium, signifies to children that they have the approval of society and are not harmful to health. We urgently need to create a social environment where the eating of foods and beverages high in fat and sugar is considered as socially unacceptable as smoking tobacco is today. Removing the promotion of these foods and beverages from TV will help to create that environment.

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