

Advertising of Food and Beverages to Children

Position of Dietitians of Canada

DECEMBER 2010

Executive Summary

Dietitians are alarmed by the poor quality of children's diets and the increasing trend in childhood obesity and the immediate and long-term impact these conditions have on children's growth, development and overall health. No single approach will improve the eating habits of children and reverse the obesity trend - the problems are complex and multi-dimensional and solutions must address prevention; early identification of problems through appropriate, sensitive weight monitoring; and treatment.

Dietitians of Canada's (DC) position paper focuses on one component of this complex issue - mitigating the impact of advertisements for foods and beverages of low nutritional quality to children. While more research is needed to better understand the relationships among TV viewing, sedentary behaviour, eating behaviour, and weight gain, it is clear that advertising foods and beverages of low nutrient quality runs counter to health promotion, which aims to 'make the healthy choice the easy choice'.

In Canada, both existing legislation and an industry self-regulatory system apply to all advertising, including advertising to children. Advertisements must be pre-cleared to ensure they are consistent with the regulations in the Food and Drugs Act and the Canadian Food Inspection Agency's Guide to Food Labelling and Advertising. The content of advertisements to children must be approved by Advertising Standards Canada's (ASC) Children's Clearance Committee. The Canadian Broadcast Standards Council and ASC are the two industry self-regulatory groups that manage the two sets of voluntary advertising codes: the Canadian Code of Advertising Standards and the Broadcast Code for Advertising to Children. The advertising standards only apply to advertising that originates in Canada. In 2007, a voluntary initiative comprised of 16 food companies (now 19 companies) and called the Canadian Children's Food and Beverage Advertising Initiative was announced. Compliance as reported through annual audits (2009, 2010) has been high and the core principles have been expanded to include other media besides TV, radio, print and internet. Although the

voluntary industry initiative addresses about 95% of food and beverage ads targeted to children, there is no consistency across similar products in the criteria used to assess 'better-for-you' products. The self-regulatory system applies only to children's programs, yet the Federal Trade Commission in the U.S. found that much of children's exposure to food and beverage advertising is coming from prime time and non-children's programming.

Because young children lack the ability to critically assess advertising messages and to understand their persuasive intent, DC calls for an integrated, multi-sectoral approach to reduce the negative impact of food and beverage advertising on children. Furthermore, the current system of self-regulation of advertising to children, although a starting point, is not sufficient. DC recommends that consistent, science-based standards for criteria of healthy and less healthy foods and beverages be established and that all food companies adopt these standards within a self-regulatory framework. Restrictions on advertising to children must apply to all advertising and all settings where children normally gather. In addition, within an improved policy framework, DC calls for advertising controls that specify enforcement mechanisms and a monitoring system to ensure compliance. If there is not significant progress made to comply with the new voluntary standards within a 2-3 year period, DC recommends government regulation to align advertising practices with the established standard.

In the short term, it is important to focus efforts on reaching consensus among health professionals, industry, consumers and government on a definition of "healthy foods and beverages". The federal government must play a lead role in this process.

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Introduction

Dietitians of Canada (DC) is the national professional

association representing almost 6000 dietitians who are recognized food and nutrition health professionals serving the public as educators, policy makers, researchers and managers, and working in a variety of sectors including health care, industry, academia, government and non-government organizations. We support and advance ethical, evidencebased, best practice in dietetics and the profession's unique body of knowledge of food and nutrition. Promotion and support for the healthy growth and development of Canadian children through positive eating habits is one of DC's priorities. As a profession we are alarmed by the increasing trend in childhood obesity and the immediate and longer term impact this has on children's health. Clearly, no single approach will reverse this trend – the problems are complex and multidimensional and solutions must address prevention, early identification of problems through appropriate, sensitive weight monitoring, and treatment.

This position paper focuses on one component of this complex issue – mitigating the impact of advertisements for foods and beverages of low nutritional quality to children. The evidence indicates that these advertising practices play an important role in shaping children's food and beverage choices, preferences, dietary patterns, food-related attitudes, beliefs, values, behaviours and health. Because young children lack the ability to critically assess advertising messages and to understand their persuasive intent (Institute of Medicine, 2006), this position paper calls for an integrated, multi-sectoral approach to reduce the negative impact of food and beverage advertising on children as a component of children's rights to adequate, safe and nutritious foods. Canada's Health Ministers agree that one strategy for curbing childhood obesity should include the "protection of children from the marketing of foods and beverages high in fat, sugar, and/or sodium" (Public Health Agency of Canada, 2010).

It is imperative that dietitians play a major role in the discussion of this issue, since we are the most trusted source of nutrition information in Canada. The results of the 2009 Omnibus Survey for DC showed that 93% of respondents rated dietitians/nutritionists as credible or very credible sources. The "Tracking Nutrition Trends" survey conducted annually by the Canadian Council on Food and Nutrition found that "82% of Canadians believe dietitians are the most credible source of nutrition information" (CCFN, 2008). As trusted sources of nutrition information and advocates for the healthy growth and development of Canadian children, we must be key players in the discussion of environmental factors influencing the increasing prevalence of overweight and obesity among children. Clearly, the role that advertising has on eating habits and food choices is an important concern for dietitians.

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I. Background and Context

A. The Problem in Canada

Data collected from the Canadian Community Health Survey show that the rate of overweight and obesity among children is 26% (Shields, 2005). Partly in response to these data, the Standing Committee on Health released a report in March of 2007 entitled "Healthy Weights for Healthy Kids", calling childhood obesity an 'epidemic' in Canada. Overweight and obese children¹ are not experiencing healthy growth and development, which includes establishing healthy food and physical activity patterns that they will carry into their adulthood years.

We know that the quality of children's diets in Canada is often poor, and food intakes don't meet the recommendations in Eating Well with Canada's Food Guide. In their study of Alberta children aged six to 10 years, Ball, Marshall and McCargar (2005) showed that average macronutrient intakes were within the recommended ranges, but when compared to the Food Guide, average daily intakes of vegetables and fruits. and meats and alternatives, were too low.

Similarly, Veuglers, Fitzgerald and Johnson (2005) assessed the dietary intakes of 5,200 grade five students in 282 Nova Scotia schools, and found high proportions of the children did not meet the recommended number of servings of milk and milk products (42.3%), vegetables and fruit (49.9%), grain products (54.4%), and meat and alternatives (73.7%).

Hanning, Woodruff, Lambraki, Jessup, Driezen and Murphy (2007) surveyed an older group of students in grades six through eight in 15 Ontario schools (n=661), using a webbased tool. When the food intakes of participants were compared to recommendations in Canada's Food Guide to Healthy Eating (in use at the time of the survey) only the recommended intakes of meats and alternatives were met; there were too few servings in the other food groups.

According to a recent fitness analysis of Canadian children and youth, aerobic and musculoskeletal ability has significantly and meaningfully declined since 1981 (Tremblay, Sheilds, Laviolette, Craig, Janssen & Gorber, 2010). Overweight and obese boys and girls often have poor aerobic fitness compared to normal weight children, which means they have difficulty meeting recommendations for physical activity (Ball et al., 2005). Children aged six to 10 years at risk of overweight perceive they are less accepted by their peers compared to children of normal body weight (Ball et al., 2005).

Thus, we have evidence across various ages and provinces that children in Canada are not meeting dietary and physical activity recommendations at the same time that we have a childhood obesity 'epidemic'. Overweight children among Aboriginal and other population groups are now developing type 2 diabetes and showing early signs of risk factors for heart disease. Overweight children may become overweight adults, with the potential for an enormous health care burden and serious quality of life issues. The influences on children's food preferences and choices need to be identified so that appropriate interventions can be developed to promote the optimum growth and development of our children.

B. The Definitions of Marketing and Advertising

The terms "marketing" and "advertising" appear to be used somewhat interchangeably in studies examining the factors influencing the food preferences, choices and health of children, and also in some of the major reports on this topic. However, to be accurate, "marketing" is a broader concept and "advertising" is the promotional component of marketing. The Institute of Medicine's (IOM) 2006 report entitled

An estimated 25% of energy intakes came from the "other" food group and the authors suggest that "the high consumption of 'other' foods, at the expense of nutrient-dense food groups, may ultimately be contributing to the increased weights in childhood and adolescence" (p.12).

For the purposes of this position paper, children are defined as those aged 12 and under.

"Food Marketing to Children and Youth: Threat or Opportunity?" provides the following definition of marketing:

"Marketing involves conducting research, defining the target market, analyzing the competition, and implementing the basic processes that constitute the marketing mix..." (p.26).

Marketing is sometimes referred to as the '4 p's': product, place, price, promotion. In contrast, advertising "brings a product to the attention of consumers and may be delivered through a variety of media channels, such as television, radio, print, billboards, personal contact, and the Internet" (IOM, 2006, p.26)

The Chronic Disease Prevention Alliance of Canada (CDPAC) convened a Policy Consensus Forum on Obesity and the Impact of Marketing to Children, and in the policy consensus statement noted that "advertising is but one component of marketing. Today's marketing is much more.... including but not limited to: pricing, product placement, merchandising; labeling; branding; packaging; in-store displays; online advergames; branded toys and clothing; sponsorship; character creation and celebrity endorsements..." (CDPAC Policy Consensus Statement March 28, 2008).

This position paper will use the term 'advertising' except where it is used interchangeably with the term 'marketing' in published documents.

"Advertisements aimed at children have the potential capacity to influence a variety of eating attitudes and behaviors including food preference, food choice and purchasing behaviour."

C. How is Food Advertising Linked to **Childhood Obesity?**

A strong, positive association between screen time and weight gain has been observed in children (Kaiser Family Foundation, 2004), however the manner in which screen time contributes to increased adiposity is not yet clear. Some hypothesize that increased sedentary activity at the expense of exercise and other physical activity is to blame, while others suggest that there may be a positive correlation between eating and screen

time that leads to increased snacking. Foods and beverages that are used for snacks are often energy-dense and of low nutrient quality.

Researchers at the Canadian Institute for Health Information (2009) did an analysis of data from the 2004 Canadian Community Health Survey, and examined physical activity levels, fruit and vegetable consumption, screen time, and weight status for children and youth aged 6 to 17 years. Levels of physical activity and fruit and vegetable consumption did not differ by weight category for children or youth, with two exceptions. Overweight girls reported more physical activity than non-overweight girls, and were significantly less likely to consume five or more servings of fruit and vegetables per day than non-overweight girls (12-17 yr olds only). However, there were significant differences across weight-status groups for children and youth for screen time, with overweight groups likely to engage in longer screen-time activity. This research suggests that when children and youth have more screen time, and this is not 'offset' by more physical activity or a better quality diet, then they are more likely to be overweight.

Advertisements aimed at children have the potential capacity to influence a variety of eating attitudes and behaviors including food preference, food choice and purchasing behaviour. Direct correlations between ad exposure and food preferences have now been observed in several studies at both the brand (e.g., one fast food restaurant versus another) and category (e.g., fast food versus vegetables) levels. Studies using rigorous experimental designs have demonstrated that children shown food ads will choose the advertised products at significantly higher rates compared to children who have not seen the ads (Coon & Tucker, 2002). An Australian study found an association between the amount of TV viewing and positive attitudes towards, and higher intakes of 'unhealthy' foods (Dixon, Scully, Wakefield, White & Crawford, 2007).

