

**Submission to:**

**The Health Select Committee of Inquiry into Obesity  
and Type Two Diabetes in New Zealand**

**from:**

**Fight the Obesity Epidemic New Zealand Incorporated  
(FOE)**

**April 2006**



To: The Health Select Committee

### **Inquiry into Obesity and Type Two Diabetes in New Zealand**

We are pleased to present to you the submission from Fight the Obesity Epidemic New Zealand Incorporated (FOE). Thank you for the opportunity to participate in this very timely Inquiry.

FOE is a voluntary organisation working to promote policies to stop and reverse the rise of type 2 diabetes and obesity in children. It wants to change the New Zealand social, cultural, physical and regulatory environment so that it is easier for all New Zealanders, and especially children, to maintain a healthy body weight.

FOE was founded in 2001 after New Zealand delegates to the International Diabetes Federation and WHO meeting in Kuala Lumpur reacted to reports of increasing rates of obesity and type 2 diabetes in many member countries. We have been an outspoken voice in the obesity debate in New Zealand since 2002. Our website is a widely-used source of information on obesity prevention. We currently have over 270 members across New Zealand, and a Wellington-based Executive.

I would like the opportunity to appear before the Committee and speak to our submission, accompanied by another executive member (depending upon availability), and John White who wrote our submission.

Kind regards

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## **Executive Summary and Recommendations**

This submission addresses the Terms of Reference for the Inquiry in substantial detail. It is evidence-based, with New Zealand research and data used where these are available. Some of the key points from the submission are summarised briefly below, followed by a list of all FOE's recommendations.

### **Key points**

The likely causes of the obesity epidemic are many and varied, and relate to each other in complex ways. These causes come together to create an obesity-promoting (or “obesogenic”) environment which makes healthy choices harder. New Zealanders live with a constant barrage of inducements to consume foods and drinks that are not good for their health, while at the same time spending more time in sedentary activities and facing barriers to traditional forms of physical activity such as walking (Section 2).

The main reason for the increase in type 2 diabetes among New Zealanders, and its emergence in children and adolescents, is the growing incidence of obesity (Section 3).

A long list of serious consequences for the physical, psychological and social well-being of both children and adults are set out in Section 4. Maori and Pacific people are the most affected, with the twin obesity and type 2 diabetes epidemics extracting a heavy toll on their health and life expectancy.

Current obesity prevention approaches undertaken in New Zealand, including those under the Healthy Eating – Healthy Action Strategy, are generally not effective. They do not address the underlying environmental causes of the obesity epidemic. As well, they have been implemented in the context of an obesogenic environment where any positive impacts have been swamped by powerful countervailing influences, particularly the all-pervasive marketing of unhealthy foods (Sections 5 and 6).

Voluntary steps taken by the food industry under the Food Industry Accord are completely ineffective, as is shown in this submission (section 5.5 and Appendix 1). The recent revisions of the voluntary advertising codes are also shown to be seriously short of what is needed (Section 5.6 and Appendix 2).

If significant progress is to be made in halting and reversing the current trends in obesity and type 2 diabetes, major interventions not currently occurring in New Zealand are required (Section 7). These include:

- banning the advertising of all unhealthy foods and drinks to children in any medium

- restricting (and ideally banning) sponsorship involving brands of unhealthy foods and drinks, and in particular banning such sponsorship of school-related activities and junior sport
- prohibiting the sale of unhealthy foods or drinks in schools and pre-schools, including in vending machines
- prohibiting the distribution to children of free samples of unhealthy food, or free gifts or vouchers associated with such food
- introducing a compulsory 'traffic light' food labelling system into New Zealand that indicates immediately and easily the extent to which individual food products should be part of a healthy diet
- accepting the necessity of steps to make healthy diets more affordable, and preferably less expensive than unhealthy diets, and commissioning a report to identify the best solutions including those involving tax changes
- providing incentives to manufacturers to reduce the fat and sugar content and energy density of their products, both by increasing the price of unhealthy foods through excise taxes and enabling consumers to easily identify unhealthy foods when shopping through a 'traffic light' scheme.

There are many things that need to be done besides those picked out above, and included in the recommendations below. Our recommendations concentrate on environmental changes, and include only some of the actions that need to be done now. As well, there will need to be a continuing assessment of progress and the development of new initiatives, very much as there has been in the long campaign to reduce smoking. The marketers of unhealthy foods will, for example, continue to find new ways of reaching children, and there will be an ongoing need to respond to these.

## Recommendations

Under Terms of Reference 1, FOE recommends that the Committee:

- 1a **notes** that obesity in New Zealand has been increasing at a substantial rate in recent years among both adults and children, and that further increases are projected (section 2.1);
- 1b **notes** that type 2 diabetes is very widespread in New Zealand, and further large increases in the number of affected New Zealanders are projected (section 3.1);
- 1c **notes** that by far the main reason for increases in type 2 diabetes among New Zealanders, and its emergence in children and adolescents, is the growing incidence of obesity (section 3.2);

- 1d **notes** that the likely causes of increases in the incidence of obesity are many and varied, and relate to each other in complex ways (section 2);
- 1e **notes** that these causes come together to create an obesity-promoting (or “obesogenic”) environment in which all New Zealanders, and particularly children, face pervasive inducements to buy and eat foods that are not good for their health, while at the same time spending more time in sedentary activities and facing barriers to traditional forms of physical activity (section 2);
- 1f **notes** that attempts to put the blame for the obesity epidemic on any single cause are misguided (section 2).

Under Terms of Reference 2, FOE recommends that the Committee:

- 2a **notes** that obesity brings with it an array of serious risks to the physical, psychological and social well-being of both children and adults, and can result in earlier death (sections 4.1 and 4.2);
- 2b **notes** that type 2 diabetes, itself a major risk resulting from obesity, is a very serious disease that can lead to severe disability and death (section 4.3);
- 2c **notes** that Maori and Pacific peoples have particularly high levels of both obesity and type 2 diabetes, and that this is extracting a heavy toll on their health and life expectancy (section 4.4);
- 2e **notes** that New Zealanders living in the most deprived neighbourhoods are much more likely to be obese than those living in the least deprived neighbourhoods (section 4.5);
- 2f **notes** that a conservative estimate puts the costs of obesity for the New Zealand health sector as at least 2.5% of total expenditure, with this percentage expected to grow (section 4.6);
- 2g **notes** that the cost of diabetes health services in 2001/02 was estimated at \$247 million, with large future increases expected (section 4.6);
- 2h **notes** that obesity and type 2 diabetes impose other additional costs on individuals and the community, including losses in productivity (section 4.6).

Under Terms of Reference 3, FOE recommends that the Committee:

- 3a **notes** that well-designed and resourced international studies aimed at reducing increases in obesity at the population level through health education and information provision have not been successful (section 5.2);

- 3b **notes** that school-based interventions, including several well-designed and resourced programmes in the United States, have generally had no impact on reducing increases in childhood obesity, although in many cases they have resulted in improved nutrition and increased physical activity (sections 5.3);
- 3c **notes** that there is insufficient evidence of benefits on which to base a recommendation for the mass screening of children and adolescents for overweight and obesity (section 5.4);
- 3d **notes** that effective voluntary actions to reduce obesity by the food industry under the Food Industry Accord have been close to non-existent (section 5.5 and Appendix 1);
- 3e **notes** that the “key achievements” of the Food Industry Accord as reported to the Minister of Health in 2005 will have had a negative net effect on reducing obesity because of the heavy emphasis on sponsorship (section 5.5 and Appendix 1);
- 3f **notes** that the revised codes for advertising to children and advertising food released by the Advertising Standards Authority in April 2006 will have no more than a very marginal effect on the way that food is currently advertised to children (section 5.6 and Appendix 2);
- 3g **notes** that current obesity prevention approaches undertaken in New Zealand are, in general, not effective because they do not address the underlying environmental causes of the obesity epidemic, and have been implemented in the context of an obesogenic environment where any positive impacts have been swamped by powerful countervailing influences (section 5);
- 3h **notes** that the current Implementation Plan for the Healthy Eating – Healthy Action Strategy (HEHA) includes many actions that will be a necessary part of the total effort needed to significantly reduce obesity, but that the Plan is virtually silent on the major interventions required to significantly reduce obesity-promoting features of the New Zealand environment (section 6);
- 3i **notes** that in the absence of a reduction in the obesity-promoting features of the New Zealand environment, actions from the HEHA Implementation Plan are, based on the evidence reviewed in Section 5, unlikely to be effective in reducing the rate of growth in obesity (section 6).

Under Terms of Reference 4, FOE recommends that the Committee:

- 4a **notes** that calls for further evidence before making major changes to reduce obesity-promoting features in the environment are not justifiable, and may lead to indefinite delay (7.1);

- 4b **recommends** to Parliament that no advertisements for unhealthy foods be shown on television during the times when programmes intended for those aged 16 and under are being shown, or when a substantial proportion of the viewing audience is likely to be aged 16 and under (section 7.2);
- 4c **recommends** to Parliament that no advertisements for unhealthy foods be included in magazines or any other media when a substantial proportion of those exposed to the advertisements are likely to be aged 16 and under (section 7.2);
- 4d **recommends** to Parliament that, as a minimum, sponsorship that associates brands of unhealthy foods or drinks with any activities related to schools or pre-schools, or with children’s sport, be prohibited (section 7.3);
- 4e **notes** the growing use by marketers of unhealthy food of new forms of media and marketing techniques to reach children (section 7.4);
- 4f **recommends** to Parliament that the pending new Public Health Act includes broad regulatory powers to enable quick responses to combat any form of marketing unhealthy food to children (section 7.4);
- 4g **recommends** to Parliament that the distribution of free samples of unhealthy food, or free gifts, tokens or vouchers that are associated with unhealthy food, be prohibited to children aged 16 and under (section 7.4);
- 4h **recommends** to Parliament that the sale of unhealthy foods or drinks in schools and pre-schools, including in vending machines, be prohibited (section 7.5);
- 4i **recommends** to Parliament that a compulsory ‘traffic light’ food labelling system that indicates the extent to which individual food products should be part of a healthy diet be introduced into New Zealand (section 7.6);
- 4j **recommends** that Government commission a report from Treasury or from suitable consultants (“the Report” in recommendations 4k to 4m below) on the best ways of making healthy diets more affordable, and preferably less expensive than unhealthy diets (section 7.7);
- 4k **recommends** to Government that the Report consider all options for reducing the cost of healthy foods and drinks, and increasing the cost of unhealthy foods and drinks, including:
- i excise taxes that could be imposed on unhealthy foods and drinks or on some of their constituents (fat and sugar)
  - ii use of food vouchers such as in the “Healthy Start” programme in Great Britain
  - iii subsidies of healthy foods in schools

- iv tax incentives for employers to subsidise healthy foods in workplaces
  - v removing GST from fruit and vegetables (section 7.7);
- 4l **recommends** to Government that the Report concentrate on finding solutions that can be recommended to Government (section 7.7);
- 4m **recommends** to Government that the authors of the Report be required to consult extensively, including with public health groups concerned about obesity and type 2 diabetes (section 7.7);
- 4n **notes** that both increasing the price of unhealthy foods through excise taxes and enabling consumers to easily identify unhealthy foods when shopping (the 'traffic light' system) will put pressure on food manufacturers to reduce the fat and sugar content and energy density of their products (sections 7.6 and 7.7);
- 4o **supports** initiatives that make it easier for New Zealanders to increase their level of physical activity as part of their everyday life, including:
- i development of a regulatory framework that allows the Ministry of Health to have substantive input into regulations relating to urban planning
  - ii development of regulations that specify minimum requirements relating to the provision of play areas, parks, footpaths, cycleways and walkways in urban areas, including ways of enhancing personal safety when using these (section 7.8).

Under Terms of Reference 5, FOE requests that the Committee:

- 5a **requests** that Cabinet delays further consideration of provisions in the Public Health Bill relating to non-communicable diseases until after the Committee's report has been considered by Parliament (section 8).

# 1 Introduction

Nowhere does the ounce of prevention versus the pound of treatment apply more appropriately than with obesity because of the difficulty of losing excess fat once it has been gained.<sup>1</sup>

The Terms of Reference of the Inquiry focus on prevention, and mention children in particular. FOE believes that this is the right emphasis in tackling the obesity and type 2 diabetes epidemics in New Zealand.

There are very sound reasons why strategies aimed at preventing weight gain offer much more than treating obesity and type 2 diabetes in individuals once they have developed:

- obesity and type 2 diabetes develop over time and, once developed, are difficult to treat
- the health consequences of obesity, which include type 2 diabetes, are the result of cumulative metabolic and physical stresses resulting from excess weight over a long period and may not be fully reversible
- the proportion of the population that is obese means that there are insufficient health resources to offer treatment to all.<sup>2</sup>

Prevention is the only realistic solution.<sup>3</sup> And the younger the person, the more imperative prevention becomes. Giving a priority to prevention in children makes sense for many reasons, including:

- it is easier to develop good nutritional and physical activity habits that will persist throughout life during childhood than to change these habits later
- childhood obesity is likely to persist into adulthood
- there is a greater range of preventive interventions available for children.

The sections of this submission that follow are arranged to keep them consistent with the order of the Terms of Reference. Sections 2 (obesity) and 3 (type 2 diabetes) consider likely causes of the obesity and type 2 diabetes epidemics. Section 4 looks at the effects of obesity and type 2 diabetes on health, the implications of the epidemics for different ethnic and socio-economic groups, and the economic impacts. Sections 5 and 6 consider the effectiveness of current obesity prevention approaches and interventions, and finds them wanting. In Section 7 the interventions required to effectively turn around the epidemics are outlined. Finally, Section 8 suggests that the Public Health Bill is the appropriate vehicle for implementing much of the change that is required.

This is an evidence-based submission. As much as possible we have relied on New Zealand research and data. Where relevant New Zealand information is not available we have given preference to research and data from countries likely to be similar to New Zealand, particularly Australia. There are also a number of obesity-related initiatives in Great Britain that are relevant to New Zealand. As well, we have discussed several large and complex obesity interventions that have only been attempted in the United States.

## **2 Causative factors likely to be driving increases in obesity**

### **2.1 Obesity in New Zealand**

Obesity in both children and adults has been increasing rapidly in recent years, both in New Zealand and internationally. Many health authorities, including the Ministry of Health<sup>4</sup> and the World Health Organisation<sup>2</sup> (WHO), are now describing the situation we face as an obesity epidemic.

#### *2.1.1 The definition and measurement of obesity*

Obesity is the condition in which excess body fat has accumulated to such an extent that health may be adversely affected.<sup>2</sup> It is most reliably measured by expensive techniques such as computed tomography or magnetic resonance imaging.<sup>3,5</sup> For practical reasons, however, anthropometric measures such as waist circumference and Body Mass Index (BMI) are generally used.