If food ads do indeed influence children's intakes, this is troubling. Not only are children exposed to a significant number of food ads annually, but the variety of advertising vehicles used by industry to target children suggests that advertisers have better access to children's preferences than ever before. Furthermore, advertisers have already pinpointed children as an important target audience because of their purchasing power and their ability to influence household expenditures through requests to their parents.

Advertisers use a medley of strategies for targeting their food products to children. These include, but are not limited to, the use of action sequences, advergames, appeals of all types (fun, action, taste, nutrition, etc), animation, celebrities, characters, colours, competitions, promotions and giveaways, sound effects and fun voices, spokespersons, sports figures, and references to popular movies and television shows. Further, the food industry has started changing the properties of the food products themselves to better appeal to children. For example, novel shapes, colours, and flavours clearly indicate to children which products have been directed at them (Elliott, 2008).

Food companies have also recognized the potential benefits of fostering brand loyalty early on, in an attempt to create lifelong consumers of their products. To this end, advertisers targeting young children in particular will often not attempt to promote individual products in their ads, and instead will focus on promoting brand recognition and creating a link between the brand and pleasant feelings (Connor, 2006).

While more research is needed to better understand the relationships among TV viewing, sedentary behaviour, eating behaviour, and weight gain, it is clear that advertising snacks of low nutrient quality runs counter to nutrition promotion, which aims to 'make the healthy choice the easy choice'.

Definitive studies showing a causal relationship between exposure to advertisements for 'unhealthy' foods and beverages and weight gain in children would be impossible to design, and certainly would be unethical to conduct. Therefore, the best evidence is limited to the effect of advertising on food preferences and choices. Given that the majority of advertisements are for highly processed foods and fast-food restaurants, it seems reasonable to intervene to promote healthier choices.

D. Scope of this Position Paper

Most of the research has focused on the extent to which children are exposed to advertisements for food and beverages shown on television, especially during programming designed to appeal to young children. More recent studies are beginning to investigate advertisements in other venues, such as advergaming on the internet and magazines written for children. Little research has examined food and beverage

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advertising to children in school environments, day care centres, theatres, and other settings, and this is an important limitation. However, studies show that television is still the main advertising media used to reach children.

A second important limitation to interpreting the research is the lack of consensus on a definition of "healthy" foods and beverages. The nutrient profiles for "healthy" and "less healthy" products developed by the food industry for voluntary standards have been criticized by the health sector. However, there is no consensus among health professionals, industry, consumers and government on a definition of "healthy foods and beverages" or standardized criteria for categorizing foods as "healthy" and "less healthy".

This position paper will highlight the advertising standards put in place in Canada as well as policy options. While it would be ideal to focus the paper on Canadian research, data describing the extent of advertising to children and the content of that advertising are limited; nonetheless, we can draw from the research and experience in other jurisdictions.

An evidence-based approach is used to summarize the scientific research, well-designed reviews, grey literature and interviews with key informants/stakeholders, and to make recommendations. According to Sackett, Rosenberg, Gray, Haynes and Richardson (1996), this approach uses the best available studies with the acknowledgement that some questions cannot be answered by randomized clinical trials, nor can we wait for definitive studies to be conducted. The authors also clearly define evidence-based approaches as being the *combination* of external evidence (published studies) and practice-based expertise or clinical judgment. They emphasize that "external clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies..., and if so, how it should be integrated into a [clinical] decision" (p.71). In other words, external evidence informs us of the gaps in research; we then need to weigh the best available evidence in light of the severity of the problem and decide upon the best action (if any) to take.

II. The Impact of Advertising on Children

A. What is the Extent of Food and Beverage **Advertising to Children?**

Most of the research examining the food and beverage advertising to children has been done in the US (e.g., Weber, Story & Harnack, 2006; King & Hill, 2008), UK, Australia (e.g., Kelly & Chapman, 2007; Kelly, Hattersley, King & Flood, 2008) and New Zealand. To date, only two studies analyzing the exposure of Canadian children to food and beverage advertising have been published. Adams and colleagues collected data on food advertisements aired during the week of October 30, 2006 from four popular free-to-view channels in Ontario and Quebec (2009). The results revealed a total of 2,315 food-related advertisements, 257 of which were aired when at least 20% of the audience was 2-17-years-old. The most frequently advertised food products were for meals (35.3%), restaurants (14.2%), and grain products (10.8%). The second study was an examination of television food advertising to children across 11 countries (Kelly, Halford, Boyland, Chapman, Bautista-Castaño, Berg, et al., 2010). From the Canadian data, the results indicated four food ads/hour were shown during children's peak television viewing times (when the number of children watching television was greater than a quarter of the maximum child audience rating for the day) and six food ads/hour were shown during non-peak times. Furthermore, approximately 83% of ads were for "non-core" foods, as defined by the Australian Dietary Guidelines and 24% of food ads were for fast food restaurants.

These studies represent an increase in our knowledge of the extent and nature of food and beverage advertising to children in Canada but there is much left to investigate in terms of the advertising experienced by different age groups watching different television stations (e.g., those supported by advertising, those not supported by advertising, pay-for-view, etc.). US research suggests that there are differences across television stations, viewing times, and type of programming (e.g., children's versus prime-time; cable vs. broadcast; weekend vs. weekday; ad-supported vs. commercial-free) (Gantz, Schwartz, Angelini & Rideout, 2007).

"Because children 8-12 watch so much television, and therefore see so many food ads, they may be the group most affected by food marketing."

Overall, there is clear evidence from a rigorous and comprehensive study conducted for the Kaiser Family Foundation (Gantz et al., 2007) that processed foods and fast foods are highly promoted, and unprocessed foods get little promotion. Using over 1,600 hours of television programming and covering the top 10 networks viewed by children in three age groupings (2-8 yrs; 9-11 yrs; 12-17 yrs), a total of over 40,000 ads and close to 1,000 public service announcements (PSAs) were examined and coded. Overall, 8,854 ads were for food, the largest product category viewed by each of the three age groupings. These were predominately ads for candy and snacks (34%), cereal (28%), and fast food (10%), with children aged 8-12 years seeing the highest number of food ads per day (an average of 21/day). In contrast, only 4% of ads were for dairy products, 1% for fruit juices, and there were no ads for fruits or vegetables. Children aged 2-7 and 8-12 would see, on average, one PSA on fitness or nutrition every 2-3 days, while children aged 13-17 would see less than one PSA per week (or one for every 130 food ads).

The authors conclude that 'tweens' (children aged 8-12) may be the most vulnerable:

"Because children 8-12 watch so much television, and therefore see so many food ads, they may be the group most affected by food marketing. This is also likely to be an especially important age for the development of children's food habits, since they are likely to have more time away from their parents, have their own money, and have more opportunity to make their own food choices. Therefore, policymakers and industry leaders may want to pay special attention to advertising seen by tweens" (Gantz et al., 2007, p.4).

The Federal Trade Commission (FTC) in the US found similar results in its analysis of advertising data from 2004 (Holt, Ippolito, Desrocher & Kelley, 2007). Children aged two to 11 years were exposed to an average of approximately 5,500 food ads per year, which is approximately 22% of all ads (approximately 25,600 ads) seen each year by children. The report authors note that Saturday morning children's programming accounts for only 4.3% of children's exposure to ads, with almost 30% of children's exposure to TV ads occurring from programs watched during prime-time (8 p.m. to midnight). Therefore, much of children's exposure to food and beverage advertising is coming from prime time and non-children's programming.

"Much of children's exposure to food and beverage advertising is coming from prime time and non-children's programming."

The Rudd Center for Food Policy and Obesity at Yale University released a report in October 2009 titled, "Cereal FACTS: Evaluating the Nutrition Quality and Marketing of Children's Cereals" (Harris, Schwartz, Brownell, Sarda, Weinberg, Speers et al., 2009). The report covers the period of late 2008 to early 2009, just before and during the period when the CFBAI pledges were being implemented by participating companies in the US. Only cereals ads were monitored, as they represent the largest category of product ads aimed directly at children. In 2008, cereal manufacturers spent an estimated \$156 million to advertise breakfast cereals on TV and other media.

The researchers at the Rudd Center began with the premise that children are more susceptible to advertising, and therefore "products and messages used to market foods to youth must be held to a higher standard than those used to market to parents and adults." (p.vi) The nutrient analyses compared brands advertised directly to children (i.e., child brands), brands directed to parents as appropriate for families (i.e., family brands), and those marketed specifically to adults (i.e., adult brands). The Nutrition Profiling Index (NPI) used in the UK to categorize foods that are considered 'healthy' and can be advertised to children, was used to categorize 277 cereals marketed by 13 companies.

The most striking findings were that "child cereals contain 85% more sugar, 65% less fiber and 60% more sodium when compared to adult cereals," and that not one child brand met the UK standard (i.e., would be permitted to be advertised on TV in the UK) (p.vi). The report noted that two-thirds of the cereal brands from the major manufacturers had some nutrient reformulations, which was encouraging. However, the authors concluded that "these improvements have been minimal; in most cases, the equivalent of reducing sugar content from 3 ½ tsp to 3 tsp per serving." (p.vi)

The research also found that, on average, 767,000 young people spend an average of 66 minutes each month on the General Mills website Millsberry.com. In addition, "although General Mills and Kellogg have pledged that they will not advertise to preschoolers directly, the average 2- to 5-year old viewed more than 500 television ads for child cereals in 2008. and 89% of them were from General Mills and Kellogg." (p.vii)

General Mills has announced it will reduce the sugar content of many brands. While these are American data, many Canadian children and youth watch programs originating from the US, and Canadian regulations do not apply to ads generated outside of Canada.

B. What Do We Know About the Extent to Which Children Pay Attention to and **Understand Advertising?**

There is much debate on the level of understanding that children have of advertisements for food and beverages, and what effect ads have on children's behaviour and food choices. Children are either seen as critical consumers with untapped buying power, or as having underdeveloped cognitive skills to defend themselves against the persuasive efforts of advertising (Owen, Auty, Lewis & Berridge, 2007). This dichotomy can also be the driving force behind studies, with commercial institutions often conducting studies on children's consumer behaviour and producing conclusions favourable to their industry (Valkenburg, 2000).

Research using a cognitive skills perspective with children either focuses on their ability to distinguish commercials from television programs, or their ability to understand the selling intent of advertising (Valkenburg, 2000; Oates, Blades & Gunter, 2002). Adopting Piaget's theory of cognitive development, children in the concrete operational stage of 7 to 12 years are more likely to separate television programs from commercials and have an increased understanding of the intent of advertising compared to children in the preoperational stage of 2 to 7 years (Valkenburg, 2000). However, Oates et al. (2002) are quick to point out that perceptual cues (the short length of the advertisement, presence of a jingle) may play a definitive role in young children making the distinction between advertising and programming. The use of popular cartoon characters in advertisements can also lead to confusion. especially in very young children.

Much discussion occurs when attempts are made at establishing an age cut-off or requirement for when children are able to make informed decisions regarding the persuasive intent of advertising. Using age blocks in studies to compare younger children to older children has become guite common as an attempt to resolve this dilemma. A qualitative study by Owen et al. (2007) used pictorial prompts depicting four different possibilities for why advertising exists with focus groups of 7 year olds and 10 year olds. The younger children in this study showed less understanding of the selling intentions of advertisements than the older children, even after being asked a second time with the help of the visual aids.

"Most children ages 8 years and under do not effectively comprehend the persuasive intent of marketing messages, and most children ages 4 years and under cannot consistently discriminate between television advertising and programming."

While two-thirds of the 10 year olds were able to articulate the persuasive purpose of advertising ("try and sell us something") without being prompted, nearly half of the 7 year olds were not able to reach this same level of comprehension, with one quarter of them answering that they "did not know".

A similar study showed significant differences between children aged 6, 8 and 10 when testing recognition memory and understanding of unfamiliar advertisements (Oates et al., 2002). The authors concluded that while the children's recognition of stills from the advertisements was high, their understanding of the purpose of ads was quite poor. Asked what the purpose of advertisements were, none of the answers expressed by the 6 year olds indicated the purpose was to persuade, with only one-quarter of the 8 year olds and one-third of the 10 year olds indicating this purpose. The most common response across all age blocks was that advertisements existed simply to provide product information, contradicting previous studies that claimed children of this age did in fact understand the persuasive intent behind advertisements.

In a comprehensive review conducted by the IOM (2006), the evidence was summarized as follows:

"Most children ages 8 years and under do not effectively comprehend the persuasive intent of marketing messages, and most children ages 4 years and under cannot consistently discriminate between television advertising and programming. The evidence is currently insufficient to determine whether or not this meaningfully alters the ways in which food and beverage marketing messages influence children" (p.9).

The evidence cited above from more recent primary studies continues to support this conclusion, and suggests that children may still have difficulty understanding the persuasive intent of advertising at 10 years of age.

C. What Do We Know About the Effects of Advertising on Children's Food Preferences, **Requests and Choices?**

One of the simplest ways of studying the effects of advertising on children is by measuring their expressed preferences for these products. In one recent study by Chernin (2008), children aged five to 11 years old (n = 133, 39.8% male, 68.5% Caucasian) were shown commercials for unfamiliar food products that were embedded in television segments. Afterwards, children were interviewed on their food preferences. Chernin found that exposure to the food commercials increased children's preferences for these products regardless of age. Thus, even children who were deemed old enough to understand the persuasive intent of advertising were still influenced by the advertisements. One limitation of this study, however, was that it only measured *expressed* preferences for food products. It could be argued that foods children say they prefer do not necessarily translate to the foods they actually prefer.

To overcome this possible discrepancy between expressed preference and actual preference, other researchers have examined how advertisements affect children's requests for food. This was based on the idea that parents are often the gatekeepers of food and if children need to request specific foods in order to obtain them, this must reflect their preferences for those items. Chamberlain, Wang and Robinson (2006) recorded the self-reported purchase requests for advertised food and toys along with the self-reported screen exposure of 386 children in grade three over 20 months. The authors found that screen exposure was directly related to children's requests for advertised products. Furthermore, while television viewing was not significantly related to future requests for toys, it was significantly related to future requests for food and drinks. This was consistent across sex, language, ethnicity, parental education, and parental marital status variables.

This area of research was advanced by Buijzen and Valkenburg (2008), who examined the influence of television viewing on children's actual purchase requests through direct observation methods of 269 parent-child groups in supermarkets and toy stores. The authors noted that children's television viewing was the most important positive predictor of purchase requests. As well, they described that age was

significantly related to the number of purchase requests made by children, with the number of requests increasing until early elementary school (about age six) and then declining in late elementary school (about age 12).

Another group of researchers felt that the best way to uncover children's true preferences was by investigating how advertisements would directly affect children's actual food choices. In a study of 5-7 year-old children (n=93) in the United Kingdom, Halford, Boyland, Hughes, Oliviera and Dovey (2007) examined the relationships between body weight (normal vs overweight/obese), the effect of food advertisements on intake, and snack selection. During the study children viewed a 10-minute cartoon preceded by five minutes of either food advertisements (the experimental group) or toy advertisements (the control group). Afterwards, children were allowed to choose one of five snacks that represented five different snack categories and were allowed to eat as much as they wanted. The authors found that children ate more snacks after watching the food advertisements than the toy advertisements, irrespective of their body weight status. Interestingly, children in the food advertisement condition ate significantly more high-fat foods (13%), low-fat foods (28%), sweet foods (15%), and savoury foods (44%) compared to children in the toy advertisement condition.

Halford, Boyland, Hughes, Stacey, McKean, and Dovey (2007) conducted a follow-up study with an older group of children, 9-11 year-olds (n = 59). Similar to the first study, total intake during the snack period was higher after exposure to food ads compared with intakes after exposure to toy advertisements (control condition). However, the increases in energy intake varied by body weight category: 250 kcal more for normal weight children; 306 kcal more for overweight children; and 471 kcal more for obese children compared with energy intakes after exposure to toy advertisements (no significant differences by body weight). In other words, this group of older children ate significantly more snack foods after viewing food ads than after viewing toy ads, and these amounts increased with higher body weights. Further, the obese group ate significantly more chocolate and high salt snack food than other groups. Taken together, the results of these two studies suggest that watching food ads leads to increased food intakes among both younger and older groups of children, and this exposure to food ads may affect children of different weight groups differently.

Finally, some studies have tried to evaluate how advertisement exposure could affect children's overall consumption patterns. Utter, Scragg, and Schaff (2006) examined how the amount of television viewing is related to consumption frequency of repeatedly advertised foods. They did this by compiling information on children's individual food consumption patterns from a national nutrition survey in New Zealand, and comparing it to television data indicating the most commonly advertised foods during the time of day most children would likely watch. Children who watched two or more hours of television per day were twice as likely to be high consumers (>75th percentile for consumption frequency) of soda, hamburgers, fries, and all other advertised foods except chocolate and fried chicken. A serious limitation of this study, however, was that the television data used to analyze the nutrition information were three years older and may not have been representative of the actual food advertisements that were shown while the nutrition information was collected.

"Television advertising influences children to prefer and request high-calorie and low-nutrient foods and beverages."

This limitation was overcome in study of 4-12 year-old children (n = 234) in the Netherlands (Buizjen, Schuurman & Bomhof, 2008). This innovative study provided children with a food diary to keep track of intake over four days and a questionnaire for parents designed to detail children's television-viewing behaviors. These data were compared to a television dataset for all advertisements in the month leading up to the study. Using this information each child was assigned a food advertising exposure score that could be used to analyze intake. Researchers found that increasing advertising exposure was related to the increasing consumption of advertised brands and energy-dense products, and that increasing television-viewing time was directly related to the consumption of all food products.

The comprehensive IOM review (2006) summarized the evidence on the impact of television advertising on the preferences and purchase requests of children as follows:

- 1. "There is strong evidence that television advertising influences the food and beverage preferences of children ages 2-11 years. There is insufficient evidence about its influence on the preferences of teens ages 12-18 years" (p.8).
- 2. "There is strong evidence that television advertising influences the food and beverage purchase requests of children ages 2-11 years. There is insufficient evidence about its influence on the purchase requests of teens ages 12-18 years" (p.8).
- 3. "Given the findings from the systematic evidence review of the influence of marketing on the precursors of diet, and given the evidence from content analyses that the preponderance of television food and beverage advertising relevant to children and youth promotes highcalorie and low-nutrient products, it can be concluded that television advertising influences children to prefer and request high-calorie and low-nutrient foods and beverages" (p.8).

D. How do Parents Respond to Children's Purchase Requests? What is the Role of Family **Communication Style?**

It is noteworthy that, regardless of what the compiled evidence on the effect of advertising on children indicates, advertising to children has remained a popular practice for companies. This suggests, at the very least, that this practice is profitable, otherwise the industries would advertise strictly to parents. In support of this, Jones and Fabrianesi (2008) examined how the same product can be distinctly marketed to these two separate target audiences. Using a convenience sample of 100 adults, they randomly assigned participants to view either the child-targeted or the adult-targeted ad and then answer questions about the product. For all four products reviewed, the authors found significant differences between the two groups in the perceived healthiness of the product, the perceived tastiness of it, and their intention to buy it for their children or themselves. Adult-targeted ads focused on making the food appear healthy, nutritious, tasty, and convenient, whereas the child-targeted ads portrayed foods as fun, exciting, and popular.

If parents really are the gatekeepers to what foods children have access to, then how they respond to children's attempts to influence food purchases must surely be an important part of the puzzle. Unfortunately, evidence in this area is either dated or completely lacking.

One newer study, published by Buijzen and Valkenburg in 2008 found that almost 33% of attempts by children to influence their parent's purchases were successful. Furthermore, the success rate increased with age as children were more likely to be involved in the decision-making process as they aged. The authors also noted that children's television viewing behaviour was the most important predictor of whether children would attempt to influence purchases.

Besides the role of gatekeeper, scientists have struggled to identify other roles parents might play in helping children navigate the world of advertising. For example, it has been suggested that parental communication styles may influence how much television children are permitted to watch, whether they watch alone or in the presence of an adult, and whether advertisements and their intents are ever discussed in the home environment. Chan and McNeal (2003) examined

"Adult-targeted ads focused on making the food appear healthy, nutritious, tasty, and convenient, whereas the child-targeted ads portrayed foods as fun, exciting, and popular."

these questions by interviewing 1665 Chinese parents. The researchers found that these parents were likely to control what products their children were permitted to buy, but often offered choices with brands of similar products. Parents watched television with their children only sometimes, and this occurred more frequently on the weekends. When co-viewing occurred, there was little discussion of commercials. The authors also found evidence that parental control over viewing and purchasing behaviors was associated with differences in parenting styles. They concluded that marketers should first try to gain parental approval of a product before trying to sway a child's preference.

In the Buizjen et al., (2008) study described earlier, the researchers found that family communication styles and other family factors like income moderated all consumption-related variables. Socio-oriented communication, "which emphasizes obedience and harmony" within the family was compared with concept-oriented communication, "which stresses negotiation, individual ideas, and opinions". The findings showed that socio-oriented communication, in which adults make the final decisions, moderated the relationship between ad exposure and the consumption of all food products, while income moderated the relationship between ad exposure and the consumption of advertised brands. Communication style moderated the relationship between ad exposure and the consumption of energy-dense food product categories. Thus how parents and children interact in making food-related decisions, as well as factors such as income, help to explain the relationships observed between exposure to food ads and foods actually consumed.

E. Does Advertising "Healthy" Foods Influence **Children's Preferences?**

The majority of food and beverage advertisements aimed at children promote foods that are highly processed, high in sugar, fat or salt and low in fibre and protein, as clearly documented in the 2007 Kaiser Family Foundation study (Gantz, Schwartz, Angelini & Rideout, 2007). These advertisements generally link positive emotions, attractive models and snacking to the consumption of these foods (Klepp, Wind, de Bourdeaudhui, Rodrigo, Due, Bjelland et al., 2007). The majority of research examining advertising to children has concluded that food advertising leads to greater preference for, purchase, and consumption of the products advertised, a strategy that has been widely used by producers of products that are highly processed and largely targeted to children (Kaiser Family Foundation, 2004; Harris, 2009).

If increased advertising of 'unhealthy' foods leads to increased consumption of those food products, one would infer that a similar relationship would also exist if 'healthier', less processed food products, such as fruits and vegetables, were advertised. However, little advertising aimed at children exists to promote purchase and consumption of these foods. Even fewer studies have considered the impact of "healthy" advertisements on children's food attitudes, choices and risk for developing overweight or obesity (Harris, 2009; Klepp et al., 2007; King & Hill, 2008; Haerens et al., 2008).