BMI is the most commonly applied anthropometric measure, particularly in assessing prevalence and trends. It has been described as “the most useful, albeit crude, population-level measure of obesity”.<sup>2</sup> BMI is calculated as weight in kilograms divided by the square of height in metres (kg/m<sup>2</sup>). The Ministry of Health<sup>6</sup> uses the most common classification based on BMI:

- Normal weight – BMI between 18.5 and 24.9
- Overweight – BMI between 25.0 and 29.9
- Obese – BMI 30 or more.

For adults the BMI cut-offs for overweight and obesity were developed from studies that showed increased risks to health with rising BMI values. Establishing cut-offs for children has been more difficult, and some definitions as to what constitutes overweight and obesity in children are not comparable with others.<sup>7</sup> The Ministry of Health<sup>8</sup> follows the system developed by the International Obesity Task Force (IOTF) which uses the same cut-offs as for adults, but adjusted for age and sex.<sup>9</sup>

Application of the BMI cut-offs shows that, in almost all countries, substantial percentages of the population are overweight and obese.

Critics who wish to down play the seriousness of the obesity epidemic sometimes do so by attacking the use of BMI. They point to individuals such

as All Blacks or film stars who are overweight or obese according to the BMI formula. Some people with a large amount of muscle and little fat may indeed have a BMI exceeding 25 or even 30. But this overlooks completely that BMI is being used as a population indicator in studies of obesity prevalence and trends. For adults the cut-offs are based on BMI population values at which health risks have been demonstrated to increase.

### *2.1.2 Prevalence and trends*

Obesity affects large numbers of New Zealanders, both adults and children, and these numbers have been growing rapidly in recent years.

The 2002 National Children's Nutrition survey found that 31% of New Zealand children aged 5 to 14 years were either overweight (21%) or obese (10%).<sup>8</sup>

There is only limited information on childhood obesity trends in New Zealand, but this information is consistent with the many international studies showing rapid growth in recent years.<sup>10</sup> A study of 11 to 12 year-old Hawke's Bay children, for example, found that more than twice as many were overweight or obese in 2000 as in 1989.<sup>11</sup>

Results from the 2002/03 New Zealand Health Survey of New Zealanders aged 15 years and over showed a similar pattern, but higher levels of overweight and obesity, than for children. In all, 56% of adult New Zealanders were overweight (35%) or obese (21%).<sup>12</sup>

Obesity levels have risen from 10% of adult New Zealanders in 1977 to 21% in 2003, while levels of overweight have remained much the same.<sup>4</sup> A study by the Ministry of Health and University of Auckland has estimated that, under a "business as usual" scenario, there will be continuing substantial growth in obesity among New Zealanders through to 2011, with somewhat lower growth under an "intervention" scenario.<sup>13</sup>

## **2.2 The balance between energy intake and energy expenditure**

An increase in the incidence of obesity within a population occurs when a substantial proportion of individuals become more obese. A person becomes more obese when, over a prolonged period, average energy intake exceeds average energy expenditure.<sup>2</sup> The increase in obesity is therefore occurring because, on average, people are either deriving more energy from their diet, expending less energy, or both.

A number of feedback mechanisms are involved in fat storage and release, resting metabolic rate and energy expenditure. These mechanisms are influenced by our genes<sup>3</sup>, making some people more susceptible to obesity than others. But increases in obesity have been occurring much too rapidly to be explained by changes in the gene pool.<sup>14</sup> Explanations must therefore be sought in terms of changes to the social, economic, physical and cultural environment in which we live. We need to examine what may be leading us to eat more and/or become less active.

### **2.3 Changes in energy intake**

Assessing changes over time in energy intake is difficult, and is not helped by a growing trend for under-reporting of dietary intake. Available evidence suggests some increase in energy intake in recent years.<sup>13</sup> A study looking at changes in food supply estimated that there was a rise of 8% in total energy intake per day among New Zealanders between 1985 and 1995.<sup>15</sup> An Australian study using interviews by dietitians reported that the average energy intake of Australian adults living in capital cities increased by 3% to 4% between 1983 and 1995. The same study reported large increases in average energy intake between 1985 and 1995 for girls (11%) and boys (15%) aged 10 to 15 years.<sup>16</sup> In the United Kingdom earlier estimates suggesting that energy intake was falling, but that energy expenditure was falling even faster, has been contradicted by more recent evidence that energy intake is rising.<sup>17</sup>

Studies of energy intake have used very different methods, from making assumptions about food intake using national food production figures, to data collection by dietitians via interviews. Inevitably, different results have emerged from the range of studies across a number of countries. The Committee should be aware that, on occasion, food industry advocates have argued from a selective use of research results (usually from trends in national food production) that energy intake is not rising, and that therefore we should look to changes in physical activity as the villain behind the obesity epidemic.<sup>16</sup> The evidence, and in particular that from New Zealand and Australia, does not support this view.

### **2.4 Changes in the consumption of energy-dense foods**

Energy-dense foods supply a large number of calories relative to their volume and weight. According to the WHO, there is “convincing evidence that a high intake of energy-dense foods promotes weight gain”.<sup>18</sup> Energy-dense foods are less filling than other foods that supply the same amount of energy but with greater volume and weight. Further, because they are highly processed and require little chewing, they can be eaten faster with the result that the body has less opportunity to signal satiety via feedback mechanisms.<sup>19</sup>

Dietary fats are high in energy density, and there is substantial evidence that high-fat diets are associated with higher energy intakes and higher body weight. However, at the same time as obesity has been increasing, the percentage of energy derived from fats appears not to have been rising and may have been falling.<sup>13 20</sup> Change in total fat consumption may not therefore be one of the reasons behind the obesity epidemic, at least in adults.

There has been, however, an increase in the consumption of energy-dense foods, and particularly fast foods (see next section). High fat and sugar content as well as low fibre content all contribute to the energy density of these foods.

## **2.5 Reduced home preparation of food and greater use of fast food outlets and restaurants**

Fast food has been called “the ideal obesigenic foodstuff”.<sup>21</sup> Higher consumption of fast food appears to be one of the drivers of the obesity epidemic.<sup>21 22</sup>

The proportion of foods that US children consumed from restaurants and fast food outlets increased by nearly 300% between 1977 and 1996.<sup>23</sup> In 1970, 26% of the food dollar in the US was spent on food prepared outside the home, climbing to 39% by 1995. This food has been shown to be higher in total energy, total fat and saturated fat than home-prepared food.<sup>24</sup> A recent review concluded that the “evidence implicating the increasing use of food prepared outside the home as a risk for obesity is largely limited to the US but this may be extrapolated to other western countries”.<sup>24</sup>

More frequent consumption of fast food has been shown to result in increased energy and decreased micronutrient consumption.<sup>25</sup> Fast food is typically energy-dense,<sup>3 19</sup> and there is substantial evidence that consumption of foods with high energy density results in higher energy intake that can lead to obesity.<sup>26-30</sup>

## **2.6 Larger portion sizes offering better ‘value’ for money**

US data show increases in portion sizes between the 1970s and 1990s for almost all food types, with the largest increases being for meals consumed at fast food outlets and in the home.<sup>31</sup> While young children have robust biological mechanisms to regulate energy intake, it appears that older children are more influenced by environment factors and inclined to eat more when provided with larger portions.<sup>19</sup> Several laboratory-based studies have shown that providing older children and adults with larger food portions can lead to significant increases in energy intake.<sup>32</sup> However, a review has concluded that while “The proposition that large portion sizes promote overconsumption is logical and likely ... the empirical studies, while supportive, are very few in number”.<sup>24</sup>

## **2.7 Increased consumption of soft drinks, particularly by children**

Soft drink consumption has been increasing in recent years among children, with large increases reported from the US and Great Britain.<sup>19</sup> A recent New Zealand review found “extensive evidence that sugary drinks contribute to weight gain in children”.<sup>33</sup> Another review found that, overall, the evidence that drinks high in sugar promote weight gain is “consistent and moderately strong”, and is most relevant for groups with a high intake such as children.<sup>24</sup>

## **2.8 Changes in the availability and relative price of less healthy foods and drinks**

Food purchases are sensitive to both price and family income, and many people in New Zealand struggle to obtain enough high-quality food to eat a

healthy diet.<sup>6</sup> New Zealanders living in more deprived areas are more likely to have poor nutrition, and have higher levels of obesity. Surveys in Britain have shown that buying healthier food options rather than standard options would cost shoppers half as much again and more.<sup>34</sup> Fast foods and soft drinks are cheaper options, and are increasingly featuring in New Zealand diets (see 2.5 and 2.7 above). From 1988 to 1998 the cost of soft drinks in New Zealand halved.<sup>6</sup>

## **2.9 Promotion and marketing of food directed at children**

There has been a dramatic growth in marketing food to children, who now grow up surrounded by advertising, branding and other forms of promotion. From a young age children grow up exposed to saturation-level promotion of unhealthy foods.

Marketers have become increasingly sophisticated in developing promotional strategies and techniques capable of influencing child consumers.<sup>35 36</sup> Television is the main means by which food marketers reach children, and food products dominate television advertising to children.<sup>35</sup> There are a wide range of other techniques used to promote food to children, including sponsorship, in-school marketing, free samples of food items, free gifts or tokens with food items, novel packaging, and tie-ins with movies and computer software.<sup>35</sup> And marketers are quick to exploit new media: unhealthy foods are now advertised to children on both the internet<sup>37</sup> and mobile phones.<sup>38</sup> Techniques such as ‘pester power’ – encouraging children to nag their parent to buy advertised food products – are among the strategies used by advertisers.<sup>36</sup>

Over time, promotion to children of staples and fresh foods have reduced, and have been replaced by promotion of pre-sugared breakfast cereals, soft-drinks, confectionery, savoury snacks and (more recently) fast-food outlets.<sup>35</sup>

There is “strong evidence” that food promotion to children leads to increasing purchase requests for foods high in fat, sugar or salt.<sup>35</sup>

There is “reasonably strong” evidence that food promotion causes both brand switching and changes to the type of food purchased, with stronger support for the latter.<sup>35</sup> In other words, the effects of food promotion are not limited to brand switching as the food industry sometimes argues, but affect the types of food that children eat.

## **2.10 Television and childhood obesity**

Children spend a substantial portion of their lives watching television, and numerous studies have documented a relationship between hours spent watching television and increased body weight.<sup>39 40 41</sup> A New Zealand study is among the more important of these. It tracked the television viewing habits and BMI of about 1000 babies born in Dunedin in 1972 and 1973. Having a higher BMI at age 26 was substantially attributed to having spent greater time spent watching television between ages 5 to 15.<sup>42</sup>

Four mechanisms have been proposed as to how television viewing might cause obesity: (1) the effects of advertising, (2) eating while watching, (3) displacement of physical activity, and (4) reduced resting metabolism.<sup>41</sup> Teasing out which of these hypothesised causal mechanisms might be operating has been difficult.<sup>35</sup> They are inter-related: longer hours spent watching means exposure to a greater number of advertisements for obesity-promoting foods, greater opportunities for snacking, reduced time for exercise, and a longer period when body metabolism is low.

A study of advertisements during children's viewing times showed that in 2005 both TV3 (80%) and TV2 (69%) had a higher proportion of advertisements for foods classified as being "high in fat and/or sugar" than did Australian channels (54%).<sup>43</sup> This is not a recent development: an earlier study found that in 1995 and 1996 New Zealand had a high rate of advertising food to children on television by international standards, with the foods advertised being of poor nutritional quality.<sup>44</sup> The position appears to have been deteriorating, as the average number of food advertisements for food on TV2 in the afternoon timeslot in 2005 (12.8) was higher than in 1997 (8.0).<sup>43</sup>

## **2.11 Reduced physical activity and increased sedentary behaviour**

Many studies which measure individuals on a number of attributes at the same point in time have shown an inverse relationship between physical activity and obesity levels.<sup>2 13</sup> These studies cannot, however, show the direction of any causal relationship. They cannot tell us whether people are more obese because they are less active, or less active because they are more obese.

Studies which track the same individuals over a period of years are more useful in teasing out causality. They do this by seeing whether those who are more physically active are less likely to become obese than those who are less active. Several such studies have shown that higher levels of physical activity will result in lower levels of obesity,<sup>2 13</sup> but this remains an area where more research is needed, particularly in establishing the amount of regular physical activity needed to effectively prevent weight gain.<sup>45 46</sup> The key to preventing weight gain seems to be ongoing physical activity rather than previous physical activity or enrolment in an exercise programme.<sup>18</sup>

New Zealand children and adolescents appear to be becoming less active as measured on a number of dimensions. A worrying statistic is that the proportion of those aged 5 to 17 years who reported no activity in the week before they were surveyed increased from around 8% in 1997 to 13% in 2001. This trend was evident for both girls and boys.<sup>47</sup> SPARC may be able to provide more updated information from repeats of this survey that have not yet been published.<sup>48</sup>

There are numerous examples of ways in which modern lifestyles, work practices and built environments can lead to lower energy expenditure. Trends which have occurred in New Zealand at the same time that obesity has been increasing include:

- use of motorised transport has increased, including in New Zealand<sup>2 49-51</sup>
- walking and cycling, particularly as part of everyday life, have decreased, including in New Zealand<sup>2 3 50</sup>
- more people live in cities, with fewer opportunities for children to play outside, both because of limitations in the built environment and because of parents' concerns about safety<sup>2</sup>
- workplaces have become more mechanised and automated, and fewer people are engaged in manual labour<sup>2 49</sup>
- there are more labour-saving devices in the home<sup>2</sup>
- public buildings increasingly have lifts, escalators and automatic doors<sup>2</sup>
- hours spent watching television have increased<sup>2 49</sup>
- computer and video games have been developed and have become increasingly popular.

## **2.12 Changes in how children travel to school**

A 2002 study<sup>50</sup> documented some disturbing trends from an obesity perspective in the ways in which New Zealand children travel to school. Cycling as a means of transport declined by about 20% during the 1990s, with the greatest decrease occurring among children, for whom cycling was previously a common way of travelling to and from school. Safety concerns are thought to be the main reason for this trend. This was matched by a dramatic increase in the driving of children to school by parents, such trips doubling during the 1990s. Reasons given for this shift include longer distances to school in some rural areas due to school closures, reduction in provision of school buses, and safety concerns of parents. As the study points out, the ultimate impact is “more car-related health risks and less “active transport” physical activity among children, increasing the risk of obesity”.

## **2.13 Changes in breastfeeding practices**

Breastfeeding has been shown to have a small relationship with reduced obesity in childhood.<sup>24 52</sup> It may need to be exclusive and sustained for at least four months to have this effect.<sup>49</sup> While it is unlikely that any changes in breastfeeding practices have had more than a minimal causal effect on increases in childhood obesity, nevertheless because of its numerous other benefits, breastfeeding is worth promoting vigorously.<sup>49</sup> There is also limited evidence that breastfeeding may help mothers return to their pre-pregnancy weight.<sup>49</sup>

## **2.14 Reduced cooking skills**

The House of Commons Health Committee (2004) took considerable heed of submissions suggesting that a growing number of British people lacked the

basic skills to prepare a healthy meal.<sup>34</sup> This may also hold true in New Zealand.