One of the few studies to date that has considered the effects of "healthy" advertising by Klepp et al. (2007), used a large data set from the Pro Children Project and reported results from a cross-sectional survey conducted across nine European countries examining the relationship between fruit and vegetable intake and TV exposure. Beyond findings indicating that the majority of children reported watching, on average, two hours of TV per day and that most advertisements portrayed "unhealthy" food (such as soft drinks, candy, chips or chocolate), they found that watching advertisements for fruits and vegetables seemed to be weakly associated with fruit and vegetable intake among children.

King and Hill (2008) examined the effects on primary school children's hunger, food choice, mood and recall ability with exposure to healthy (fruit juice, fruit, muesli), less healthy (sausages, candy, soft drinks) or non-food related magazine ads. One week following exposure to the advertisements, no difference between the groups was found in relation to the children's hunger, food choice or mood. However, children were able to recall more of the less healthy food products than the healthy products. The authors inferred that this is significant as memory of foods likely influences children's future food preferences and purchase requests.

Pempek and Calvert (2009) selected 30 lower-income African American children ages 9-10, considered to be at a higher risk of obesity, and randomized them to two different versions of an online 'Pac-Man' type of computer game. In one version of the game, children were awarded points if they chose orange juice, bananas, apples and carrots, and they lost points if they selected soft drinks, potato chips, cookies and candy bars; the other version of the game was the reverse. After playing the game for just 10 minutes, the children were given a choice of snacks. The children assigned to the 'healthier' version of the game were significantly more likely to select and eat the healthier snacks compared to the children in the 'less healthy' version of the game. The authors concluded that this type of promotion of healthy food using online internet games that children enjoy, could be a costeffective method to address childhood obesity.

As research has demonstrated that increased exposure to television advertisements is associated with increased consumption of the products advertised and increased food consumption in general, it is important also to consider the effects of advertising healthier food products to children.

Although more study is needed, research suggests that popular forms of media, such as TV, magazines and the internet, may be effective in promoting "healthy" foods to children. However, the majority of advertising today effectively promotes "unhealthy" foods. Great attention should be given to the types of foods and the ways in which foods are portrayed on TV and the internet. Additional intervention and prospective studies directly examining the causal relationship between exposure to ads for healthy foods and intakes are needed.

F. What is the Evidence That These Food **Preferences, Requests and Choices are Linked** to Eating Behaviours, Overweight and Obesity?

Research has linked the exposure to food and beverage advertisements to increased food consumption, and demonstrated that the foods are consumed when participants show no evidence of being hungry. For example, Harris, Bargh and Brownell (2009) tested their hypothesis that automatic snacking of available food occurs when food advertising is seen on TV in both adults and children. Children aged 7-11 years of age consumed 45% more snacks when they were exposed to programming containing ads for food compared to programming without ads for food. Adults aged 18-24 years consumed more of both unhealthy and healthy snack foods following exposure to snack food (compared to no snack foods). It is interesting to note that the foods chosen for snacking were ones available in the home, including products not in the ads shown. It seems reasonable to suggest if just the viewing of food ads leads to increased consumption of foods, this may contribute to weight gain and obesity.

Clearly factors that need further study are the availability of foods in the home, and family rules around TV watching. Haerens et al. (2008) concluded that TV watching, family rules and availability of healthy or unhealthy food products were associated with eating behaviours in seventh and eighth grade children. Results of their study showed that children who reported viewing less television also consumed less fat in their diets (girls) and a greater quantity of fruit (boys) (Haerens et al. 2008).

To date, the strongest evidence of a link between TV advertising to children and child obesity comes from a secondary data analysis of the *National Longitudinal Survey* of Youth (1997) for children aged 12-18 years, and the Child-*Young Adult National Longitudinal Survey of Youth* (1979) for children aged 3-11 years, published by Chou, Rashad and Grossman (2008). The researchers were able to compare data for TV advertising of fast food restaurants according to geographical area and year with body mass index data for children and adolescents. They report that "most results show a positive and statistically significant impact of fastfood restaurant advertising on television on body mass index and on the probability of being overweight for children and

adolescents" (p.600-601). What is unique about this analysis, is that the researchers are able to estimate the potential impact of a ban on advertising fast food restaurants to children on the rates of obesity. They estimated that:

"A ban on these advertisements would reduce the number of overweight children ages 3-11 in a fixed population by 18 percent and would reduce the number of overweight adolescents ages 12-18 by 14 percent" (p.599).

This may be the best 'hard evidence' of a causal relationship between TV advertising to children and rates of child and adolescent overweight and obesity that is feasible to obtain. Using secondary data analysis techniques with large representative datasets allows researchers to explore relationships that are not feasible or ethical to conduct using randomized clinical trials.

The comprehensive IOM review (2006) summarized the evidence on the impact of TV advertising to children on childhood overweight and obesity as follows:

- 1. "Statistically, there is strong evidence that exposure to television advertising is associated with adiposity in children ages 2-11 years and teens ages 12-18 years" (p.9).
- 2. "The association between adiposity and exposure to television advertising remains after taking alternative explanations into account, but the research does not convincingly rule out other possible explanations for the association; therefore, the current evidence is not sufficient to arrive at any finding about a causal relationship from television advertising to adiposity. It is important to note that even a small influence, aggregated over the entire population of American children and youth, would be consequential in impact" (p.9).

In other words, the IOM review found a significant association but only correlational; there remains insufficient hard evidence of a causal link between TV advertising to children and childhood obesity.

Although there is not yet a causal link between food and beverage advertising to children and obesity, some researchers feel that there is sufficient evidence to support a logical pathway between advertising unhealthy foods and unhealthy weight gain. Therefore, one of the 13 studies of the Assessing Cost-Effectiveness in Obesity Project aimed to evaluate how cost-effective it would be to regulate television advertising of energy-dense, nutrient-poor foods to Australian children 5-14 years of age (Magnus, Haby, Carter & Swinburn, 2009). The authors estimated that by restricting which foods could be advertised and when, children would benefit from an average decrease in BMI of 0.17 units. While this may seem modest, the authors argued that it is a significant reduction in BMI because of the massive population the intervention reaches. Furthermore, the authors concluded that regulating food advertising to children is a very cost-effective method of reducing the incidence of childhood obesity because the total cost of the intervention was only AUD\$0.33 per BMI unit saved and AUD\$3.70 per disability adjusted life year saved.

"Although there is not yet a causal link between food and beverage advertising to children and obesity, some researchers feel that there is sufficient evidence to support a logical pathway between advertising unhealthy foods and unhealthy weight gain."

III. What are the Voluntary Standards Currently in Place in Canada?

A. Description of Self-Regulatory Framework

The Canadian Association of Broadcasters (CAB) was established in 1926 and today consists of 402 television and radio stations in Canada that are privately-owned and supported by commercial advertising. The Association serves its members by providing information and advice on regulatory and advertising issues, and by advocating on behalf of its members to government and regulators. The Canadian Broadcast Standards Council (CBSC) was formed in 1990 by CAB specifically to address complaints from the public related to radio and television programming.

The CBSC and Advertising Standards Canada (ASC) are the two industry self-regulatory groups that manage the two sets of voluntary advertising codes in Canada: the Canadian Code of Advertising Standards (CCAC) and the Broadcast Code for Advertising to Children (BCAC). The CCAC oversees all advertising that is created in Canada, across all media (for example, TV, Internet, films, magazines, mobile phones, videogames). The BCAC governs advertisements on TV and radio that are created in Canada and aimed at children under the age of 12 years. Under the BCAC all Canadian-made advertisements directed to children must first be pre-cleared by the ASC Clearance Services, to make sure they are consistent with the regulations specified in the Food and Drugs Act and the Canadian Food Inspection Agency's Guide to Food Labelling and Advertising. They next must be pre-screened and be consistent with BCAC or broadcasters will lose their licenses. Finally, they must comply with the CCAC.

Thus the advertising standards are set by the industry themselves and only apply to advertising that originates in Canada. This means that advertising to children in Canada is largely monitored by the broadcast industry not government agencies such as Health Canada, the Public Health Agency of Canada, or Industry Canada, or provincial health authorities or Ministries of Education (Cook, 2008). There is no government monitoring of the frequency of ads directed to children in today's multi-media environment or government input into the content of the ads. Further, advertisements that originate in U.S. television programs are exempt from Canadian standards.

In 2004 and 2007, the BCAC and CCAC added some Interpretation Guidelines, to further specify that advertisements for foods needed to show how the products fit in balanced, healthy diets, and to ensure that the portion sizes depicted were realistic for young children. The CCAC included media outside TV and radio, such as the Internet. Also in 2007, a new voluntary initiative comprised of 16 food companies and called the Canadian Children's Food and Beverage Advertising Initiative (CCFBAI) was announced. At the same time, a new social marketing campaign was launched by Concerned Children's Advertisers, a non-profit organization of 22 members and other partners and governments. Concerned Children's Advertisers has been helping to deliver media literacy programs and industry-funded PSAs to children for 17 years. Two TV 'Long Live Kids' PSAs focusing on healthy eating and physical activity were launched in 2007.

Since 2007, three additional food companies have joined the CCFBAI (all participants listed in Appendix 1). According to Advertising Standards Canada, participants of the initiative now sponsor over 95% of food and beverage advertisements targeted to children fewer than 12 years of age. Of the 19 food companies in the CCFBAI, nine companies pledged to stop all advertising to children under the age of 12, and the other ten pledged to advertise only 'better-for-you' products to children. The latter ten companies developed their own specific criteria for defining products that could be advertised to children, basing their criteria on Canada's Food Guide, the Canadian Food Inspection Agency's Guide to Food Labelling and Advertising, or the Heart & Stroke Foundation's Health Check™ program.

Each of the participating companies in the CCFBAI also was required to commit to the following five Core Principles:

- "devote 100 per cent of their television, radio, print and Internet advertising directed primarily to children under 12 years of age to promote products that represent healthy dietary choices, or not direct advertising primarily to children under 12,
- incorporate only products that represent healthy dietary choices or include healthy lifestyle messages in interactive games primarily directed to children under 12 years of age,
- reduce the use of third-party licensed characters in advertising directed primarily to children under 12 that does not meet the Children's Advertising Initiative criteria for healthy dietary products or healthy lifestyle messaging,
- not pay for or actively seek to place food and beverage products in program/editorial content of any medium primarily directed to children, and
- not advertise food or beverage products in elementary schools - pre-kindergarten through Grade 6." (CCFBAI, 2010a).

Furthermore, to "ensure program flexibility and responsiveness" (ASC, 2010b) additional media have been included in the core principles to cover:

- "Video and computer games rated "Early Childhood" or "EC" that are inherently primarily directed to children under 12, and other games that are agegraded on the label and packaging as being primarily directed to children under 12;
- DVDs of "G" rated movies in which content is primarily directed to children under 12; and
- Mobile media such as cell phones, PDAs and through word of mouth², where advertising is primarily directed to children under 12" (p. 3).