## **2.15 Changes to family lifestyles**

The lifestyles of New Zealanders have been changing in many ways that might impact on obesity. This section looks at just one change – increased hours spent at work by child-rearing parents – and suggests how this may have contributed to increases in childhood obesity.

Analysis of trends in New Zealand census data from 1986 through to 2001 has shown that child-rearing couples have been working longer hours, with the strongest growth in cases where both partners work full-time, or one works full-time and one part-time. Hours worked by single child-rearing parents, and the number of such parents, also increased over the period.<sup>53</sup> One can speculate that the likely outcome is greater numbers of children left to their own devices for some period outside school hours or in holidays. Free of parental supervision children will tend to watch more television or play video games. Busy working parents are also less likely to supervise eating behaviours. The result is an increase in the likelihood of obesity developing.

## **2.16 Ethnic differences in children's obesity-related behaviours**

A recent secondary data analysis of the 2002 National Children's Nutrition Survey considered how the prevalence of nutrition and physical activity behaviours differ by ethnicity, after controlling for other socio-demographic characteristics.<sup>54</sup> The study found:

Maori children and Pacific children were more active than New Zealand European/Other (NZE0) children. Pacific children and Maori children were significantly more likely to skip meals than NZEO children. Pacific children and Maori children were significantly more likely to buy some/most of the food they consumed at school from the tuckshop or dairy while NZEO children were more likely to bring their school food only from home. Likewise, Pacific children and Maori children were significantly more likely to be high consumers of some fatty and sugary foods than NZEO children.<sup>54</sup>

The authors concluded that school-based programmes that aimed to improve access to and subsidise the price in healthy foods, including breakfast, could greatly benefit Maori and Pacific students. The study also suggests that it is poorer nutrition rather than reduced physical activity that is contributing to the high levels of obesity among Maori and Pacific children.

## **2.17 Conclusion and recommendations**

The conclusions to Section 2 are summed up in the recommendations below.

FOE recommends that the Committee:

- *notes that obesity has been increasing at a substantial rate in recent years among both adults and children, and that further increases are projected;*
- *notes that the likely causes of increases in the incidence of obesity are many and varied, and relate to each other in complex ways;*
- *notes that these causes come together to create an obesity-promoting (or “obesogenic”) environment in which all New Zealanders, and particularly children, face pervasive inducements to buy and eat foods that are not good for their health, while at the same time spending more time in sedentary activities and facing barriers to traditional forms of physical activity;*
- *notes that attempts to put the blame for the obesity epidemic on any single cause are misguided.*

### **3 Causative factors likely to be driving increases in type 2 diabetes**

#### **3.1 Type 2 diabetes in New Zealand**

Type 2 diabetes is the most common form of diabetes among adults, and is now occurring increasingly among adolescents and children.<sup>55</sup> At the Auckland Diabetes Centre, for example, two adolescents were diagnosed with type 2 diabetes in 1996, but this rose to 18 in 2002.<sup>56</sup> A study of all cases of type 2 diabetes diagnosed in New Zealand children aged under 15 years of age during 1999 and 2000 found 12 cases, six of whom were Maori.<sup>57</sup>

A Ministry of Health study has estimated that in 1996 there were about 81,000 New Zealanders aged 25 to 89 with diagnosed (mainly type 2) diabetes, and that the real number, assuming one undiagnosed for every diagnosed case, was probably about twice this.<sup>58</sup>

The Ministry of Health has estimated that about 4700 New Zealanders were newly diagnosed with type 2 diabetes in 1996. This is expected to grow to around 11,000 in 2011. Increases in obesity are expected to account for about 31% of this growth, with the rest mainly accounted for by demographic changes.<sup>58</sup>

#### **3.2 The link between type 2 diabetes and obesity**

Type 2 diabetes was previously known as “noninsulin-dependent diabetes mellitus” or “adult-onset diabetes”. The great majority of people with diabetes have this form. Those with type 2 diabetes produce insulin, but either do not make enough insulin or their bodies do not use the insulin they make.<sup>59</sup>

Type 1 diabetes is a life-long condition, previously known as “insulin dependent diabetes mellitus” or “juvenile diabetes”, in which the pancreas

stops making insulin.<sup>59</sup> It is important to distinguish type 1 diabetes from type 2 diabetes. Unlike type 1 diabetes, lifestyle typically plays a large part in the development of type 2 diabetes. That is why it is pleasing to see that the Inquiry is considering type 2 diabetes (but not type 1) in conjunction with obesity.

There is strong evidence that “the principal (albeit not exclusive) driver of the type 2 diabetes epidemic is overweight and obesity, especially abdominal fat deposition”.<sup>58</sup> Some 60-90% of those with type 2 diabetes are or have been obese.<sup>60</sup> A Ministry of Health and University of Auckland study estimated that, in older age groups of New Zealanders, around 80% of deaths from diabetes in 1997 were attributable to excess body weight.<sup>13</sup> Further, there is substantial evidence that the higher incidence of type 2 diabetes in Maori and Pacific peoples is mainly the result of their higher levels of obesity.<sup>61 62</sup>

The relationship between type 2 diabetes and obesity is so strong that the term ‘diabesity’ has been coined. Obesity leads to a progressive rise in insulin resistance. Longitudinal studies have shown that people genetically predisposed to defective insulin secretion go on to develop diabetes when, due to obesity, they have acquired insulin resistance. Type 2 diabetes develops once insulin secretion can no longer compensate for insulin resistance.<sup>60</sup>

FOE recommends that the Committee:

- *notes that type 2 diabetes is very widespread in New Zealand, and further large increases in the number of affected New Zealanders are projected;*
- *notes that by far the main reason for increases in type 2 diabetes among New Zealanders, and its emergence in children and adolescents, is the growing incidence of obesity.*

## **4 The effects of obesity and type 2 diabetes**

### **4.1 The health effects of obesity for children**

#### *4.1.1 Risks to physical health*

The growth of childhood obesity has resulted in the exposure of children to increased risk of a number of physical health conditions, including some once considered rare in children (cardiovascular risk factors, type 2 diabetes and menstrual abnormalities).<sup>3</sup> Risks to children’s physical health include:

- asthma<sup>3 63 64</sup>
- sleep-disordered breathing<sup>3 63 65</sup>
- liver disease<sup>3 63 65</sup>
- cardiovascular risk factors including hypertension and cholesterol<sup>2 3 63-65</sup>

- metabolic syndrome<sup>63 65-67</sup>
- type 2 diabetes<sup>3 63 66</sup>
- menstrual problems and early menarche<sup>3 63 65</sup>
- neurological disorders<sup>63 65</sup>
- orthopaedic complications<sup>2 63 65</sup>
- skin disorders<sup>63 65</sup>
- chronic inflammation<sup>64 66</sup>

#### 4.1.2 *Risks to psychological and social well-being*

Poor psychosocial functioning has been identified as the most common consequence of child and adolescent obesity in western countries.<sup>2</sup> In these countries obese children and adolescents are more likely to experience isolation, stigmatisation and bullying,<sup>3 65 66</sup> and to develop psychological or psychiatric problems,<sup>64</sup> than those of normal weight.

#### 4.1.3 *Risks to health during adulthood arising from childhood obesity*

Perhaps the most important health risk from childhood obesity is persistence of obesity into adulthood, with all the health risks that this entails. The risk of obesity in adulthood is three to ten times higher for those who were obese as children.<sup>5 65</sup> Cardiovascular disease in adulthood can have its origins in childhood obesity, and there is evidence for increased risk of earlier death for those overweight or obese at age 18.<sup>64</sup> Obesity in adolescence has also been linked with higher risk of death from cancer in later life.<sup>68</sup>

There is “high quality” evidence that obesity in adolescence has adverse social and economic effects on adults.<sup>64</sup> A United States study, for example, found that women who were overweight during adolescence and early adulthood were more likely to have lower incomes and marriage rates than those with other forms of chronic physical disability during adolescence.<sup>65</sup>

## 4.2 **The health effects of obesity for adults**

### 4.2.1 *Risks to physical health*

Obesity in adulthood raises the risk for a number of serious diseases and conditions, including the main killers of New Zealanders. The result can be a serious reduction in quality of life, as well as increased risk of earlier death. Risks to health include:

- cardiovascular disease<sup>2 13 69-72</sup>
- stroke<sup>2 13</sup>
- cancers<sup>2 13 69 73</sup>
- type 2 diabetes<sup>2 13 17 69</sup>
- metabolic syndrome<sup>2 69</sup>

- gallbladder disease<sup>2 69</sup>
- liver disease<sup>17 69</sup>
- reproductive disorders<sup>2 69</sup>
- adverse pregnancy outcomes<sup>74</sup>
- osteoarthritis and gout<sup>2 69</sup>
- respiratory problems and sleep-related breathing disorders.<sup>2 69</sup>

#### 4.2.2 *Risks to social well-being and psychological health*

Obese individuals are highly stigmatised, with discrimination often the result. Because of their obesity they can be denied jobs, disadvantaged in education, and marginalised by health care professionals. This can have a large impact on social status and quality of life.<sup>2 75</sup> These conclusions, however, are based mainly on research in the United States, and may not apply to the same extent in New Zealand.

The evidence about the psychological effects of obesity are less clear. Any psychological effects of obesity result from culture-related factors such as discrimination and concern about body image, and not directly as a result of obesity.<sup>2 17</sup>

#### 4.2.3 *Obesity and risk of earlier death*

A Ministry of Health and University of Auckland study estimated that in 1997 more than 3000 deaths in New Zealand were attributable to higher than optimal BMI. These deaths occurred through the impact of higher body weight on heart disease, stroke, diabetes, and colorectal and breast cancers. This was 11% of all deaths. More than 37,000 years of life were estimated to be lost as a result of these deaths. It was estimated that an intervention scenario involving a reduction in the rate of increase in BMI would result, in 2011, in 385 fewer deaths, and nearly 5000 fewer years of life lost.<sup>13</sup>

There is ongoing controversy about the relationship between obesity and risk of earlier death. While it is generally accepted that risk of death is substantially higher for the obese (BMI over 30),<sup>24</sup> it is much less clear whether this also applies to the overweight (BMI 25 to 30). Some critics have noted that in many countries life expectancy has been increasing at the same time as obesity. The reason for this apparent paradox is that death rates from cardiovascular disease have been falling as a result, among other factors, of reduced smoking and expensive improvements in medical interventions. A common conclusion is that obesity may be more important as a cause of serious health problems in the living than as a cause of earlier death.<sup>2 76</sup> Many people are getting more obese and sicker, but are being kept alive longer by an improved but increasingly expensive health system.

A note of caution is needed, however, in applying conclusions from trends in other countries to New Zealand. Two recent studies have shown that the previous downward trend in deaths from heart disease in New Zealand have

been flattening out, and may be about to rise.<sup>72 77</sup> Particularly worrying is that Maori deaths from cardiovascular disease are projected to rise between now and 2015, while those for non-Maori continue to fall, but more slowly than previously. The medical director of the New Zealand Heart Foundation sees the rise in obesity and diabetes as the most plausible reason for these trends.<sup>78</sup>

### **4.3 The health effects of type 2 diabetes**

#### *4.3.1 Type 2 diabetes in adults*

Type 2 diabetes is a very serious disease that can lead to severe disability and death. It is a myth to regard it as milder in its consequences than type 1 diabetes. Among the more serious outcomes of type 2 diabetes are:

- eye complications including blindness
- kidney disease leading to kidney failure
- neurological complications
- cardiovascular complications
- foot complications leading to amputation.<sup>79</sup>

A Ministry of Health study estimated that in 1996 almost 1500 deaths in New Zealand were attributable to diabetes (mainly type 2), with almost 20,000 years of life lost.<sup>58</sup>

#### *4.3.2 Type 2 diabetes in children*

Type 2 diabetes is a particularly serious disease for children. Its early onset leads to the complications listed in section 4.3.1 at an earlier age than for those who develop type 2 diabetes in adulthood.<sup>80</sup>

### **4.4 The effects of obesity and type 2 diabetes across ethnic groups**

#### *4.4.1 Ethnic differences in obesity*

The 2002 National Children's Nutrition survey found that overweight and obesity levels were highest for Pacific children (62%), followed by Maori (41%) then European/Other (24%).<sup>8</sup> A similar pattern emerged from the results of the 2002/03 New Zealand Health Survey of New Zealanders aged 15 years and over. Overweight and obesity levels were highest for Pacific adults (82%), then Maori (64%), European/Other (53%) and Asians (27%).<sup>12</sup>

There is a large literature discussing whether the BMI cut-offs for overweight and obesity should be lower for Asians, and higher for Polynesians including Maori. The outcome of this debate remains inconclusive. There is evidence that at a given BMI, Maori and Pacific peoples have a lower level of body fat than Europeans. The Ministry of Health has, until very recently, chosen to use

the same cut-offs across all ethnic groups when reporting prevalence and trends.\* This was because there was no clear evidence that lower levels of fatness in Maori and Pacific peoples compared to Europeans with the same BMI is associated with a lower risk of obesity-associated diseases.<sup>13</sup> It can therefore be assumed that, in general, the higher rates of overweight and obesity in Maori and Pacific peoples as indicated by BMI reflect higher risks of obesity-related diseases and conditions.

#### *4.4.2 The effects of ethnic differences in obesity on life expectancy*

The higher rates of obesity in Maori and Pacific peoples are starkly reflected in life expectancy. The gap in life expectancy between Maori and Pacific peoples and other New Zealanders widened over the period 1980 to 1999. While the death rate declined steadily over the two decades for other New Zealanders, it showed little change for both Maori and Pacific peoples. The gap in life expectancy at birth between Maori and other (non-Pacific) males, for example, rose from 6.3 years in 1980 to 9.9 years in 1999.<sup>81</sup>

Most of this increase in inequality resulted from widening differentials in death rates from chronic diseases, notably cardiovascular disease, cancers, diabetes and lung diseases.<sup>81</sup> Obesity is a major factor in cardiovascular and (particularly) diabetes death rates, and makes a small contribution to cancer deaths. It is particularly disturbing that, while the death rate for other New Zealanders from cardiovascular disease is expected to fall to 2015, although more slowly than in the past, for Maori it is expected to rise.<sup>78</sup>

The high rates of obesity among Maori and Pacific peoples are extracting a heavy toll.

#### *4.4.3 Ethnic differences in type 2 diabetes and their effects*

In 1996 the probability of a Maori being diagnosed with diabetes in their lifetime was estimated at around 30%, compared to 25% for a Pacific person and 9% for a person of European ethnicity.<sup>58</sup> The great majority of these cases were type 2 diabetes. The death rate from diabetes in 1996 was estimated to be about ten times higher in Maori than non-Maori.<sup>13</sup>

### **4.5 The effects of obesity and type 2 diabetes across socio-economic groups**

The 2002/03 New Zealand Health Survey of New Zealanders aged 15 years and over reported that more than one quarter of New Zealanders living in the “most deprived” fifth of neighbourhoods were obese, compared to less than

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\*The Ministry of Health has just published (April 2006) a report using BMIs of 26 to 31.9 to define overweight and 32+ to define obesity for Maori and Pacific peoples. The report, however, compares overweight and obesity rates between Maori and non-Maori, which is less useful than reporting Pacific peoples separately, given that the non-Maori group contains both Pakeha who have lower BMIs and Pacific peoples who have higher BMIs than Maori.

15% in the “least deprived” fifth.<sup>12</sup> Another study found a clear inverse relationship between higher income and lower BMI for New Zealand females, but not males.<sup>4</sup>

A number of international studies have consistently shown that higher socio-economic status is associated with lower levels of obesity in developed countries, particularly for women. Some studies have suggested that part of the reason for this is that families from lower socio-economic groups are less active and watch far more television. They are also likely to eat more low-quality, energy-dense foods because these are less expensive.<sup>2 82</sup>

A different pattern has been found in developing countries, where obesity is a sign of affluence, while the poor have lower obesity rates because of limited access to food and public transport, and substantial engagement in physically demanding manual work.<sup>2</sup>

A New Zealand study from 1992 found that both European women and men showed the inverse relationship of increasing BMI with decreasing socio-economic status typical of developed societies. Maori, Pacific people and Asians did not, but neither did they show the pattern found in developing societies. It was suggested that non-Europeans might be in a transitional stage between developing and developed societies.<sup>83</sup>

#### **4.6 Likely future costs of trends in obesity and type 2 diabetes**

A 1997 study estimated that 2.5% of the costs to the New Zealand health sector in 1991 were attributable to obesity.<sup>84</sup> These costs covered hospital services, general practitioner consultations, pharmaceuticals, laboratory tests and ambulance services. The 2.5% underestimated the full direct costs of weight-associated disease because it included only costs for those with a BMI greater than 30. It is also at the lower end for developed countries where estimates have ranged from around 2–7% of total health care costs.<sup>2</sup>

The percentage of total health care costs attributable to weight-associated disease has probably grown since 1991, and will probably grow further, because of increasing levels of overweight and obesity in the population.<sup>85</sup>

In addition to costs to the health care system, there are also intangible costs to individuals because of the impact of obesity on their lives. Reduced employment opportunities because of limited mobility is one example. Finally there are indirect costs to the economy because of lost productivity due to obesity-related absence from work and premature death.<sup>2 84</sup>

The cost of diabetes health services in 2001/02 has been estimated at \$247 million, with large future increases expected.<sup>86</sup>

#### **4.7 Conclusion and recommendations**

The conclusions to Section 4 are summed up in the recommendations below.

FOE recommends that the Committee:

- *note that obesity brings with it an array of serious risks to the physical, psychological and social well-being of both children and adults, and can result in earlier death;*
- *note that type 2 diabetes, itself a major risk resulting from obesity, is a very serious disease that can lead to severe disability and death;*
- *note that Maori and Pacific peoples, both children and adults, have particularly high levels of both obesity and type 2 diabetes, and that this is extracting a heavy toll on their health and life expectancy;*
- *note that New Zealanders living in the most deprived neighbourhoods are much more likely to be obese than those living in the least deprived neighbourhoods;*
- *note that a conservative estimate puts the costs of obesity for the New Zealand health sector as at least 2.5% of total expenditure, with this percentage expected to grow;*
- *note that the cost of diabetes health services in 2001/02 was estimated at \$247 million, with large future increases expected;*
- *note that obesity and type 2 diabetes impose other additional costs on individuals and the community, including losses in productivity.*

## **5 The effectiveness of current obesity prevention approaches and interventions**

### **5.1 Introduction**

This submission does not attempt to review all the large number of approaches and interventions aimed at reducing obesity that are currently in place, both in New Zealand and elsewhere. Instead it considers a limited number of approaches that, in theory at least, would appear to be among the more promising. The outcomes of these approaches in terms of reducing obesity are disappointing. The implications of this are discussed in the conclusion to this section.

### **5.2 Population-level health education and information provision**

To date there have been few concerted attempts to reduce obesity at a population level through education and provision of information.<sup>49</sup> The two most notable were in the United States.

The Minnesota Heart Health Program was a major public health intervention with reduction of obesity as one of its central goals.<sup>87 88</sup> The project involved three matched pairs of communities with total populations of about 500,000. Education about cardiovascular risk reduction, including reducing dietary fat, increasing exercise and reducing body weight, was conducted through a

variety of methods in the three intervention communities over seven years. These methods included use of mass media, adult education classes, worksite and school interventions, point-of-purchase education in restaurants and supermarkets, and much more. Over the seven years there was the same upward trend in weight in both the intervention and control communities.

The Stanford Five-City Project conducted over six years adopted a similar, education-based approach to the Minnesota Heart Health Program. While average weight rose in both intervention and control cities over the course of the project, there was “some evidence that a community health education program may help reduce weight gain over time”. Nevertheless the report on the study concluded that “more effective methods must be developed if this important risk factor [weight gain] is to be favorably affected in broad populations”.<sup>89</sup>

There have been success stories in similar projects that have not targeted obesity, the most notable being the North Karelia Project. This was a major, population-wide intervention in the Finnish province of North Karelia designed to turn around the province’s very high level of cardiovascular disease, mainly by improving nutrition and reducing smoking. But despite remarkable reductions in cardiovascular disease risk factors, obesity levels in the province remained constant for women and rose slightly for men in the 30 years since the project began in 1972.<sup>2,90</sup>

To conclude, stemming the rise of obesity by population-level measures aimed at changing individual behaviours, but without accompanying environmental and societal changes, does not seem to be achievable given the evidence from well-resourced interventions in the United States.

### **5.3 Interventions designed to reduce obesity in children**

#### *5.3.1 Introduction*

A recent Cochrane Review identified 22 studies using randomised controlled trials (RCTs) or controlled clinical trials which evaluated interventions lasting at least 12 weeks and were designed to reduce obesity in children.<sup>91</sup> (Cochrane Reviews are generally regarded as the gold standard.) In terms of their impact on obesity, the outcomes of the reviewed interventions (with one or two exceptions) were very disappointing. While improvements to aspects of children’s nutrition or physical activity were often reported, very few of the studies were able to show improvements in obesity levels.

#### *5.3.2 School-based dietary interventions aimed at reducing obesity*

Only one dietary intervention to reduce obesity in children was found that met the criteria for inclusion in the Cochrane Review. In a ‘good quality’ study,<sup>91</sup> British school children were randomly assigned to an education programme focussed on reducing consumption of carbonated drinks. After 12 months the percentage of overweight and obese children in the control group increased by 7.5%, while falling by 0.2% in the group receiving the programme.<sup>92</sup> The

programme produced a modest reduction in the number of carbonated drinks consumed, which was associated with a statistically significant reduction in the number of overweight and obese children.

### *5.3.3 School-based physical activity interventions aimed at reducing obesity*

The Cochrane Review found two 'long-term' studies meeting their methodological criteria that compared children given additional physical activity in school beyond that experienced as part of the normal physical education programme. In neither case was there any clinically significant reduction in obesity measures compared to children in the normal programme after 12 months (one study) or 18 months (the other). Several 'short-term' studies also showed little or no effect on BMI from increased physical activity at school.<sup>91</sup>

### *5.3.4 Interventions aimed at reducing sedentary behaviour in children*

In a 'good quality'<sup>91</sup> study with US children, children in a school receiving the intervention programme were given 18 lessons aimed at reducing television, videotape and video game use. The intervention included encouragement to adopt a seven hour per week television viewing budget. Six months after the beginning of the programme, the average BMI at the intervention school rose by 0.29, significantly less than the 0.71 increase at the control school. The children at the intervention school also reported statistically significant decreases in reported television viewing and number of meals eaten in front of television.<sup>93</sup>

### *5.3.5 Multi-faceted, school-based interventions aimed at reducing obesity*

Given that both a dietary intervention (decreasing soft drink consumption) and a sedentary behaviour intervention (reducing television watching) showed some success, it might be thought that multi-faceted interventions that attempted to both reduce energy intake and increase energy expenditure would result in reductions in obesity. But to date this has not generally been the case, even for well-designed and well-resourced interventions. An example is the Pathways intervention with native American children, rated a 'good quality' study,<sup>91</sup> in which 1704 children in 41 schools were randomly assigned to intervention or control conditions. The intervention had four components: (1) change in dietary intake, (2) increase in physical activity, (3) a classroom curriculum focused on healthy eating and lifestyle, and (4) a family-involvement programme. Several obesity indicators including BMI were measured at the start of the intervention and after three years. None showed any significant differences between the intervention and control schools.<sup>91</sup>

A further example, also from the US and rated 'high quality',<sup>91</sup> was the Planet Health study conducted over two years involving five intervention and five control schools. The intervention concentrated on promoting physical activity, modifying diet and reducing sedentary behaviours (with a strong emphasis on decreasing television viewing). There was no significant difference in obesity outcomes between intervention and control schools for boys, and a small but

significant reduction in obesity outcomes for girls in the intervention schools. The intervention led to reduced television viewing by both boys and girls, and the analysis indicated that this was the cause of the obesity reduction in the girls.<sup>94</sup>

Several other long-term, multi-faceted have failed to find significant improvements in obesity for intervention compared with control schools,<sup>91</sup> including the 'good quality' APPLES study in England.<sup>95</sup> Five short-term studies in the Cochrane Review all failed to find significant improvements in obesity outcomes in intervention groups.<sup>91</sup>

In the US, the Task Force on Community Preventive Services recently completed a systematic review that found "insufficient evidence ... to determine the effectiveness of combination nutrition and physical activity interventions to prevent or reduce overweight and obesity in school settings because of the limited number of qualifying studies reporting noncomparable outcomes".<sup>96</sup>

The Committee may find that other submissions draw a more optimistic conclusion about the effectiveness of multi-faceted, school-based interventions to reduce overweight and obesity. In particular, the Ministry of Health has stated that such interventions "have been shown to be effective, particularly for girls".<sup>97</sup> Appendix 3 shows that this is a second- and third-hand statement based on earlier evidence than that used in the latest Cochrane Review, and is not a conclusion that can reasonably be drawn from the latest and best evidence. This point is not made to suggest that such interventions should not be tried, but to reiterate the case that they are unlikely to be effective outside the context of major changes to reduce obesity-promoting features of the environment.

### 5.3.6 *Interventions to improve diet and increase physical activity*

A recent Canadian report concluded that, based on evidence from six systematic reviews, "there is *good evidence* to support the use of school-based interventions to improve dietary behaviour". The report also found, based on evidence from four systematic reviews, that "there is *very good evidence* that school-based interventions are effective in increasing physical activity during school hours ..., [and] *fair evidence* that physical activity outside of school hours is increased". But the same report, based on evidence from six reviews of which the Cochrane Review was rated by far the best, found "*insufficient evidence* to support the recommendation of a specific strategy for the prevention of obesity in children".<sup>98</sup> So it appears we can quite readily improve particular dietary and physical activity behaviours of children, but that these improvements tend not to be reflected in reduced obesity.

### 5.3.7 *Conclusion*

The Cochrane reviewers concluded that "interventions employed to date have, largely, not impacted on weight status of children to any significant degree".<sup>91</sup> Boyd Swinburn, a leading New Zealand obesity expert now at an Australian

university, has noted that it is not surprising that school-based programmes are not generally successful in reducing the prevalence of childhood obesity when the vast majority of children's waking hours over a year are spent outside school.

The Cochrane reviewers suggested interventions intended to reduce obesity in children have had limited effect because natural instincts "to be sedentary are overwhelmingly supported by an increasingly complex socio-political environment".<sup>91</sup> We cannot, in other words, expect school-based interventions occurring within the context of our current obesogenic environment to have much impact until we have made some significant inroads into reversing the obesity-promoting features of that environment.

A number of the studies reviewed above, while having little or no impact on obesity, did show significant health-related improvements in children's behaviour, both in terms of improved nutrition and greater physical activity. These are very desirable outcomes, and FOE supports school-based initiatives aimed at improving children's nutrition, increasing their physical activity and reducing their sedentary behaviour. The key point is, however, that we must avoid concluding that these initiatives will by themselves be significant in turning around the obesity epidemic in children. To do that we must address the total environment in which children live, and in the face of which schools (and parents too) are relatively powerless.

#### **5.4 Screening for obesity and type 2 diabetes in children**

The US Preventive Services Task Force has just released its report as to whether there should be routine screening of children and adolescents for overweight and obesity. It found that "the evidence is insufficient to recommend for or against routine screening for overweight in children and adolescents as a means to prevent adverse health outcomes". This conclusion "reflects the paucity of good-quality evidence on the effectiveness of interventions for this problem in the clinical setting".<sup>99</sup> A Canadian Task Force had earlier reached the same conclusion.<sup>100</sup>

Given the evidence that focussing on prevention offers far more promise than treatment as a means of addressing the obesity epidemic, mass screening for obesity in children would not be a high priority for the use of limited resources. Nevertheless, given the health consequences of obesity, primary health providers do need to be aware of the need to assess patients for excess body weight where this is suspected, and take appropriate action when it is found.

The screening of children and adolescents for type 2 diabetes is currently a matter of concern and has been the subject of recent discussion among some health professionals. It is important that all health professionals identify obese children and screen them for diabetes and other features of the metabolic syndrome.

## 5.5 Voluntary steps taken by the food industry

*“A burger combo sometimes simply isn't enough. That's why when you buy a burger combo from KFC we will upgrade you to the EXTREME BURGER MEAL for FREE.”* (On the New Zealand KFC website<sup>101</sup> on 19 April 2006.)

The Food Industry Accord (FIA) is an initiative by a coalition of industry organisations called the Food Industry Group (FIG). The Accord was established in 2004 with the objectives of reducing obesity, improving nutrition and increasing physical activity. Its mission is: “To do all that is possible to encourage all sectors of the food industry to create commercially successful products and services that will make a positive contribution to the health of New Zealanders”.<sup>102</sup>

The FIG has listed “key achievements” of the FIA in a recent report to the Minister of Health.<sup>103</sup> Detailed comment on these “achievements” is provided in Appendix 1.

From the analysis in Appendix 1 it is clear that the net effect of the activities listed in the report as “key achievements” is much more likely to be negative rather than positive in terms of obesity prevention. Positive contributions are generally of marginal benefit. On the negative side, there is a strong focus on sponsorship of both sport and community projects by companies whose major products are among those that should be eaten only occasionally if at all. In all, 25 sponsorship programmes are listed in the report, with McDonald's and Cadbury Confectionery as the leading players. This compares with four initiatives relating to improvements to the composition of food and beverages, none of which involve changes to existing products to reduce their energy-density. No initiatives aimed at reducing the advertising and promotion of less healthy foods to children are mentioned in the report.