B. The Canadian Children's Food and Beverage **Advertising Initiative: Yearly Compliance Reports**

Advertising Standards Canada (ASC) is dedicated to conducting annual audits of participants' compliance to their CCFBAI commitments (ASC, 2010b). In August 2010, ASC released its second annual compliance report, entitled "The Canadian Children's Food and Beverage Advertising Initiative: 2009 Compliance Report", which documented the commitments made by members and their compliance rates for 2009. Compliance was evaluated in two ways. First, there was an independent audit that included three parts:

- 1. ASC's Children's Clearance Committee incorporated company commitments to the CCFBAI in evaluation criteria when approving new television and broadcast advertisements:
- 2. Consumer complaints were analyzed; and
- 3. Company and third-party websites, children's television programming, and magazines were monitored.

Second, participants were required to submit comprehensive reports detailing their compliance. This methodology was slightly different than the approach taken in the first year, where the ASC audit included four days of monitoring advertisements targeted to children on four Canadian channels that showed children's programs.

Participants' compliance to their CCFBAI commitments has remained very high and in 2009 only a single compliance issue was discovered. This represented an improvement in compliance over 2008, where two minor compliance issues were identified (ASC, 2009; ASC, 2010b). In all cases, compliance issues were immediately rectified. As well, in 2009 ASC uncovered isolated incidents where television stations aired participants' products that were not considered "better-for-you" during children's television programming as a result of "bonusing" (ASC, 2010b). Participants have also addressed this issue.

Word of mouth is defined by ASC as "advertising where a Participant provides incentives (financial or otherwise), product samples, or other support to individuals or groups who are not employees to promote consumption of branded food or beverage products or to promote discussion of such products, and this advertising is primarily directed to children under 12 years of age." (p. 3)

C. Gaps and Limitations in the Canadian Self-Regulatory (Voluntary) System

- 1. A major limitation in this self-regulatory system is that it only applies to advertisements generated in Canada; ads that originate in the U.S. but are shown on Canadian TV channels are exempt.
- 2. The self-regulatory system is geared to the acceptability of individual advertisements, and is not concerned with the overall total exposure to advertising that children experience from broadcast and non-broadcast sources.
- 3. There are currently only 19 companies in Canada participating in the CCFBAI. A list of other companies in Canada not yet participating is found in the Appendix and includes some large food companies such as ConAgra Canada and Danone. Also, only two fast food restaurant chains currently belong to the CCFBAI (McDonald's and Burger King).
- 4. There is no consistency across similar products in the criteria used to assess 'better-for-you'. For example, among breakfast cereals, there are differences in the nutrition criteria for sugar (e.g., 10 vs 12 grams), calories (120 vs 175 vs 200), total fat (3 grams vs no limit specified), and only one cereal brand mentions criteria for fibre.
- 5. Health experts were not involved in the development of nutrition criteria for "healthier choices", and many dietitians would question some of the foods that fit within the industry standard. These include breakfast cereals, fruit snacks, cookies and pastries that are high in sugar and some products high in sodium.
- 6. Product packaging is not included in the definition of advertising, and this means that products can have licensed characters on their packages to attract children's interest.
- 7. Advertisements may not use licensed characters but they are allowed to continue to use advertiser-generated characters, which are developed and used specifically with their brands.
- 8. The ban on advertising in schools excludes "displays of food and beverage products, and charitable/not-for-profit activities including fundraising, public service messaging and educational programs" (CCFBAI, 2009).

9. The self-regulatory system applies only to children's programs, yet the FTC in the U.S. found that much of children's exposure to food and beverage advertising is coming from prime time and non-children's programming.

D. External Monitoring of the CFBAI Self-Regulatory (Voluntary) System in the US

Center for Science in the Public Interest Report

In the US, Batada, Wootan, and Arneson (2009) at the Center for Science in the Public Interest (CSPI) asked the guestion. "do nutrition standards and pledge adherence translate to fewer ads for foods of poor nutritional quality?" CSPI examined the commitments or "pledges" made by participants in the Children's Food and Beverage Advertising Initiative (CFBAI), which is sponsored in the US by the Council of Better Business Bureaus, and then documented CFBAI-approved ads for "better-for-you" foods that aired between February and April 2009. Of the 452 products advertised, 391 were foods (yogurt 24%, fruit-flavoured snacks 17%, and frozen treats 16%), and 61 were beverages (juice drinks 48%, 100% juices 31%, and sports drinks 13%).

To determine the nutritional quality of these products, CSPI used standards based on those developed by the National Alliance for Nutrition and Activity's (NANA) Model School Wellness Policies on Physical Activity and Nutrition and on the Dietary Guidelines for Americans. Their analysis showed that each advertised product was consistent with the standards set by the company—in other words, each company advertised only those products that it had approved. However, 59% of these products did not meet the nutrient standards used by CSPI, and this varied across different types of foods. For example none of the fruit-flavoured snacks met the CSPI criteria while 73% of yogurts did. Products approved for advertising to children by Burger King, Nestlé, Dannon and ConAgra were more likely to meet the CSPI criteria, while those from Pepsi, Kraft, McDonald's, General Mills, Kellogg, Unilever and Campbell were less likely to meet the CSPI standards. The CSPI researchers also found that on the most popular children's broadcast network, Nickelodeon, approximately 25% of the

food and beverage advertisements shown were for products from companies not participating in the CCFBAI, and most of these products did not meet the CSPI nutrient criteria.

"Without more significant progress, the country will need to rely on government regulation rather than self-regulation as the means to address food marketing to children."

To examine trends over the past 4 years, they compared 28 hours of ads over two days on Nickelodeon in 2005 with 2009. The total number of ads over the 28 hour period was relatively constant (168 in 2005; 161 in 2009, and there was a slight drop in the proportion of those ads that were for less nutritious foods (88% in 2005 compared with 79% in 2009). The authors' conclusions were as follows:

"This study suggests that self-regulation is having a modest, positive impact. However, as currently practiced, it is not sufficient to address food marketing to children..... Given the high rates of childhood obesity and prevalence of poor nutrition among children, the small magnitude of changes in the nutritional quality of foods marketed to children is unacceptable. In order for self-regulation to result in more than incremental change, all food and media companies that market to children should adopt a uniform set of strong nutrition standards and apply them to their full range of marketing to youth. Without more significant progress, the country will need to rely on government regulation rather than self-regulation as the means to address food marketing to children." (p.10)

Children Now Report

In December 2009, the results of a study commissioned by the advocacy group "Children Now" were released (Kunkel, McKinley & Wright, 2009). The research was led by a communications expert who has looked at the issue of children and the media for 25 years, and the purpose was to determine "the effectiveness of the Children's Food and Beverage Advertising Initiative". At the time the research was conducted, there were 15 companies in the US participating in the CFBAI (Post Foods had not yet joined). The researchers

examined TV ads across a sample of more than 100 children's programs, from February to April 2009, and categorized the food advertised as being "Go" [low in fat and added sugar], "Slow" [sometimes foods] and "Whoa" [high in fat and added sugar] according to a rating system used by the U.S. Department of Health and Human Services. These 2009 findings were compared to data collected in 2005, to see differences between TV ads before and after the CFBAI was fully implemented.

Many of the key findings supported the results of other research. Fruit and vegetable ads comprised only 1% of the food ads during children's programming. Almost threequarters (72.5%) of the food ads were for "Whoa" foods. high in fat and added sugar; while this is down slightly from 2005 (84%), it shows that the CFBAI did not have a large impact on the advertising of less healthy foods to children. The researchers estimated that in 10 hours of children's programming, a child would see 1 ad for "Go" foods, 20 for "Slow" foods, and 55 ads for "Whoa" foods. Further, the use of licensed characters was to be limited to the "better-for-you" foods under the CFBAI. However, 49% of the ads containing licensed characters in the sample examined were for foods in the "Whoa" or poorest nutritional group.

The researchers concluded that:

"The findings in this report demonstrate that the CFBAI has not improved the overall nutritional quality of ads targeting children. Moreover, the food and beverage industry has failed to meet the IOM's principal recommendation to voluntarily shift the balance of children's food marketing away from low-nutrient, high-[caloric] density foods to "advertising strategies that promote healthier foods, beverages, and meal options" (p.7).

IV. What are the Current Provincial and Federal Systems Governing Marketing to Children?

A. Quebec Legislation

The province of Quebec, through its 1980 Consumer Protection Act, has had a legislated ban on all advertising directed at children under the age of 13, for almost 30 years. However, it only covers advertising that was developed in Quebec, and excludes advertising that is broadcast from outside the province. The province's Consumer Protection Office is responsible for the legislation, but there is no monitoring of the ban and no guidance on how to enforce the ban. There are reports that some toy manufacturers have found ways around the ban, such as developing their own children's TV programs in which they can showcase their products, prompting calls for revisions to the legislation. As a result of the lack of monitoring and enforcement of the ban, it is impossible to assess the effectiveness of this approach.

Should Quebec's model be adopted nationally? After the release of the CCFBAI's Year One Compliance Report earlier this year, the Quebec Coalition on Weight-Related Problems (Weight Coalition/Coalition Poids) issued a press release calling for legislation similar to Quebec's Consumer Protection Act to be developed and applied all across Canada. The group criticized the CCFBAI for "almost fully meeting the standards they had set for themselves; standards which are very elastic" and stated that a legislative approach was more efficient than self-regulation.

In 2007 there was an attempt to amend the Industry Canada's Competition Act and a section of the Food and *Drugs Act* (child protection against advertising exploitation) put forward as Bill C-414 by Peter Julian (NDP). In essence,

this proposed federal legislation would have adopted Quebec's legislation at the federal level. However, Bill C-414 was tabled in October 2007.

B. Federal Legislation

The Canadian Radio-television and Telecommunications Commission (CRTC) has been regulating broadcasting in Canada since 1968, under the Broadcasting Act (1991), the Telecommunications Act (1993), and the Bell Canada Act (1987). The CRTC's mandate includes broadcast video and audio streamed on the internet, but it has no mandate over other internet content that is not considered to be 'broadcasting', such as advergaming.

The CRTC works together with the self-regulatory groups described in the previous section to develop broadcasting standards that include advertising and programs developed for children. It issues broadcast licenses and monitors the license holders (cable companies, cable and radio stations) for their compliance with regulations and policy. In order for broadcasters to keep their licenses, the content of advertisements to children must be reviewed and approved by Advertising Standards Canada's (ASC's) Children's Clearance Committee. Ads must also be pre-cleared to ensure they are consistent with the regulations specified in the Food and Drugs Act and the Canadian Food Inspection Agency's Guide to Food Labelling and Advertising.

C. Gaps and Limitations in These Regulatory **Systems**

- 1. The Quebec legislation has remained unchanged since it was first developed in 1980, despite profound changes in the mass media and in advertising strategies targeting children. This legislation does not define "advertisements" and thus it is difficult to assess the effects of the ban on consumer food choices. One unpublished draft document (Baylis & Dhar, 2007) attempts to assess the effectiveness of the ban by examining household expenditures on fast food in households with and without children. The authors conclude, "although we cannot test the effect of the ban directly, we find a myriad of evidence that indicates that the ban had an effect on the number of fast food meals purchased".
- 2. It is difficult to determine if an ad is intended for children under the age of 13 years, and if it is enjoyed by them.