Sponsorship by major manufacturers of energy-dense foods aims to build their image as responsible corporate members of society, and hence to ‘normalise’ consumption of their products with the effect of increasing their purchase. This strategy is very damaging to the cause of reducing obesity. Its effects are very hard to combat.

There is no evidence in the report to suggest that the food industry is taking new steps, in response to the Accord, to changing the composition of food, or the way that food is promoted. “Key achievements” reported are typically normal commercial activities that were happening anyway. Many of them pre-date the Accord.

The lack of any real progress under the Accord confirms that it is unrealistic to expect that voluntary actions by the food industry for the public good, rather than profit, will result in substantially useful initiatives.

## **5.6 Voluntary steps taken by the advertising industry**

On 6 April 2006 the Advertising Standards Authority released its revised “Code for Advertising to Children” and “Code for Advertising Food”.<sup>104</sup> These revisions replaced codes last revised in 2001.

An analysis of the changes from the previous codes is attached (Appendix 2). This analysis shows that the changes consist almost entirely of the inclusion of additional statements to the earlier codes. There is no significant change in direction, and nothing that will have more than a very marginal effect on the way that food is currently advertised to children. As shown in Appendix 2, some fairly obvious ways to improve the protection of children by direct and explicit statements are not included. Instead there is reliance on ambiguous statements that, in practical terms, tend to be meaningless.

There are some very fine statements in the revised codes, as there were in the codes they replace. The problem, as the history of appeals to the Advertising Standards Authority Complaints Board will show, is that the Board does not read the statements in the same way as would a person fully informed about the potential impacts of food advertising on children’s health and prepared to take the steps required to reduce these impacts.

The advertising industry clearly cannot protect children from harmful advertising through its own efforts. Regulation by government is required.

## **5.7 Conclusion**

Current obesity prevention approaches undertaken in New Zealand are, in general, not effective because they do not address the underlying environmental causes of the obesity epidemic. This view is based on evidence from the “what works” literature reviewed above which finds that initiatives addressing single or a small range of obesity-related factors at the individual, school or community level have not been effective in reducing obesity.

A WHO publication draws a similar conclusion:

To date, virtually all public health interventions aimed at the control of obesity in a population have been based on an individual approach. They have generally relied on the mass media, workplace interventions, school-based programmes and curricula, skills training in a network of clubs and community centres, and community projects to reach a wide audience so as to provide information and promote behaviour change... [While such approaches] have produced impressive results in dealing with many public health problems, this is not true, however, of obesity... [There is] generally little impact on the overall average BMI of the community and a negligible effect on obesity prevalence, so that preventive strategies are obviously of great importance. A more effective strategy for dealing with the public health problem of obesity would appear to be one that goes beyond education and deals with those environmental and societal factors that induce the obesity-promoting

behaviour of individuals within a population in the first place (pp. 179-80).<sup>2</sup>

The approaches and interventions discussed above can lead to positive changes in diet and levels of physical activity, and on occasion result in some small steps in reducing the rate at which people become overweight and obese. In general such approaches have substantial merit and need to be part of the solution, but they can only make effective contributions when there is a major shift in the direction of reducing obesity-promoting features of the environment in which New Zealanders live. Otherwise their effects will be swamped by the mass of countervailing environmental and societal barriers to reducing obesity .

## 5.8 Recommendations

FOE recommends that the Committee:

- *notes that well-designed and resourced international studies aimed at reducing increases in obesity at the population level through health education and information provision have not been successful;*
- *notes that school-based interventions, including several well-designed and resourced programmes in the United States, have generally had no impact on reducing increases in childhood obesity, although in many cases they have resulted in improved nutrition and increased physical activity;*
- *notes that there is insufficient evidence of benefits on which to base a recommendation for the mass screening of children and adolescents for overweight and obesity;*
- *notes that effective voluntary actions by the food industry under the Food Industry Accord have been close to non-existent;*
- *notes that the “key achievements” of the Food Industry Accord as reported to the Minister of Health in 2005 will have had a negative net effect on reducing obesity because of the heavy emphasis on sponsorship;*
- *notes that the revised codes for advertising to children and advertising food released by the Advertising Standards Authority in April 2006 will have no more than a very marginal effect on the way that food is currently advertised to children;*
- *that current obesity prevention approaches of the types undertaken in New Zealand are, in general, not effective because they do not address the underlying environmental causes of the obesity epidemic, and have been implemented in the context of an obesogenic environment where any positive impacts have been swamped by powerful countervailing influences.*

## 6 Healthy Eating – Healthy Action

The Healthy Eating – Healthy Action (Oranga Kai – Oranga Pumau) Strategy (HEHA) was launched by Health Minister Annette King in 2003. It is a high-level framework designed to improve nutrition, increase physical activity and reduce obesity among New Zealanders. In 2004 an Implementation Plan for the strategy for the years 2004 to 2010 was published.<sup>97</sup> It detailed the multiple actions by multiple players required to achieve its goals. The philosophy behind the Plan was that it “should be looked at as a ‘jigsaw’ that, in its totality, will produce a comprehensive public health programme. But it will take time and lots of people’s efforts to put the puzzle together.”<sup>97</sup>

The HEHA Implementation Plan lists 26 “outcomes”, most of which have several “specific actions”, with 87 actions in all. It is beyond the scope of this submission to comment on the effectiveness in reducing obesity of all these actions. Those those that most relate to changing the obesogenic environment are:

- a) “Continue to monitor international regulatory and policy options for the nutrition and physical activity environment” (MoH)
- b) “Explore, and implement policy options, as appropriate, to improve the physical activity and nutrition environments in schools” (MoH and Education sector)
- c) “Investigate and analyse policy options regarding the advertising of food to children” (MoH)
- d) “Investigate options to increase the profile of healthy food choices and physical activity in media, advertising and promotions” (Industry, MoH, SPARC)
- e) “Food service industry adopts best practice preparation, cooking and serving techniques consistent with the Ministry of Health’s food and nutrition guidelines” (MoH, Industry)
- f) “Food industry replaces saturated fats with unsaturated fats in foods and reduces fat, salt and sugar content of manufactured foods [by exploring] innovative methods to enable changed formulations of commercially prepared foods [and investigating] the monitoring of change through the Manufactured Food Database (Industry, MoH)
- g) “Industry to consider innovation to provide healthy nutritious choices to consumers at competitive prices” (Industry)
- h) “Develop and implement a Walking and Cycling Strategy (MoT)
- i) “Initiate the development and implementation of a range of social marketing strategies to facilitate behavioural change supporting healthy eating, health action and healthy weight” (MoH, NGO, DHB, SPARC)

- j) “Develop the concept of a brand for HEHA that can be applied to healthier choices” (MoH).

It is fair to say that these actions show some recognition of major obesity-promoting features of the environment. But the level of action called for is completely inadequate. The only action relating to the promotion and marketing of unhealthy foods, for example, is to “investigate and analyse policy options regarding the advertising of food to children” (c).

The statements about the contributions of Industry (e), (f) and (g) make hollow reading in light of the analysis in Appendix 1.

The specific actions in the HEHA Implementation Plan are likely to have little impact in changing the obesogenic environment for the better. But this is not to say that HEHA is without value. In general the myriad outcomes and specific actions in the HEHA Implementation Plan are a necessary part of the total effort required to significantly reduce obesity. They are necessary, but not sufficient. To be sufficient they need to include some major interventions to change features of the obesogenic environment that are absent from the current Plan. These interventions are detailed in the next section.

FOE recommends that the Committee:

- *notes that the current Implementation Plan for the Healthy Eating – Healthy Action Strategy (HEHA) includes many actions that will be a necessary part of the total effort needed to significantly reduce obesity, but that it is virtually silent on the major interventions required to significantly reduce obesity-promoting features of the New Zealand environment;*
- *notes that in the absence of a reduction in the obesity-promoting features of the New Zealand environment, actions from the HEHA Implementation Plan are, based on the evidence reviewed in Section 5, unlikely to be effective in reducing the rate of growth in obesity.*

## **7 Other interventions that are required**

### **7.1 Introduction**

In Section 5 it was shown that the best efforts to date such as community-wide and school-based multi-faceted interventions have had at best a very marginal impact on reducing the rate of increase in obesity. Section 6 showed that the HEHA (Healthy Eating – Healthy Action) strategy currently being implemented in New Zealand is unlikely to do any better. In both cases the key missing ingredient has been a strong focus on changing the current ‘obesogenic environment’ in which we live to make it easier for people to make healthy choices. In particular, there is a need to change those features of the environment that make it difficult for parents to make healthy choices for their children.

This section concentrates on interventions that are not yet occurring in New Zealand, and which are crucial to bringing about a major shift in reducing obesity-promoting features of the total environment.

### *7.1.1 The issue of evidence*

It is common for decision makers to delay action until they have sufficient evidence to proceed. This is the case, quite rightly, with the introduction of new drugs, where the required level of evidence is typically from randomised controlled trials (RCTs). The drug is given to a randomly-selected treatment group, with outcomes then compared with those of a randomly-selected control group. The results of such studies give well-based evidence as to the drug's efficacy and risks. In the public health area, however, this RCT model is generally not useable. One cannot, for example, randomly select a group of adolescents to become smokers. Because RCTs offer a much better level of evidence than other studies, and these were not an option, tobacco companies claimed for years that there was no evidence that smoking was harmful.

A similar situation exists with respect to obesity. It is not feasible, for example, to randomly select one group of children to regularly watch television, and another group not to watch television at all, over the long period that would be required to find any differences in weight gain.

Most public health evidence about cause and effect is capable of different interpretations because, while relationships can often readily be demonstrated, it can be hard to tease out the direction of causality. To give an example, many studies have demonstrated that children who watch more television are more obese than those who watch less. But is it that watching more television results in greater obesity, that greater obesity results in watching more television, or that both watching more television and being more obese have a common explanation such as family socio-economic status? Or all three? Given the strong association between television viewing and obesity, and the fact that there are several well-founded hypotheses as to why watching more television might cause greater obesity, there are reasonable grounds for assuming that a causal relationship exists. But definitive answers in the absence of RCTs are very elusive, despite the best efforts of researchers. Calls for more evidence before action is taken are likely, therefore, to result in indefinite delay.

Because of the huge and growing health and financial burdens associated with obesity (section 4), waiting for more or better evidence is not an option. The 'precautionary principle' needs to be applied. Given the seriousness of the problem, if there is reasonably good evidence that something will help, and is unlikely to do harm, then immediate action must be seriously considered.

### *7.1.2 The need for interventions to impact on the whole population*

The changes required need make a difference in the daily lives of all New Zealanders rather than focussing on changing the behaviour of individuals or

groups. Population-level interventions enable the accumulation of small changes in a large number of individuals to have a large effect at the population level.<sup>1</sup>

As a WHO Consultation<sup>2</sup> has concluded:

Obesity is a public health problem and must therefore be seen from a population or community perspective. Health problems that affect the well-being of a major proportion of the population are unlikely to be effectively controlled by strategies in which the emphasis is on individuals. Public health action is based on the principle that promoting and protecting the health of the population requires an integrated approach encompassing environmental, educational, economic, technological and legislative measures, together with a health care system oriented towards the early detection and management of disease.

### *7.1.3 The recognition that some food products are unhealthy*

The most important element underlying the huge progress that has been made in reducing tobacco use has been the general acceptance that smoking is not a normal part of life, but is self-destructive and anti-social. Much the same can be said for attitudes towards drink driving. A similar change in attitudes towards unhealthy foods and drinks is required in order to halt and reverse the obesity epidemic.

The term 'unhealthy foods' is used frequently throughout this submission, and particularly in this section. Typically 'unhealthy foods' are foods or drinks that are high in fat, sugar and/or salt. They are also typically energy dense (providing a high level of energy relative to their volume and/or weight). Energy density is high for foods high in fat and/or sugar, particularly when they are also highly processed.

The development of criteria for distinguishing which particular food and drink products are unhealthy may be major exercise for a government agency, but one that will be required if a number of important initiatives aimed at changing the obesogenic environment are to be implemented.

In referring to 'unhealthy foods' it is necessary to refute the often-heard claim from the food and advertising industries among others that "there is no such thing as an unhealthy food, only unhealthy diets". The argument is that occasional consumption as a treat of any commercially available food is fine, providing that it is part of a balanced diet. In its inquiry into obesity, the House of Commons Health Committee completely dismissed this argument, stating that "it is patently apparent that certain foods are hugely calorific in relation to their weight and/or their nutritional value compared to others". The Committee gave, as an example, a Snickers Bar weighing 61 grams and with 280 calories against an apple weighing 112 grams and with 53 calories.<sup>34</sup>

Put in terms of smoking, the argument that there are no unhealthy foods would run like this. There is no evidence that people who exercise self-control and have the occasional cigarette, without making a habit of it, are harming themselves. Therefore cigarettes are not unhealthy, only smoking too many

cigarettes is unhealthy, and we should not restrict the promotion or sale of cigarettes.

What we must do is change the perception that eating unhealthy foods is a normal part of life. The need to do this underlies most of the food-related interventions listed in section 7.1.5 below. This will inevitably mean that the manufacturers and retailers of some food products will either have to transform their businesses or take huge drops in profits.

#### *7.1.4 The need for a complete rethink about food advertising and promotion*

When children grow up in a world where they are constantly exposed to the advertising of unhealthy foods they will come to accept that eating these foods is a normal part of life. As it was for smoking, it is imperative that this changes. We need to do all we can to insulate children from any form of unhealthy food promotion.

Evidence on the effect of banning the advertising and promotion of cigarettes is most instructive in considering what actions might be required in order to have a significant impact on attitudes towards unhealthy foods. A major report by the World Bank formed the “key conclusion ... that bans on advertising and promotion prove effective, but only if they are comprehensive, covering all media and all uses of brand names and logos”.<sup>105</sup> Without comprehensive bans, the industry merely shifted its advertising and promotion from banned activities, such as television advertising, to other forms of promotion, such as sponsorship. For this reason, the interventions listed in the section 7.1.5 have a strong focus on banning or restricting the promotion of unhealthy foods, particularly to children, in as many spheres as possible.