D. Examples of Regulatory Systems in Other **Countries**

The World Health Organization commissioned a report (Hawkes, 2007) entitled, "Marketing Food to Children: Changes in the Global Regulatory Environment 2004-2006" to address recent changes in advertising to children since 2004. The research identified six key trends:

- 1. The advertising and food industries are working together to proactively develop their own self-regulatory codes and standards;
- 2. Some governments are slow to develop regulatory standards, even though they have strong support from public health and consumer groups;
- 3. Wealthier countries are taking more action against advertising messages that promote energy dense and nutrient poor food choices, compared to less affluent countries where advertising is increasing and could potentially have a much larger impact;
- 4. Although there is a shift away from TV advertising towards advertising on the Internet and in schools, most efforts are still focused on reducing advertising to children on TV;

- 5. Where governments do have existing and new legislation, legal actions are rare; the quality of the ads has received more attention than the total number of ads and their effects on children's diets:
- 6. Conventional TV advertising continues to increase in lower- and middle-income countries, and the use of non-traditional advertising strategies is growing in all countries.

Hawkes (2007) notes that:

"A major barrier to developing regulations to discourage marketing messages that promote unhealthy dietary practices has emerged: i.e., lack of clarity on the standard and level of evidence available to support the development of regulations. Different stakeholders use different standards of evidence to argue for and against different positions, thereby obfuscating the debate around regulatory options" (p.10).

"Some governments are slow to develop regulatory standards, even though they have strong support from public health and consumer groups."

In European countries there are both voluntary and regulatory approaches to discourage the advertising of unhealthy dietary practices. Legislation was somewhat tightened in Denmark recently with an amendment to the Danish Marketing Act. Voluntary guidelines developed by public health and the Finnish Consumer Agency and Ombudsman are in place for all forms of marketing, not just advertising, in Finland. Various measures have been proposed in France, including a law against advertising 'unhealthy' foods on TV with stiff fines as a penalty, but it has not been implemented. Industry in France introduced a new self-regulatory code in 2005 that includes standards for Internet advertising. Ireland has a Children's Advertising Code developed by the Advertising Standards Authority to Ireland, which includes a contentious clause banning the use of celebrities or sports figures to promote food or drinks. The Netherlands largely uses self-regulation by industry, whereas Norway has banned TV and radio advertising to children and during children's programming.

However, like Quebec, this only applies to advertising originating in Norway, and doesn't apply to advertising coming from other countries. Spain has a four-part self-regulatory code conceived by government and the heads of four major TV channels, which is integrated into their national "Nutrition, Physical Activity, Health and Obesity Prevention Strategy". Sweden bans all advertising to children under the age of 12 years, and public health groups are calling for greater monitoring efforts.

Research evaluating the changing European policy landscape with regards to food marketing to children was presented at the 11th International Congress on Obesity. Tim Lobstein, director of policy at the International Association for the Study of Obesity commented that:

"There is real progress, but the challenges are numerous. Firstly, most countries do not address advertising to children by the calorie content or other nutrient quality of the food product and marketing channels beyond broadcast advertising have been largely ignored. Secondly, our research has shown that there's a certain amount of anarchy at the moment and concluded that the terms need to be set by the government, not the industry itself, because although they appear to be willing, there's chaos within the details, with a lot of contradiction in what industry is offering" (International Congress on Obesity, 2010).

"The terms need to be set by the government, not the industry itself, because although they appear to be willing, there's chaos within the details, with a lot of contradiction in what industry is offering."

V. What Options are Available to Lessen the Impact of Advertising on Children?

A. Media Literacy Education for Children and **Parents**

Media literacy is a form of functional literacy, and is one type of health literacy. As its core, media literacy is designed to help children understand the persuasive intent of advertising. Some studies indicate that children as young as five years of age are able to grasp elementary advertising concepts and might benefit from media literacy training (Scheibe, 2009). There is little evidence, however, to suggest that helping children understand the persuasive intent of advertising will translate into modified attitudes and behaviours. One previously mentioned study comparing the effect of food advertising on children 5-11 years of age even noted that although the 11-year-olds were old enough to understand the intent of the food advertisement, this understanding was not enough to sway their preferences for advertised products (Chernin, 2008).

Media literacy is frequently recommended as a means of enabling children to cope with food advertisements. In fact, several of the aforementioned studies included discussions of the merits of media literacy as a way of responding to the evidence linking childhood obesity and food advertising to children. Interestingly, however, there are few studies examining the effect of media literacy on children's understanding and reactions to food advertisements. The vast majority of research in favour of media literacy focuses on understanding violence on television, education on eating disorders, and smoking prevention.

While similarities may be drawn between media literacy campaigns for violence, eating disorders, smoking, and food advertisements, there are inherent differences in the campaign contexts that prevent generalization of the results from one campaign to another. For example, helping children understand the violence they see on television is straightforward and open; every attempt is made for children to comprehend the difference between what happens in a television program and what happens in real life. Food advertising, on the other hand, is persuasive in content and has been created to intentionally influence and manipulate children's preferences and intentions towards certain foods. The two types of media literacy campaigns require much different cognitive skills and learning. Similar arguments can be made for the difference between eating disorder and smoking prevention campaigns and those for food advertisements.

Much of the media literacy research is dated. A recent review of the literature by Livingstone and Helsper (2006) found that much of the evidence is from the 1970s and 1980s. The authors point out that, since that time, several review studies have described methodological problems of studying the effects of media literacy. These challenges may explain why Livingstone and Helsper were unable to locate any empirical evidence that suggests media literacy reduces one's susceptibility to the effects of food advertising. Additionally, in the period of time since the initial research was completed, industry has significantly changed the media environment by developing newer and more advanced advertising strategies (Valkenburg, 2000). Thus, it is valid to question whether such dated evidence can be applied to today's advertising milieu.

According to Jennifer Harris of the Rudd Center for Food Policy and Obesity, the previous approach to advertising theory (the Information Processing Model) was serial in nature; advertisements were viewed, processed by the brain, committed to memory, and then consciously retrieved later on to help affect the decision-making process (Harris, 2008). She describes how current advertising theory, however, makes use of 'under-the-radar' approaches that rely on setting up environmental cues through short, repeated exposures to the product and brand representation. These cues, known as primes, affect behaviour by producing automatic and subconscious responses in children—what Harris calls "mindless processing" and "non-conscious mental contamination". As primes are intentionally subtle and difficult to pinpoint (e.g., background music in a restaurant), it is questionable whether media literacy would be enough to combat this advanced advertising strategy, particularly when TV ads may be only 10 or 15 seconds in length.

There is one noteworthy study on a media literacy nutrition education curriculum from California (Hindin, Contento & Gussow, 2004). This four-week course noted significant improvements in parents' understandings of and attitudes towards television advertisements, as well as improvements in feelings of self-efficacy, television mediation behaviours, and abilities to read nutrition labels. It should be noted, however, that the sample size was small (n = 35) and parents volunteered for study, which means that results may not be generalizable to the population of parents at large. Furthermore, the study only evaluated the effect of the curriculum on parents; there is no indication of how parental education influenced children's responses to food advertisements.

Bergsma and Carney (2008) conducted a recent systematic review of the effectiveness of health-promoting media literacy education. They concluded that:

"Media literacy education has the potential to be a useful health-promoting strategy for ameliorating a number of harmful health behaviors. To date, however, evidence for its potential is based more on theory than on rigorous demonstrations of efficacy or effectiveness."

Because of the lack of conclusive evidence of the effectiveness of media literacy programs in combating food advertising to children, and also the use of new 'under-theradar' advertising techniques, teaching media literacy skills to children may not be a strong option for attenuating the effects of food advertising directed to children. It may be more effective and proactive to direct efforts towards limiting the amount or type of food advertising that reaches children, rather than committing resources to try to counteract the effects of food advertising on children. Other media experts suggest that media advocacy strategies, which keep the issue of advertising to children on the public agenda and engage voters, may be effective (Graydon, 2008). Identifying ways to strengthen existing legislation and generating research that demonstrates that solutions will result in savings to health care budgets are other strategies (Graydon, 2008).

B. Policy Options

There appears to be consensus that childhood obesity is a complex phenomenon with a wide array of contributing factors. Although advertising to children is only one of those possible factors, a recent survey of 2,000 representative Canadians revealed overwhelming support for government intervention (Coalition Poids, 2010). A full 75% of respondents felt that food advertising to children was contributing to overweight and obesity, 82% were in favour of restricting the marketing of low-nutrient dense foods to children, and 64% felt that all advertising targeted to children should be prohibited across Canada.

Public health experts point to several possible policy options, including:

- 1. Restricting the amount or regulating the content of food ads directed to children. This approach has been adopted in the U.K., for example, to limit the TV advertising of less healthy food to children. In order to define "healthy" and "less healthy" foods and beverages, criteria for nutrient dense foods needed to be agreed upon, and the Nutrient Profile Model was developed. A New Zealand study applied these criteria to identify 'unhealthy' foods that were advertised on TV (Jenkin, Wilson, & Hermanson, 2009);
- 2. Strengthening and expanding public health education campaigns promoting healthy eating and exercise;
- 3. Embedding messages about healthy eating directly into TV programming (as opposed to using PSAs and commercials):
- 4. Developing interventions to reduce screen-time for children.

The IOM Recommendations

Following its comprehensive review of the literature, the IOM (2006) acknowledged what it called the "underutilized potential" of the current multi-media environment. It developed five broad conclusions and recommendations, as follows:

- · "Along with many other intersecting factors, food and beverage marketing influences the diets and health prospects of children and youth.
- Food and beverage marketing practices geared to children and youth are out of balance with healthful diets and contribute to an environment that puts their health at risk.
- Food and beverage companies, restaurants, and marketers have underutilized potential to devote creativity and resources to develop and promote food, beverages, and meals that support healthful diets for children and youth.
- Achieving healthful diets for children and youth will require sustained, multi-sectoral, and integrated efforts that include industry leadership and initiative.
- Public policy programs and incentives do not currently have the support or authority to address many of the current and emerging marketing practices that influences the diets of children and youth." (p.10)

Recommendations from the Federal Trade Commission

On December 15, 2009, The Federal Trade Commission held a day-long forum on food marketing to children titled "Sizing Up Food Marketing and Childhood Obesity." Chairman Jon Leibowitz stated in his opening remarks that four key changes are needed in the current self-regulatory system:

- 1. Self-regulatory standards need to have the same criteria for healthy and less healthy foods and beverages.
- 2. CFBAI pledges should cover ALL forms of marketing to children, not just traditional ones such as TV advertising.
- 3. All food companies need to participate in the selfregulatory system, not just the current 16 companies.
- 4. More substantial changes needed in advertising directed to children. The efforts so far are genuine, but need to be expanded.

Recommendations from the WHO

On November 26, 2009, the Executive Board of the World Health Organization released a report by the Secretariat, entitled "Prevention and control of noncommunicable disease: *implementation of the global strategy*". This global strategy is a plan with six objectives; Objective 3 calls for interventions to reduce risk factors for noncommunicable diseases, including unhealthy diets and physical inactivity. It is under this objective that 12 specific recommendations on "the marketing of foods and non-alcoholic beverages to children" were laid out in an Annex to the report. These recommendations were formally adopted by WHO member states on May 21, 2010 (WHA, 2010). One limitation of these recommendations is that they are based on only four reviews of the literature: the IOM (2006) report, and three summaries of the literature by Hastings and his colleagues at the Centre for Social Marketing in the UK.

The evidence from the reviews "show that, although television remains an important medium, it is gradually being complemented by an increasingly multifaceted mix of marketing communications that focuses on branding and building relationships with consumers" (p.10). The 12 recommendations are:

"RECOMMENDATION 1. The policy aim should be to reduce the impact on children of marketing of foods high in saturated fats, *trans*-fatty acids, free sugars, or salt." (p.11)

"RECOMMENDATION 2. Given that the effectiveness of marketing is a function of exposure and power, the overall policy objective should be to reduce both the exposure of children to, and power of, marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt." (p.11)

"RECOMMENDATION 3. To achieve the policy aim and objective, Member States should consider different approaches, i.e., stepwise and comprehensive, to reduce marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt, to children." (p.12)

"RECOMMENDATION 4. Governments should set clear definitions for the key components of the policy, thereby allowing for a standard implementation process ..." (p.12)

"RECOMMENDATION 5. Settings where children gather should be free from all forms of marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt. Such settings include, but are not limited to, nurseries, schools, school grounds and pre-school centres, playgrounds, family and child clinics and paediatric services and during any sporting and cultural activities that are held on these premises." (p.12)

"RECOMMENDATION 6. Governments should be the key stakeholders in the development of policy and provide leadership, through a multistakeholder platform, for implementation, monitoring and evaluation." (p.12-13)

"RECOMMENDATION 7. Considering resources, benefits and burdens of all stakeholders involved, Member States should consider the most effective approach to reduce marketing to children of foods high in saturated fats, transfatty acids, free sugars, or salt. Any approach selected should be set within a framework developed to achieve the policy objective." (p.13)

"RECOMMENDATION 8. Member States should cooperate to put in place the means necessary to reduce the impact of cross-border marketing (in-flowing and out-flowing) of foods high in saturated fats, trans-fatty acids, free sugars, or salt to children in order to achieve the highest possible impact of any national policy." (p.13)

"RECOMMENDATION 9. The policy framework should specify enforcement mechanisms and establish systems for their implementation. In this respect, the framework should include clear definitions of sanctions and could include a system for reporting complaints." (p.13)

"RECOMMENDATION 10. All policy frameworks should include a monitoring system to ensure compliance with the objectives set out in the national policy, using clearly defined indicators." (p.14)

"RECOMMENDATION 11. The policy frameworks should also include a system to evaluate the impact and effectiveness of the policy on the overall aim, using clearly defined indicators." (p.14)

"RECOMMENDATION 12. Member States are encouraged to identify existing information on the extent, nature and effects of food marketing to children in their country. They are also encouraged to support further research in this area, especially research focused on implementation and evaluation of policies to reduce the impact on children of marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt." (p.15)

"Unhealthy food and beverages should not be marketed to children."

Chronic Disease Prevention Alliance of Canada Recommendations

The Chronic Disease Prevention Alliance of Canada (CPDAC) held a two-day consensus conference on March 4-5, 2008, funded by the Public Health Agency of Canada, the Canadian Institutes of Health Research and the Government of British Columbia. On March 28, 2008, CDPAC released its final policy statement on marketing to children. The policy statement reflected the deliberations by the members of the consensus conference on possible options, including the following:

- "We considered the Quebec model of banning all commercial advertising to children under the age of 13, but we were concerned that applying it Canada-wide at this time would be divisive and might eliminate the opportunities for positive marketing of healthy foods and beverages.
- We considered the UK and Swedish models of banning certain types of TV advertising to children, but we clearly see that TV advertising alone is a small piece of the puzzle.
- · We agree, however, and we think Canadians would agree, that unhealthy food and beverages should not be marketed to children.
- We recognize and celebrate all ongoing efforts to promote media literacy and to harness the power of marketing to promote active lifestyles and encourage healthy dietary choices." (p.3)

The following recommendations are included in the policy statement:

- Regulating advertising to children is just one part of the larger problem of childhood obesity, along with increasingly sedentary lifestyles, poverty and other factors that need to be addressed in an integrated solution.
- All forms of marketing directly to children and indirectly to parents and caregivers, must be considered.
- The federal government could regulate marketing to children on the Internet, by enforcing existing legislation, such as the Competition Act.
- The federal government should appoint a panel of health experts to define "healthy food and beverages" and determine a cut-off age for advertising to children.
- Once definitions and age thresholds have been determined, the government should implement and monitor legislation to limit the advertising of unhealthy foods and beverages to children within two years.

In conclusion, the policy statement notes that:

"If marketing of unhealthy food and beverages to children in Canada does not end within two years, we call for a ban on marketing of all food and beverages to children either directly or indirectly through their parents at that time." (p.4).

"The federal government should appoint a panel of health experts to define "healthy food and beverages" and determine a cut-off age for advertising to children."

C. Conclusions

In Canada, both existing legislation and the self-regulatory system apply to all advertising, including advertising to children. However, as stated in the CDPAC Consensus Statement and Recommendations "the system is geared towards advertising: there are no specific provisions regarding the many other forms of marketing food and beverages to children that exist in today's multi-media marketplace."

The current review of the evidence has shown:

- Canada has increasing rates of childhood overweight and obesity, and the diets of children are often not meeting current recommendations;
- · Food advertising is influencing children's food preferences, purchase requests and choices;
- The foods and beverages advertised are overwhelmingly those products considered to be highly processed, energy dense and nutrient poor;
- Advertising 'healthier' foods may have positive effects on children's diet quality, but few examples exist;
- "Incontrovertible proof" of a causal relationship between advertising to children and childhood obesity is not possible, nor would such research be ethical:
- The CCFBAI, Canada's present voluntary system, was not designed to address the growing rates of overweight and obesity among children today, and the newer array of marketing strategies, such as promotions using celebrities, web sites, packaging, point-of-purchase displays, emails, and text messages;
- The CFBAI in the U.S. has achieved only small changes in the quality and quantity of advertisements directed to children:
- In the U.S., 25% of the food and beverage ads on one children's network were from companies not participating in the CFBAI;
- Much of children's exposure to food and beverage advertising is coming from prime time (8 p.m.midnight) and non-children's programming.

There is a striking similarity in the recommendations from the most recent studies monitoring the progress of the CFBAI in the US. The Rudd Center's "Cereal FACTS Report", Kunkel's analysis for Children Now, CSPI's "Better for Who?", and presenters at the Federal Trade Commission's workshop "Sizing Up Food Marketing and Childhood Obesity", have called for the following:

- Standardized criteria across the food industry for defining "healthy" and "less healthy" foods and beverages;
- All food and beverage companies need to be involved in the self-regulatory system for it to work, not just some companies;
- Efforts by the food industry to self-regulate have produced very small changes in the nutritional quality of foods and beverages advertised to children. While these efforts are applauded, more substantial changes to the types and numbers of ads directed to children are needed:
- As marketing strategies expand to include using the Internet, text messages, emails, advergaming, sponsorship, celebrity endorsements, product placements, packaging, and so on, there needs to be more attention given to the impact of these types of marketing on specific subgroups of children and youth.

The general theme is that if self-regulatory efforts are not stepped-up, then the only recourse is a legislative approach. In the short term, it may be important to focus efforts on reaching consensus among health professionals, industry, consumers and government on a definition of "healthy foods and beverages", and to ask government to take a lead role in this process.

"Efforts by the food industry to self-regulate have produced very small changes in the nutritional quality of foods and beverages advertised to children. While these efforts are applauded, more substantial changes to the types and numbers of ads directed to children are needed."

VI. Position of Dietitians of Canada

It is the position of Dietitians of Canada that current advertising practices play an important role in shaping children's food and beverage choices, preferences, dietary patterns, food-related attitudes, beliefs, values, behaviours and health. There is sufficient evidence to support the need for an integrated, multi-sectoral approach to reduce the negative impact of food and beverage advertising on children as one factor influencing the healthy growth and development of children and as a component of children's rights to adequate, safe and nutritious foods.

The following key points summarize DC's recommendations with respect to advertising of food and beverages to children:

- The current system of self-regulation of advertising to children, although a starting point, is not sufficient to create a balance between the advertising of foods from Canada's Food Guide and highly processed foods. A step-wise approach is recommended beginning with closing the gaps in self-regulation by setting consistent science-based standards for criteria of healthy and less healthy foods and beverages. Establishment of these criteria should be led by the federal government with input from health-related non-government organizations, health professionals, consumers and the food industry. Once criteria are established, all food companies need to participate in the self-regulatory system.
- A two-to-three-year period to establish the criteria and apply the framework within a self-regulated system is reasonable to assess its impact at reducing advertising to children. There was a similar time frame allowed to implement mandatory food labelling. If self-regulation is determined at that time to be ineffective, using pre-established benchmarks set by the federal government, then a legislative approach would be essential.

- Restrictions on advertising to children [either self or government regulation] must apply to all forms of advertising including advergaming, product placements, celebrity endorsements, sponsorships, cartoon characters, marketing in schools, ads on cell phones, etc. Restrictions should apply to all settings where children normally gather including but not limited to nursery schools, public schools, school grounds and pre-school centres, playgrounds, recreation facilities, family and child clinics and pediatric services and during any sporting and cultural activities that are held on these premises.
- · All policy frameworks should specify enforcement mechanisms and establish systems for their implementation. In this respect, the framework should include clear definitions of sanctions and could include a system for reporting complaints.
- All policy frameworks should include a monitoring system to ensure compliance with the objectives set out in the national policy, using clearly defined indicators. The framework should also include a system to evaluate the impact and effectiveness of the policy on the overall aim, using clearly defined indicators.
- The advertising of "healthy" foods and beverages [using established science-based criteria] should be encouraged, as some research has shown that this may have positive effects on preferences for these products.
- Teaching media literacy skills to children may not be a strong option for attenuating the effects of food advertising directed to children. It is more effective and proactive to direct efforts towards limiting the amount of type of food advertising that reaches children, rather than committing resources to counteract the effects of food advertising to children.