#### *7.1.5 Interventions that will make a difference*

The key interventions required to bring about a major positive shift in the obesogenic environment are:

- banning the promotion of unhealthy foods to children in as many spheres as possible (section 7.2)
- as a minimum, banning sponsorship of school-related activities and junior sport by manufacturers who have major product lines of unhealthy foods (section 7.3)
- where bans are not feasible, reducing the exposure of children to the promotion of unhealthy foods in as many spheres as possible (section 7.4)
- banning the sale in schools of unhealthy food (section 7.5)
- enabling consumers to distinguish more healthy from less healthy foods by introducing a “traffic light” system (section 7.6)
- providing commercial incentives for food manufacturers to improve the nutritional composition of foods by introducing a “traffic light” system (section 7.6)

- using the tax system and/or some alternative such as food vouchers or subsidies to make healthy foods less expensive, particularly for low income families (section 7.7)
- using the tax system to make unhealthy foods more expensive, both to reduce consumption and increase the incentive for manufacturers to change the composition of their products (section 7.7)
- increasing the opportunities for both children and adults to increase their level of physical activity as a normal part of their everyday lives (section 7.8).

#### 7.1.6 Recommendation

FOE recommends that the Committee:

- *notes that calls for further evidence before making major changes to reduce obesity-promoting features in the environment are not justifiable, and may lead to indefinite delay.*

## 7.2 Banning the advertising of unhealthy foods to children

'Unhealthy foods' have already been defined as foods or drinks that are high in fat, sugar and/or salt and that are also typically energy dense (providing a high level of energy relative to their volume and/or weight). It has also been noted that an agency will need to be given the task of developing appropriate criteria for healthy and unhealthy foods.

As was documented in section 2.9 above, there are numerous ways in which unhealthy food is promoted to children. In addition to direct advertising the list includes sponsorship, in-school marketing, free samples of food items, free gifts or tokens with food items, computer games, the internet, and mobile phones. All these are areas where we must do all we can to reduce the exposure of children to the promotion of unhealthy food. Advertising bans are discussed first. This is the intervention that, to date, has received the most attention.

### 7.2.1 The susceptibility of children to advertising techniques

A major systematic review of the international literature commissioned by the Food Standards Agency in the United Kingdom<sup>35</sup> came to the following conclusions regarding children's interactions with advertising:

- the ability for children to distinguish advertising from other programming emerges between the ages of 4 and 7 years;
- the ability to appreciate the persuasive intent of advertising emerges at about 7 or 8 years of age;
- the recognition of bias and deception in advertising emerges at about age 8 years;

- between 8 and 12 years children progressively develop the cognitive defences that enable them to respond in a more sophisticated and mature way to advertising messages.

### 7.2.2 *The effect of food advertising on children*

The same review<sup>35</sup> considered the effects of food advertising on children's food knowledge, preferences and behaviour, and found that:

- there is reasonably robust evidence that food promotion influences children's food preferences;
- there is strong evidence that food promotion influences children's food purchase-related behaviour in the direction of increasing purchase requests for food high in fat, sugar or salt.

### 7.2.3 *Advertising and the rights of children*

The UN Convention on the Rights of the Child<sup>106</sup> recognises "the right of the child to the highest attainable standard of health" (Article 24).

States that are party to the Convention have undertaken "to ensure the child such protection and care as is necessary for his or her well-being, ... and, to this end, shall take all appropriate legislative and administrative measures" (Article 3).

Parties must also "encourage the development of appropriate guidelines for the protection of the child from information and material injurious to his or her well-being (Article 17(e)), and must provide protection "against all ... forms of exploitation prejudicial to any aspects of the child's welfare" (Article 36).

Article 18 recognises that parents or legal guardians have the primary responsibility for the upbringing and development of the child, and that the best interests of the child will be their basic concern.

On the other hand, Article 13 gives children the right to freedom of expression, which includes "freedom to seek, receive and impart information and ideas of all kinds". This is interpreted by the New Zealand Advertising Standards Authority (ASA) as "the right to receive advertisements along with other information".<sup>107</sup> The ASA does, however, recognise that there are various fetters to that right, including Article 13(e).

There is substantial evidence that advertising of unhealthy food to children will detrimentally affect their attainment of optimal health, is potentially injurious, exploits children's inability to interact with advertisements in a mature way, and works against the efforts of parents to act in their children's best interests.

The advertiser's case rests on the assumption that advertising to children is information of the sort that the framers of the Convention had in mind in with Article 13. But advertising to children contains little information. Its intention is to persuade using a variety of techniques,<sup>35</sup> none of which rely on rational decision making as a result of better information. Given the strong and

consistent emphasis throughout the Convention on protection of children, it is difficult to read freedom of information for children as including the right of the child to be subject to the persuasive techniques of advertisers.

To conclude, the Convention when read as a whole should give no comfort to those who wish to advertise food to children.

#### *7.2.4 The need for parents to be given optimal support in developing healthy eating habits in their children*

The key to reducing obesity at the population level is to make healthy choices easier. Advertising to children makes it harder for parents and other caregivers to make healthy food choices for their children, and more likely that their children will reject the choices that they do make.

The position that parents find themselves in is well put by the U.S. Centre for Science in the Public Interest.<sup>108</sup>

Parental authority is undermined by wide discrepancies between what parents tell their children is healthful to eat and what marketing promotes as desirable to eat. In addition, while many parents have limited proficiency in nutrition, companies have extensive expertise in persuasive techniques (p.2).

#### *7.2.5 Recommendations*

The issues just considered – the susceptibility of children to advertising techniques, the effect of food advertising on children, the rights of children, and the need for parents to be given optimal support in developing healthy eating habits in their children – provide a justifiable basis for strong action. The advertising industry's best efforts have produced the woefully inadequate changes to the advertising codes as documented in section 5.6 and Appendix 2. Action therefore needs to be in the form of regulation by Government.

FOE recommends that the Committee:

- *recommends to Parliament that no advertisements for unhealthy foods be shown on television during the times when programmes intended for those aged 16 and under are being shown, or when a substantial proportion of the viewing audience is likely to be aged 16 and under;*
- *recommends to Parliament that no advertisements for unhealthy foods be included in magazines or any other media when a substantial proportion of those exposed to the advertisements are likely to be aged 16 and under.*

#### *7.2.6 Discussion*

Over the last 15 years a growing list of countries have banned advertising to children in some way. The most comprehensive ban is in Sweden, where no advertising of any kind can be aimed at children under 12 years old. Norway

has similar legislation, and other European countries have lesser restrictions. In Canada, Quebec has a complete ban on advertising to children younger than 13 years of age.<sup>109</sup>

Current bans on advertising of any kind to children are largely based on preventing advertisers taking advantage of children's immaturity. Because banning all advertising is outside the Terms of Reference of the Inquiry, our recommendation refers only to banning the advertising of unhealthy food. However, we believe, because of the harmful nature unhealthy food, that children older than 11 or 12 need to be protected by an advertising ban. The choice of age 16 years and under is consistent with the Private Members Bill introduced in the House of Commons by Debra Shipley in February 2005.<sup>110</sup> This Bill requires the UK Food Standards Agency to set criteria for deciding whether the content of food and drink is detrimental to the health of children aged 16 years and under, to be followed by prohibition of marketing to children any foods and drinks which contain content which is detrimental to their health.

A ban on advertising unhealthy food to children will have wide public support. Almost three-quarters (71%) of New Zealand adults surveyed by BRC Marketing and Social Research in 2005 agreed or strongly agreed that "advertisements for unhealthy food and drink products should be banned during children's television programmes".<sup>111</sup>

### *7.2.7 Conclusion*

It has been observed that banning the advertising to children of unhealthy foods is only one of a number of possible actions to counter childhood obesity, but that somehow this has become a focus and symbol among public health advocates. It is a symbol, and a very important one. It would send a strong and highly visible signal to the whole community that obesity in children is something that the Government takes very seriously. This message, together with the reduction of children's exposure to the promotion of unhealthy foods, would make a good start in reducing obesity-promoting features that constitute the obesogenic environment.

## **7.3 Sponsorship by food and beverage manufacturers**

Sponsorship has been defined as "the provision of funds and other resources to an event or activity in return for access to the exploitable commercial potential associated with that activity".<sup>112</sup> As a marketing technique it has several benefits: it can have wide reach (when a sponsored sport is televised, for example), it can sidestep any restrictions on conventional advertising, and can be cheaper than advertising.

In New Zealand, food companies with major product lines that are unhealthy are heavily involved in sponsorship (see Appendix 1). Sponsored activities include sport, community projects and various other worthy causes.

### 7.3.1 *Sponsorship of sport*

A recent New Zealand study found that sports sponsorship by sponsors whose products were classified as 'unhealthy' (gambling, alcohol and unhealthy food) was over twice as common as by sponsors whose products were classified as 'healthy'. 'Unhealthy food' sponsorship was particularly significant for junior sport.<sup>113</sup> Involvement with junior sport is a very effective marketing ploy from the sponsors' perspective, helping not only to cement their brands into children's minds, but gaining the goodwill of parents as well.

Sponsorship of adult sport can also have a negative impact on children. Children watching rugby on New Zealand television, for example, cannot but be influenced in their attitudes towards alcohol by the very visible beer company sponsorship of the sport played by their heroes.

Sponsorship of sport is particularly harmful because, by associating themselves with healthy activities, sponsors are creating the impression that their products are part of a healthy lifestyle. "As the tobacco industry knew, sports sponsorship offered an unparalleled opportunity to associate an unhealthy product with individuals who epitomised sporting excellence and robust good health."<sup>114</sup>

### 7.3.2 *Sponsorship of school-based activities*

Sponsorship of school-based activities by manufacturers of unhealthy foods is widespread in New Zealand. Fund-raising is one form that this takes, as shown by a recent survey of secondary/area schools and primary/intermediate schools from six geographical regions of New Zealand. Of the 77 primary/intermediate schools surveyed, 91% sold products to raise funds, as did 65% of 79 of secondary/area schools. Around 60% of these products were "foods likely to be high in fat or sugar".<sup>115</sup> It is inevitable, when children are asked to sell products such as confectionery on behalf of the school, that they, and often their parents, will assume that the school endorses the products.

### 7.3.3 *Sponsorship in other spheres*

As shown from the recent report on activities under the Food Industry Accord (see Appendix 1), sponsorship of good causes by the manufacturers of unhealthy foods is widespread in New Zealand, with McDonald's the most prominent player.

### 7.3.4 *Discussion*

A total ban on sponsorship of any kind by the manufacturers of unhealthy foods, such as exists with tobacco, would make a huge impact in 'denormalising' the consumption of unhealthy foods. Indeed, without this measure, the task of persuading New Zealanders that some foods are just not good for them will be very much harder. A total ban would put Ronald McDonald House, for example, out of business. Such a step could scarcely be made without replacement funding of the sort that was provided by the

Health Sponsorship Council (established under the Smoke-free Environments Act 1990) when tobacco company sponsorship was banned. It is, however, a step that needs to be considered given the insidious nature of sponsorship of good causes by the makers of unhealthy products. An excise tax on unhealthy foods could provide the source of alternative funding.

If the manufacturers of unhealthy foods wish to be public spirited, there are at least two avenues into which they could put the money currently going on brand-related sponsorship. First, they could put it into research on how to improve the nutritional quality of their products. Second, they could give it anonymously to a 'blind' fund that then distributes it to worthy causes.

### 7.3.5 Conclusion and recommendation

Sponsorship of any sort that is associated with brands of unhealthy foods is a very damaging feature of the current obesogenic environment, in particular because of the implied message that consumption of the brand's products are a proper and normal part of life. Even when the sponsorship is of adult activities, it is difficult to prevent this message being conveyed to children, especially in the case of sport. FOE would therefore like to see no sponsorship at all associated with brands of unhealthy foods. To some this might seem a big step, and so we urge that, as a minimum, such sponsorship be banned for any school or pre-school related activities, and for children's sport.

FOE recommends that the Committee:

- *recommends to Parliament that, as a minimum, sponsorship that associates brands of unhealthy foods or drinks with any activities related to schools or pre-schools, or with children's sport, be prohibited.*

## 7.4 Other means of promoting unhealthy foods to children

As mentioned in section 2.9 above, there are other a number of other ways in which unhealthy foods are promoted to children outside direct advertising and sponsorship. These include use of:

- free samples of food items
- free gifts or tokens with food items
- tie-ins with movies
- video games
- text messaging
- the internet.

One recent example is the announcement that Burger King and Microsoft are to develop video games featuring the restaurant chain's mascot.<sup>116</sup> Another is a deal between McDonald's and Microsoft to produce a branded version of the popular MSN Messenger software that will carry advertisements for special

offers at the hamburger chain's stores. MSN Messenger is widely used by children.<sup>37</sup>

To date there have been expressions of concern in the literature about the growing use of other media to advertise unhealthy food to children, but little on how to combat it. In the United Kingdom, the Department of Health set up a food and drink advertising promotion forum in 2005 to look at non-broadcast marketing of unhealthy food to children. The chairperson of the responsible sub-committee has stated that bans being planned for television advertising will be extended to all forms of media.<sup>38</sup>

It will be essential to find ways of reducing the exposure of children to the promotion of unhealthy food via these media. A ban of television advertising, for example, will inevitably lead advertisers to make greater use of other media. Much of this advertising will originate from outside New Zealand but will involve products sold in New Zealand.

The marketers of unhealthy foods will continue to find new ways of reaching children, and there will be an ongoing need to respond to these. For this reason it is important that the new Public Health Act has broad regulatory powers that enable a quick response.

One action that can be taken now is to prohibit the distribution to children of free samples of unhealthy food, or free gifts, tokens or vouchers that are associated with unhealthy food.

FOE recommends that the Committee:

- *notes the growing use by promoters of unhealthy food of new forms of media and marketing techniques to reach children;*
- *recommends to Parliament that the pending new Public Health Act includes broad regulatory powers to enable quick responses to combat any form of marketing of unhealthy food to children;*
- *recommends to Parliament that the distribution of free samples of unhealthy food, or free gifts, tokens or vouchers that are associated with unhealthy food, be prohibited to children aged 16 and under.*

## **7.5 Food sold to children in or by schools**

Unhealthy foods should not be sold to children in or by schools. First, parents have a right to expect that when their children are at school they are not exposed to unhealthy products. And second, a key part of changing children's and parents' attitudes about unhealthy foods is the complete disassociation of these foods from schools. This means that unhealthy foods should not be sold in schools or promoted in any way in or by schools.

The 2002 National Children's Nutrition Survey found that more than half (52%) of New Zealand children bought *some* of the food they consumed at school from a canteen/tuckshop.<sup>8</sup> Most of this food would not be recommended as a

regular part of children's diets. A recent survey of a stratified random sample of 200 New Zealand primary schools gives a gloomy picture of the food available for sale to children. Five out of six schools provided a food service, and, of these, 37% ran it for profit by the school, 29% contracted it out to private businesses and the remaining 34% ran it as a not-for-profit service. The most commonly available foods for sale were pies (79% of schools) and sausage rolls (55%). 'Less healthy' outnumbered 'more healthy' main choices by more than five to one. For snacks this was by more than nine to one.<sup>117</sup>

The banning from sale in schools of unhealthy foods has wide public support. A large majority (84%) of New Zealand adults surveyed by BRC Marketing and Social Research in 2005 agreed or strongly agreed that "unhealthy food and drink products should not be sold in school canteens and school vending machines".<sup>111</sup>

Bans on unhealthy foods in schools have already been instituted in a number of countries.<sup>112</sup> California has enacted legislation that limits fat and sugar content of food sold in elementary schools, requires schools to make fruit and non-fried vegetables available wherever other food is sold, and prohibits the sale of soft drinks.<sup>109</sup> Most Australian states are also moving in this direction. New South Wales, where it is now mandatory for state schools to provide food and beverage choices consistent with the *Australian Guide to Healthy Eating*, is among the leaders.<sup>118</sup>

FOE recommends that the Committee:

- *recommends to Parliament that the sale of unhealthy foods or drinks in schools and pre-schools, including in vending machines, be prohibited.*

## **7.6 Food labelling: Introducing a 'traffic light' system**

The food labels currently required on food products sold in New Zealand are not satisfactory. They do present substantial information that is relevant to a healthy, obesity-reducing diet, including total energy in kilojoules per 100 grams. But they have three major drawbacks: (1) the information is often typically presented in small, difficult-to-read print; (2) the average shopper will struggle to make sense of kilojoules per 100 grams; and (3) even the more sophisticated shopper is unlikely to do the thinking required to make sense of the information as they speed through the supermarket.

### *7.6.1 The 'traffic light' scheme in the United Kingdom*

What is needed is a simple scheme that enables shoppers to immediately identify more healthy and less healthy foods and drinks from the label. Such a scheme was strongly supported by the House of Commons Health Committee in its 2004 report on obesity.<sup>34</sup> The Committee recommended that the Government legislate to introduce a 'traffic light' system – red, amber or green symbols – that would be compulsory for all foods. The criteria, based on energy density, would identify products that should be eaten less often (red), those that were low in energy density (green), and those in between (amber).

The Committee noted that not only would such a scheme “make it far easier for consumers to make easy choices, but it will act as an incentive for the food industry to re-examine the content of their foods, to see if, for example, they could reduce fat or sugar to move their product from the ‘high’ category into the ‘medium’ category”.<sup>34</sup>

In the United Kingdom, the Food Standards Agency (FSA) has been developing a traffic-light scheme that goes some way towards meeting the House of Commons Health Committee recommendation. The scheme uses red, amber or green colour coding to indicate levels of fat, saturated fat, sugar and salt according to nutritional criteria developed by the FSA, but allows supermarkets and manufacturers to develop their own labelling “with an individual look and feel that appeals to their shoppers”.<sup>119</sup> The FSA scheme has met with serious opposition from a number of major food manufacturers and retailers.<sup>120 121</sup>

### *7.6.2 The ‘Pick the Tick’ scheme in New Zealand*

In New Zealand the National Heart Foundation’s ‘Pick the Tick’ scheme has some, but very limited, features of a ‘traffic light’ scheme. In general, approved products are lower in total fat, saturated fat, added sugar and sodium than other foods in the same category. Currently there are around 900 products from more than 60 companies that carry the Tick.<sup>122</sup>

The scheme has two serious drawbacks. First, it only informs the consumer that a product is better than comparable products. The tick appears, for example, on some products that would probably be in the red category in the ‘traffic light’ scheme such as meat pies and ice-creams. The Heart Foundation acknowledges this, noting that “while your favourite ice-cream may have the Tick, the Heart Foundation recommends you eat it no more than twice a week”.<sup>123</sup> But the shopper’s thoughts on seeing the Tick on an ice-cream product may well be that “it’s okay for me to buy this and give it to my children because it has Heart Foundation approval”.

The second drawback is that the scheme is voluntary, and many food manufacturers choose not to participate, often because of the expense involved. These drawbacks render the scheme unsuitable as a New Zealand version of the ‘traffic light’ system.

### *7.6.3 Conclusions and recommendation*

The advantage of the ‘traffic light’ scheme as supported by the House of Commons Health Committee is its simplicity. A symbol or logo coloured green, red or amber can indicate readily to consumers whether a food is suitable as a regular part of a healthy diet, should be eaten only occasionally as a treat, or somewhere in between. Such a scheme does not require that products have individual printed labels in order for it to work. A sticker could be displayed above bins containing fruit and vegetables, for example, or on the price labels that butchers use for different cuts of meat.

Given the evidence from the United Kingdom, it is unlikely that such a scheme would be universally supported by food manufacturers and retailers. Further, the New Zealand food industry, as represented by the Food Industry Group, has shown to date that it has little inclination to make any significant changes from business as usual that would reduce obesity (Section 5.5 and Appendix 1). The scheme will therefore need to be developed by a government agency and made compulsory.

FOE recommends that the Committee:

- *recommends to Parliament that a compulsory ‘traffic light’ food labelling system that indicates the extent to which individual food products should be part of a healthy diet be introduced into New Zealand.*

## **7.7 Making healthy diets more affordable**

### *7.7.1 Introduction*

Making more healthy foods and drinks as cheap as (or preferably cheaper than) less healthy alternatives is arguably the biggest change that is required. This is particularly important since obesity and type 2 diabetes are more prevalent among lower income families. Given the need to focus on lower income groups, it is important that the total cost of eating a healthy diet does not increase in absolute dollar terms.

In New Zealand we already impose excise taxes on two products that have a serious impact on public health: tobacco and alcohol. In both cases price rises resulting from tax increases have helped to reduce consumption. There is strong evidence that in New Zealand tobacco tax increases have led to immediate and permanent falls in cigarettes sold.<sup>124</sup> This is consistent with international evidence that raising taxes does significantly reduce the consumption of tobacco.<sup>105</sup> The same applies to alcohol, where there is a large body of international evidence indicating that high alcohol prices reduce consumption, particularly among heavy drinkers and the young.<sup>125</sup>

Like any other product, food purchases are influenced by price. There is evidence that lowering the price of healthy food increases its consumption,<sup>126</sup><sup>127</sup> and consumers report price as being a very important consideration when making food purchases.<sup>128</sup><sup>129</sup>

Food is different from tobacco and alcohol in that, rather than reducing total consumption of the product, we want to shift consumption from less healthy to more healthy foods. This suggests that we should find ways of both increasing the price of unhealthy foods and decreasing the price of healthy foods. There are at least three good reasons for doing both together:

- measures that increase food prices are regressive – they impact more heavily on those with lower incomes, and this impact can be negated by measures that decrease the price of healthy foods

- reductions in government revenues resulting from measures to decrease the price of healthy foods can be offset by additional revenue from measures that increase unhealthy food prices
- excise taxes on unhealthy foods or their constituents (fat and sugar) will provide a strong incentive for manufacturers to change the composition of foods so that they no longer fall in the taxed category.

### *7.7.2 Measures to increase the price of unhealthy foods*

As well as featuring strongly as components of unhealthy foods, fat and sugar provide dietary energy at very low cost.<sup>126</sup> Foods high in fat and/or sugar therefore appear promising candidates for price increases. The issues, however, are more complex than, for example, increasing the excise tax on cigarettes. This complexity largely relates to the fact that while we do not have to smoke, we do have to eat, and fats and sugar are components of many foods, not all of which are unhealthy.<sup>130</sup>

One option for a tax on unhealthy foods would be to base it on currently required information listed on food labels. Foods that were above defined thresholds for total energy, sugar, total fat, saturated fat or some combination of these per 100 grams could be subject to tax. One drawback is that not all foods (for example meat cuts and fruit and vegetables) at present contain this information. A second drawback is that some foods that are not unhealthy, perhaps because of their ratio of “good” to “bad” fats or their mix of nutrients, are likely to fall on the wrong side of any arbitrary threshold.

The criteria required to distinguish healthy from unhealthy foods will be reasonably complex. However, assuming that something like the ‘traffic light’ scheme as recommended above has been introduced, there would then be the simpler task of finding an appropriate mechanism for taxing ‘red’ foods.

### *7.7.3 Measures to make healthy foods more affordable*

Unhealthy foods can be made more expensive by placing an excise tax on them. The only across-the-board measure that would have a similar impact on reducing the price of healthy foods would be make them exempt from GST. A ‘simpler’ form of this would be to make fruit and vegetables exempt. We are aware that this would be unthinkable to those who, properly, point to the huge benefits that come from New Zealand’s no-exemptions system. But unless other means can be found, considering the unthinkable may be required.

Another approach, less direct than GST exemptions, would be to use the additional revenue from tax on unhealthy foods to increase government assistance to families with children and people on low incomes. But, while this would help off-set the cost of paying more for unhealthy foods, it would not have the benefit of reducing the cost of healthy foods.

Subsidising the purchase of healthy foods has its place. Healthy foods sold in schools need to be subsidised by Government, both as a health measure and also to compensate for any price rises resulting from banning the sale of

unhealthy food in schools (section 7.5). Another option worthy of consideration is to provide tax rebates to employers for subsidising healthy foods sold in workplace cafeterias.<sup>125</sup>

Food vouchers are another approach to making healthy foods more affordable for identified groups such as children and those on low incomes. Such a scheme, called Healthy Start, is currently being implemented in Great Britain. Under the scheme, pregnant women and parents/carers of children aged over one and under five will receive one voucher per week. Parents/carers of children aged less than one will receive two vouchers for each such child. Each voucher is worth £2.80 (between eight and nine New Zealand dollars). The vouchers can be exchanged for milk, fruit and vegetables. The scheme has started in Devon and Cornwall, and will be implemented throughout the rest of Great Britain later in 2006.<sup>131</sup>

Another option might be to find ways of working with the food industry to find a solution, perhaps by the use of some of the profits from the sale of unhealthy foods to subsidise the production of healthy foods. Experience to date with the Food Industry Accord (section 5.5 and Appendix 1), however, suggests that meaningful action from the food industry is not likely to come easily.

There is a good argument for the government to obtain more revenue from measures that increase the cost of unhealthy foods than it spends on measures to reduce the cost of healthy foods. Unhealthy foods contribute to obesity (section 2), which in turn places a huge cost burden on the health system (section 4). It is reasonable that some of this cost is recovered from the manufacturers of products that contribute to obesity.

#### *7.7.4 Conclusion and recommendation*

Altering the food price environment is a fundamental step in making it easier for all New Zealanders to make healthy food choices, particularly for those on lower incomes, a group at higher risk of obesity and type 2 diabetes. It is likely that a range of measures, both to reduce the cost of healthy food and increase that of unhealthy food, will be required.

FOE recognises that changes to the tax system have many ramifications and need expert consideration. For that reason we suggest that the Committee ask Government to commission a report from Treasury or from independent consultants on the best ways of making healthy diets affordable, and no more expensive (preferably less expensive) than unhealthy diets. Political direction would be required to ensure that the report focussed on finding solutions.

FOE recommends that the Committee:

- *recommends that Government commission a report from Treasury or from suitable consultants on the best ways of making healthy diets more affordable, and preferably less expensive than unhealthy diets;*

- *recommends that this report consider all options for reducing the cost of healthy foods and drinks, and increasing the cost of unhealthy foods and drinks, including:*
  - *excise taxes that could be imposed on unhealthy foods and drinks or on some of their constituents (fat and sugar)*
  - *use of food vouchers such as in the “Healthy Start” programme in Great Britain*
  - *subsidies of healthy foods in schools*
  - *tax incentives for employers to subsidise healthy foods in workplaces*
  - *removing GST from fruit and vegetables;*
- *recommends that this report concentrate on finding solutions that can be recommended to Government;*
- *recommends that the authors of this report be required to consult extensively, including with public health groups concerned about obesity and type 2 diabetes;*
- *notes that both increasing the price of unhealthy foods through excise taxes and enabling consumers to easily identify unhealthy foods when shopping (the ‘traffic light’ system) will put pressure on food manufacturers to reduce the fat and sugar content and energy density of their products.*

## **7.8 Environmental changes to make active living easier**

The Committee will doubtless receive valuable submissions from those concerned about levels of physical fitness in New Zealand that will recommend initiatives that can improve these levels. Our submission is restricted to supporting the case for changes to the physical environment that will make it easier for people, and particularly children, to be more physically active as part of their everyday lives.

Even more than for many adults, most children are not going to engage in additional physical activity because they are told it is good for them. They will do so because it is fun, or because it is part of their everyday life. For some children, particularly those who find themselves good at sports, the fun might suffice. But participation rates in sport may be difficult to increase given the growing number of recreation alternatives. For this reason it is imperative we provide children with an environment in which a higher level of physical activity is normal, and sometimes unavoidable.

### *7.8.1 Physical activity as part of the lives of New Zealand children*

In the 2002 National Children’s Nutrition Survey, walking at least 15 minutes a day was reported for 56% of children aged 5 to 6 years, rising to 70% for children aged 11 to 14 years. On the other hand, the younger children were

more likely to participate in active games (75%) than the older children (45%). It is disturbing that 44% of younger and 30% of older children report walking less than 15 minutes per day.

The proportion of girls who walked, biked, skated or scooted to or from school on at least six occasions during the week of the survey increased from 25% for those aged 5 to 6 years to 40% for those aged 11 to 14 years. Boys also showed an increase with age – from 34% to 44%. Of interest is the higher proportion of boys than girls who reported active travel to and from school. One could speculate that this was largely the result of greater parental concerns about the safety of girls.

It was noted above (section 2.11) that New Zealand children and adolescents appear to be becoming less active as measured on a number of dimensions. Also noted (section 2.12) was that during the 1990s cycling declined markedly as a means of transport by children, while during the same period the number of car trips driving children to school doubled.

### *7.8.2 Creating a more activity-promoting environment*

The best way to bring about population-wide improvements in obesity levels through increased physical activity is to make healthy choices easier. Two approaches would seem to be particularly helpful in creating a more activity-promoting environment for children: making it easier for them to walk, cycle or skate to school, and providing safe and inviting places for active play in their home neighbourhoods. For all New Zealanders, urban planning and transport policies that encourage walking or cycling and discourage car use will help create an environment in which greater physical activity is normal and less avoidable.

### *7.8.3 Recommendation*

FOE recommends that the Committee:

- *supports initiatives that make it easier for New Zealanders to increase their level of physical activity as part of their everyday life, including:*
  - *development of a regulatory framework that allows the Ministry of Health to have substantive input into regulations relating to urban planning;*
  - *development of regulations that specify minimum requirements relating to the provision of play areas, parks, footpaths, cycleways and walkways in urban areas, including ways of enhancing personal safety when using these.*

## **8 Policy and legislative mechanisms to give effect to the Inquiry's findings**

We understand that in 2005 Cabinet considered a paper on provisions relating to non-communicable diseases (which presumably included obesity and type 2 diabetes) for possible inclusion in the Public Health Bill. We also understand that a follow-up paper is expected to go to Cabinet around the middle of this year.

We are strongly supportive of addressing non-communicable, life-style diseases in the Public Health Bill, particularly since these diseases are now clearly the major threat to public health.

A number of recommendations have been made in this submission that will require a regulatory framework, and doubtless there will be a number of other submissions for which this is also the case. The Public Health Bill would seem to be the ideal vehicle for providing this regulatory framework.

We also believe that it is unlikely that the proposals going to Cabinet will be sufficiently comprehensive. It appears sensible that further consideration by Cabinet of proposals relating to non-communicable diseases be postponed until after the Committee's report has been considered by Parliament. We would also hope that, following consideration of the Committee's report, there would be a direction from Government for a redrafting of the current proposals.

FOE recommends that the Committee:

- *requests that Cabinet delays further consideration of provisions in the Public Health Bill relating to non-communicable diseases until after the Committee's report has been considered by Parliament.*

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## Appendix 1

### “Key Achievements” of the Food Industry Accord

The Food Industry Accord (FIA) was established by New Zealand’s Food Industry Group (FIG) with the objectives of reducing obesity, improving nutrition and increasing physical activity.<sup>102</sup> The FIG has recently reported to the Minister Health on “key achievements” of the FIA.<sup>103</sup> This appendix considers the extent to which the “key achievements” are in fact steps that will help in reducing obesity.

#### Composition of food and beverages

Four examples of “numerous initiatives to reduce the level of salt, sugar and saturated fat in manufactured foods” are given:

- Griffins Food Limited has started to produce ten new biscuits/cookies and crackers choices that contain less than 10% total fat, are low in saturated fat, and are high in fibre;
- McDonald’s has reduced the saturated fat content of fried food by about 50% by replacing beef tallow with vegetable oil;
- McDonald’s has introduced herb bread ‘fold-over’ sandwiches as a low fat alternative to burgers;
- McDonald’s has added new drink options to “Happy Meals” for children including water, orange juice and milk, and has introduced bags of preserved fresh sliced apple as alternative to fries for children.

*Comment: These are steps in the right direction, but they are very small steps. None relate to the modification of current products to reduce their energy content. Replacing beef tallow with vegetable oil will improve nutrition (providing the vegetable oil is not high in saturated fat), but will have no significant impact on total energy. And how many children will choose “bags of preserved fresh sliced apple” rather than fried chips in their “Happy Meals”?*

#### Portion size

Cadbury Confectionery “has introduced treat sized packs for chocolate containing smaller bars so consumers can ration their intake”.

*Comment: This merely adds to the range of Cadbury products and is unlikely to reduce chocolate consumption. Recently a major supermarket in Wellington was selling larger blocks of Cadbury chocolate for a lower price than smaller blocks. While shopping with the intention of buying small, one of the authors of this submission returned home with the larger but cheaper block, all of which was consumed that evening. To reduce consumption,*

*smaller blocks would have to be effectively promoted and price-competitive, and this is not happening.*

## **Food Labelling**

Three company initiatives are listed:

- McDonald's "has voluntarily introduced significantly more information on its packaging"
- McDonald's is exploring how to present information on the nutritional constituents of its food provided on its packaging in a way that is more meaningful to its customers
- Progressive Enterprises is working with the National Heart Foundation to apply "Pick the Tick" nutrition criteria to more of their products.

*Comment: With respect to the McDonald's initiatives, nutritional information would be much more useful if seen before the product was purchased (on the menu board, for example), rather than after, on the packaging.*

## **Advertising/Marketing**

Two examples appear under this heading:

- Coca-Cola has committed to not selling full sugar carbonated soft drinks to primary schools (vending machines and tuck shops);
- Progress Enterprises Ltd will introduce into its supermarkets a new brand of products which "are managed by Progressive Enterprises from gate to plate ensuring the nutritional and quality attributes of the product".

*Comment: Both these examples relate to marketing, not advertising. No examples are given of companies deciding to reduce advertising of energy-dense products. And the Coca-Cola initiative dates from January 2004 and so pre-dates the Accord.*

## **Sponsorship of sport**

The report lists 13 initiatives under this heading, by Cadbury's Mother Earth, Cadbury Confectionery, Coca-Cola and McDonald's.

*Comment: First, It is noted that the initiatives under this heading greatly outnumber those under the headings listed above. Second, encouraging greater participation in sport is one of the less effective ways of encouraging greater levels of physical activity at a population level. Finally, sponsorship by companies is a promotional activity, motivated by the desire to build positive associations among consumers with the brand. The leading products of the sponsoring companies – those that first spring to mind in association with the brands – are energy dense.*

## **Community support**

Twelve initiatives are listed under this heading. Eight are initiatives by McDonald's and the other four by Cadbury Confectionery. The only one of the 12 that appears to have any association with reducing obesity is "Cure Kids" (supported by Cadbury) which includes research on obesity among its activities.

*Comment: Among the initiatives listed is the sponsorship by Ronald McDonald House of a mobile dental surgery in Northland. This is a programme whereby a major promoter and retailer of soft drinks, one of the main causes of dental caries, gains promotional exposure through sponsorship of the treatment of dental caries in children.*

*While many of these sponsorships provide community benefits, these have to be weighed against the associated promotion, even if indirect, of major brands of unhealthy foods. In terms of obesity prevention the outcome of these initiatives is entirely negative.*

## **Social marketing**

Two initiatives are listed:

- Coca-Cola has widely distributed a brochure called "Activity, Balance, Choice";
- Progressive Enterprises Ltd launched in 2004 a healthy eating programme for shoppers at Foodtown and Woolworths supermarkets called *Eating Well*.

*Comment: The Coca-Cola initiative dates back to at least December 2003 and so pre-dates the Accord. The Progressive Enterprises initiative reads much more like product promotion than disinterested advice on healthy eating.*

## **Public awareness**

"Progressive Enterprises Ltd is developing Health and Wellness sections in all flagship Foodtown and Woolworths stores featuring an array of products for people with food intolerances, organic foods, weight management products and dietary supplements."

*Comment: Again, this is product promotion rather than providing health-related information to the public as the heading "public awareness" suggests.*

## **Willie Munchright**

According to the report, members of the FIA "developed and are now broadcasting unbranded brief television programs [sic], during prime time for younger viewers, that highlight the importance of healthy eating and healthy physical activity. TV2 has devoted airtime to the value of \$1 million and that has been supplemented by McDonalds."

## **Collaboration on Counties Manukau “Let’s Beat Diabetes” programme**

“Members of the Accord are working on a joint pilot initiative with the Counties Manukau District Health Board in its ground-breaking “Let’s Beat Diabetes” program [sic].”

## **Initiation of the review of advertising codes**

According to the FIA, “Industry’s key role in the management of the self-regulatory advertising environment has meant it has been able to initiate a review of the children’s and food Codes”.

*Comment: The outcome of this review of very disappointing (see Section 5.6 and Appendix 2).*

## **Joint initiative between Coca-Cola and McDonald’s**

“A joint initiative between Coca-cola and McDonalds to offer sugar free drinks as the default option at all McDonalds restaurants, is being trialled in the Counties Manukau region.”

## **The Year Ahead**

The activities and objectives for the Food Industry Group for 2005/06 listed in the report are best described as “more of the same”. No new initiatives are listed.

## **Conclusion**

The net effect of the activities listed above is much more likely to be negative rather than positive in terms of obesity prevention. Positive contributions are generally negligible. On the negative side, there is a strong focus on sponsorship of both sport and community projects by companies whose major products are among those that should be eaten only occasionally. In all, 25 sponsorship programmes are listed in the report, with McDonald’s and Cadbury Confectionery the leading players. This is against four initiatives relating to improvements to the composition of food and beverages, none of which involve changes to existing products to reduce their energy density. No initiatives aimed at reducing the advertising and promotion of less healthy foods to children are mentioned in the report.

Sponsorship by major manufacturers of energy-dense foods aims to build their image as responsible corporate members of society, and hence to ‘normalise’ consumption of their products with the effect of increasing their purchase. This strategy is very damaging to the cause of reducing obesity. Its effects are very hard to combat.

There is no evidence in the report to suggest that the food industry is taking new steps, in response to the Accord, to change the composition of food, or the way that food is promoted. Activities reported are typically normal

commercial activities that were happening anyway. Many of them pre-date the Accord.

## Appendix 2

### Analysis of changes to the Advertising Standards Authority codes

On 6 April 2006 the Advertising Standards Authority (ASA) released two revised codes, the “Code for Advertising to Children” and “Code for Advertising Food”.<sup>104</sup> These revisions replaced codes last revised in 2001.

The changes in the revised codes consist almost entirely of the inclusion of additional statements to the earlier codes. The changes that might relate to reducing childhood obesity are listed below, together with comment about their likely contribution to this.

#### Additions to the Code for Advertising to Children

“Advertisements should not undermine the role of parents in educating children to be healthy and socially responsible individuals.”

*Comment: In FOE’s view all advertising of unhealthy food seen by children undermines parents’ efforts to develop healthy eating habits in their children, but other parts of the codes make it clear that this will not be the interpretation used by the ASA.*

“Persons, characters or groups who have achieved particular celebrity status with children should not be used in advertisements to promote food in such a way so as to undermine a healthy diet taking into account Food and Nutrition Guidelines for children.”

*Comment: This all depends on interpretation. The executive director of the ASA is reported as saying that this does not “automatically rule out Sarah Ulmer continuing to advertise McDonalds”.<sup>132</sup> But it is naive to suggest that McDonald’s use Sarah Ulmer only to get people to eat more salads. Merely by her association with the company she is promoting Brand McDonald’s. Any encouragement for children to eat more at McDonald’s undermines efforts to improve children’s diets.*

“Advertisements should not be directed at [our italics] younger children who may have a lack of ability to comprehend the purpose of advertising and differentiate between it and non-advertising messages”.

*Comment: Advertisements should not be seen by younger children. It is irrelevant, in terms of reducing childhood obesity, who the advertisements are directed at.*

“Care should be taken to ensure advertisements do not mislead as to the nutritive value of any food. Foods high in sugar, fat and/or salt, especially

those marketed to and/or favoured by children, should not be portrayed in any way that suggests they are beneficial to health.”

*Comment: This will have little impact because advertisements to children focus on fun and “cool”, not on health benefits.*

“Care should be taken with advertisements promoting a premium or loyalty/continuity programme to ensure that inappropriate purchase or excessive consumption was not a likely outcome.”

*Comment: What is the point of such programmes if not to encourage additional consumption? Such programmes should not be permitted for unhealthy foods.*

### **Additions to the Code for Advertising Food**

“Advertisements should not undermine the Healthy Eating, Health Action (HEHA) policy of Government, the Ministry of Health ‘Food and Nutrition Guidelines’ nor the health and well being of individuals. The key applicable messages in the HEHA policy are the need for people to eat a variety of nutritious foods, less fatty, salty and sugary foods and more vegetables and fruits.”

*Comment: It is hard to see how advertising foods high in fat, salt or sugar, which can only be for the purpose of encouraging greater consumption, does not undermine HEHA when a key population message is that we should eat less fatty, salty and sugary foods.<sup>133</sup> If this interpretation is correct then the ASA is opposed any advertising of foods high in fat, salt or sugar to adults as well as children. But if this were the case, why do they not make a plain statement to this effect in the code? FOE believes that this is not the case, and that the reference to HEHA is therefore virtually meaningless.*

”Advertisements for treat foods [defined as ‘food high in fat, salt or sugar and intended for occasional treats’] directed at children should not actively encourage children to eat or drink them inappropriately or in excess.”

*Comment: Why is the word “actively” included? Advertising is all about encouraging purchases in indirect ways. A wording such as “Advertisements shall not have the effect of encouraging ...” would have some meaning.*

“Advertisements for treat food, snacks or fast food should not encourage children to consume them in substitution for a main meal on a regular basis.”

*Comment: Again, to be effective the wording would need to be “Advertisements ... should not have the effect of encouraging ...” The more that children see advertisements for fast food (assuming that the advertising is achieving the client’s purpose), the more they will want to eat it, and the more that fast food will be substituted for a main meal.*

“Care should be taken to ensure advertisements do not mislead as to the nutritive value of any food. Foods high in sugar, fat and/or salt, especially

those marketed to and/or favoured by children, should not be portrayed in any way that suggests they are beneficial to health.”

*Comment: As already mentioned, advertisers to children do not need to, and in practice do not, appeal to the health benefits of food. Advertisers know that children are not interested in health benefits. The addition of this statement is therefore irrelevant in terms of reducing childhood obesity.*

## **Conclusion**

There are some very fine statements in the revised codes, as there were in the codes they replace. The problem, as the history of appeals to the Advertising Standards Authority Complaints Board will show, is that the Board does not read the statements in the same way as would a person fully informed about the potential impacts of food advertising on children’s health and prepared to take the steps required to reduce these impacts. This is because the wording throughout is carefully ambiguous, when what is required are statements such the following:

“Every attempt should be made to ensure that advertisements for foods high in fats, sugar and/or salt are not seen by children, with such advertisements not shown on occasions when it can be expected that children are generally present, including during the hours that children generally watch television”.

The advertising industry clearly cannot protect children from harmful advertising through its own efforts. Regulation by government is required.

## Appendix 3

### A history of some statements about multi-faceted, school-based obesity interventions

The Ministry of Health (MoH) has recently claimed in its Implementation Plan for Healthy Eating – Health Action that “Multi-faceted school-based interventions to reduce obesity and overweight in schoolchildren, have been shown to be effective, particularly for girls (p36).”<sup>97</sup> This statement is outdated and cannot reasonably be supported.

The MoH cites two references for this statement. The first is a 2003 Health Development Agency (HDA) publication from the United Kingdom.<sup>134</sup> This HDA paper relies entirely on a 2002 paper from the NHS Centre for Reviews and Dissemination, also in the United Kingdom, to conclude that “There is evidence to support the use of multi-faceted school-based interventions to reduce obesity in schoolchildren, particularly girls”. The NHS conclusion was slightly different: “There is some evidence to suggest that multi-faceted interventions may help to reduce obesity in school children, particularly girls”.<sup>135</sup>

The second reference cited by the MoH is the NHS paper.

The progression has therefore gone from first hand (*suggests may help*):

- “There is some evidence to suggest that multi-faceted interventions may help to reduce obesity in school children, particularly girls” (NHS)

to third hand (*does*):

- “Multi-faceted school-based interventions to reduce obesity and overweight in schoolchildren, have been shown to be effective, particularly for girls” (MoH).

As it turns out, the NHS conclusion itself is now outdated. It was based on five studies, four of which were included in the most recent Cochrane Review,<sup>91</sup> while the fifth (De Wolfe, 1984) was of poor quality. In particular it did not include the Pathways intervention with native American children, a good quality study that failed to find significant differences between intervention and control schools on obesity measures after three years.<sup>91</sup>

The NHS conclusion, if based on the latest Cochrane Review, would be best amended to: There is some, but mixed, evidence to suggest that multi-faceted interventions may help to reduce obesity in school children, particularly girls.