References

- Adams J, Hennessy-Priest K, Ingimarsdottir S, Sheeshka J, Ostbye T, White M. Food advertising during children's television in Canada and the UK. Arch Dis Child. 2009;94:658-62.
- Advertising Standards Canada. Canadian children's food and beverage advertising initiative. 2007. Available from: http:// www.adstandards.com/en/childrensinitiative/default.htm
- Advertising Standards Canada. Canadian children's food and beverage advertising initiative: Year one compliance report. 2009. Available from: http://www.adstandards.com/en/childrensinitiative/yearOneComplianceReport.pdf
- Advertising Standards Canada. Canadian children's food and beverage advertising initiative. 2010a. Available online at: http://www.adstandards.com/en/childrensinitiative/default.htm
- Advertising Standards Canada. Canadian children's food and beverage advertising initiative: 2009 compliance report. 2010b. Available online at: http://www.adstandards.com/en/childrensinitiative/2009ComplianceReport.pdf. Accessed October, 2010.
- Ball GD, Marshall JD, McCargar LJ. Physical activity, aerobic fitness, self-perception, and dietary intake in at risk of overweight and normal weight children. CJDPR. 2005;66:162-9.
- Batada A, Wootan M, Arneson L. Better-for-Who? Revisiting company promises on food marketing to children. 2009. Center for Science in the Public Interest. Available from: http://cspinet.org/new/pdf/pledgereport.pdf
- Baylis K, Dhar T. Effect of the Quebec advertising ban on junk food expenditure. 2007. (unpublished). Available from: http://works.bepress.com/cgi/viewcontent.cgi?article=1014&context=kathy_baylis
- Bergsma LJ, Carney ME. Effectiveness of health-promoting media literacy education: A systematic review. Health Education Research. 2008;23:522-42.
- Buijzen M, Schuurman J, Bomhof E. Associations between children's television advertising exposure and their food consumption patterns: A household diary-survey study. Appetite. 2008;50:231-9.
- Buijzen M, Valkenburg PM. Observing purchase-related parent-child communication in retail environments: A developmental and socialization perspective. Hum Commun Res. 2008:34:50-69.
- Canadian Council of Food and Nutrition. Tracking Nutrition Trends VII Report. 2008.
- Canadian Institute for Health Information. Comparing activity and fruit and vegetable consumption by weight status among children and youth. CIHI Analysis in Brief. October 2009. Available at: http://secure.cihi.ca/cihiweb/products/bmi_ aib_e.pdf
- Chamberlain LJ, Wang Y, Robinson TN. Does children's screen time predict requests for advertised products? Crosssectional and Prospective Analyses. Arch Pediatr Adolesc Med. 2006;160:363-8.
- Chan K, McNeal J. Parent-child communications about advertising and consumption in China. Journal of Consumer Marketing. 2003;20:317-34.
- Chernin A. The effects of food marketing on children's preferences: Testing the moderating roles of age and gender. Ann Am Acad Polit SS. 2008;615:102-18.
- Chou S-Y, Rashad I, Grossman M. Fast-food restaurant advertising on television and its influence on childhood obesity. J Law Econ. 2008;51:599-618.
- Chronic Disease Prevention Alliance of Canada. Policy Consensus Forum on Obesity and the Impact of Marketing to Children. CDPAC Policy Consensus Statement, March 28, 2008. Available from: http://www.cdpac.ca/media. php?mid=433. Accessed October 2009.

- Coalition Poids. Press Release: Massive support by Canadians for government intervention in the fight against the obesity epidemic. June 16th, 2010. Available online at: http://www.cqpp.qc.ca/fr/salle-de-presse/communiqueset-publications/89/massive-support-by-canadians-for-government-intervention-in-the-fight-against-the-obesityepidemic. Accessed October 2010.
- Connor SM. Food-related advertising on preschool television: Building brand recognition in young viewers. Pediatrics. 2006;118:1478-85.
- Cook B. Food and beverage marketing to children. Toronto; Toronto Board of Health; 2008. Available from: http://www. toronto.ca/legdocs/mmis/2008/hl/bgrd/backgroundfile-11151.pdf
- Coon KA, Tucker KL. Television and children's consumption patterns. A review of the literature. Minerva Pediatr 2002;54:423-36.
- Dixon HG, Scully ML, Wakefield MA, White VM, Crawford DA. The effects of television advertisements for junk food versus nutritious food on children's food attitudes and preferences. Soc Sci Med. 2007;65:1311-23.
- Elliot C. Marketing fun foods: A profile and analysis of supermarket food messages targeted at children. Can Public Policy. 2008;34:259-73.
- Gantz W, Schwartz N, Angelini JR, Rideout V. Food for thought: Television food advertising to children in the United States. A Kaiser Family Foundation Report. Menlo CA: The Henry J. Kaiser Family Foundation, 2007.
- Graydon S. Made You Look How Advertising Works and Why You Should Know. Presentation at the Centre for Science in the Public Interest (Canada) Conference, Championing Public Health Nutrition, Ottawa, October 22-23, 2008. Available at: www.cspinet.org.
- Haerens L, Craeynest M, Deforche B, Maes L, Cardon G, De Bourdeaudhuij I. The contribution of psychosocial and home environmental factors in explaining eating behaviours in adolescents. Eu J Clin Nutr. 2008;62:51-9.
- Halford JCG, Boyland EJ, Hughes G, Oliveira LP, Dovey TM. Beyond-brand effect of television (TV) food advertisements/ commercials on caloric intake and food choice of 5-7-year-old children. Appetite. 2007;49:263-7.
- Halford JC, Boyland EJ, Hughes GM, Stacey L, McKean S, Dovey TM. Beyond-brand effect of television food advertisements on food choice in children: the effects of weight status. Public Health Nutr. 2007;11:897-904.
- Hanning RM, Woodruff SJ, Lambraki I, Jessup L, Driezen P, Murphy CC. Nutrient intakes and food consumption patterns among Ontario students in grades six, seven, and eight. Can J Public Health. 2007;98:12-6.
- Harris J. Children and food advertising effects: When are they old enough to resist? Presentation at the Centre for Science in the Public Interest (Canada) Conference, Championing Public Health Nutrition, Ottawa, October 22-23, 2008. Available at: www.cspinet.org.
- Harris JL, Bargh JA, Brownell KD. Priming effects of TV food advertising on eating behaviour. Health Psychol. 2009;28:404-13.
- Harris JL, Schwartz MB, Brownell KD, Sarda V, Weinberg ME, Speers S, et al. Cereal FACTS: Evaluating the nutrition quality and marketing of children's cereals. Rudd Center for Food Policy and Obesity. 2009. Available from: http://www. cerealfacts.org/media/Cereal_FACTS_Report.pdf.
- Hawkes C. Regulating and litigating in the public interest: regulating food marketing to young people worldwide: Trends and policy driver. Am J Public Health. 2007;97:1962-73.
- Hindin TJ, Contento IR, Gussow JD. A media literacy nutrition education curriculum for Head Start parents about the effects of television advertising on their children's food requests. J Am Diet Assoc. 2004;104:192-8.
- Holt D, Ippolito PM, Desrochers DM, Kelley CR. Children's exposure to TV advertising in 1977 and 2004. Information for the obesity debate. U.S. Federal Trade Commission, Bureau of Economics Staff Report. June 1, 2007. Available online at: http://www.ftc.gov/os/2007/06/cabecolor.pdf . Accessed January 2010.

- House of Commons Canada. Healthy Weights for Healthy Kids. Report of the Standing Committee on Health. March 2007.
- Institute of Medicine (U.S.). Committee on Food Marketing and the Diets of Children and Youth. J.M. McGinnis, J. Gootman, V.I. Kraak (eds). Food Marketing to Children and Youth: Threat or Opportunity? Washington: The National Academies Press, 2006.
- 11th International Congress on Obesity. Press release: Progress has been made on the marketing of food to children, but challenges remain. July 13, 2010. Available online at: http://www.ico2010.org/documents/9.childmarketingreleasefinal.pdf. Accessed October 2010.
- Jenkin G, Wilson N, Hermanson N. Identifying 'unhealthy' food advertising on television: a case study applying the UK Nutrient Profile model. Public Health Nutr. 2009;12(5):6114-623.
- Jones S, Fabrianesi B. Gross for kids but good for parents: differing messages in advertisements for the same products. Pub Health Nutr. 2008;11:588-95.
- Kaiser Family Foundation. The role of media in childhood obesity. A Kaiser Family Foundation Issue Brief. Menlo CA: The Henry J. Kaiser Family Foundation, 2004.
- Kaiser Family Foundation. Children's exposure to food advertising on television: A side-by-side comparison of results from recent studies by the Federal Trade Commission and Kaiser Family Foundation. Menlo CA: The Henry J. Kaiser Family Foundation, 2007. Available online at: www.kff.org/entmedia/upload/7654.pdf. Accessed Jan. 2010.
- Kelly B, Chapman K. Food references and marketing to children in Australian magazines: A content analysis. Health Promot Int. 2007;22:284-91.
- Kelly B, Halford JCG, Boyland E, Chapman K, Bautista-Castaño I, Berg C, et al. Television food advertising to children: A global perspective. Am J Public Health. 2010;100(9):1730-5.
- Kelly B, Hattersley L, King L, Flood V. Persuasive food marketing to children: Use of cartoons and competitions in Australian commercial television advertisements. Health Promot Int. 2008;23:337-44.
- King L, Hill A. Magazine adverts for healthy and less healthy foods: Effects on recall but not hunger or food choice by preadolescent children. Appetite. 2008;51:194-7.
- Klepp K-I, Wind M, de Bourdeaudhuij I, Rodrigo CP, Due P, Bjelland M, Brug J. TV viewing and exposure to food-related commercials among European school children associations with fruit and vegetable intake: a cross sectional study. Int J Behav Nutr Phys Act. 2007;4:46-53.
- Kunkel D, McKinley C, Wright P. The Impact of Industry Self-Regulation on the Nutritional Quality of Food Advertised on Television to Children. Report Commissioned by Children Now, December 2009.
- Leibowitz J. Federal Trade Commission (U.S.) Sizing Up: Food marketing and childhood obesity. Webinar held Dec. 15, 2009. Available at: http://htc-01.media.globix.net/COMP008760MOD1/ftc_web/FTCindex.html#Dec15_09.
- Livingstone S, Helsper EJ. Does advertising literacy mediate the effects of advertising on children? A critical examination of two Linked research literatures in relation to obesity and food choice. J Commun. 2006;56:560-84.
- Magnus A, Haby MM, Carter R, Swinburn B. The cost-effectiveness of removing television advertising of high-fat and/or high-sugar food and beverages to Australian children. Int J Obese. 2009;33:1094-102.
- Oates C, Blades M, Gunter B. Children and television advertising: When do they understand persuasive intent? Journal of Consumer Behaviour. 2002;1:238-45.
- Owen L, Auty S, Lewis C, Berridge D. Children's understanding of advertising: an investigation using verbal and pictorially cued methods. Infant Child Dev. 2007;16:617-28.
- Pempek TA, Calvert SL. Tipping the balance: Use of advergames to promote consumption of nutritious foods and beverages by low-income African American children. Arch Pediatr Adolesc Med. 2009;163:633-7.

- Public Health Agency of Canada. Curbing Childhood Obesity. A Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights. September 2010.
- Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence-based medicine: What it is and what it isn't. BMJ. 1996;312:71-2.
- Scheibe C. Using media literacy to improve young children's understanding of food advertising. [Abstract only]. Paper presented at the Annual Meeting of the International Communication Association, Montreal, Quebec, 2009.
- Shields M. Overweight Canadian children and adolescents (Statistics Canada). 2005. Available online at: http://www. statcan.gc.ca/pub/82-620-m/2005001/pdf/4193660-eng.pdf. Accessed October 2009.
- Tremblay M, Sheilds M, Laviolette M, Craig CL, Janssen I, Gorber SC. Fitness of Canadian children and youth: Results from the 2007-2009 Canadian Health Measures Survey. Health Reports. Statistics Canada Catelogue no. 82-003-XPE. 2010;21(1):1-13.
- Utter J, Scragg R, Schaff D. Associations between television viewing and consumption of commonly advertised foods among New Zealand children and young adolescents. Public Health Nutr. 2006;9: 606-12.
- Valkenburg PM. Media and Youth Consumerism. J Adolesc Health. 2000;27:52-6.
- Veugelers PJ, Fitzgerald JL, Johnston E. Dietary intake and risk factors for poor diet quality in among children in Nova Scotia. Can J Public Health. 2005;96:212-6.
- Weber K, Story M, Harnack L. Internet food marketing strategies aimed at children and adolescents: A content analysis of food and beverage brand web sites. J Am Diet Assoc. 2006;106:1463-6.
- 63rd World Health Assembly. WA63.14 Marketing of food and non-alcoholic beverages to children. Eighth plenary meeting, agenda item 11.9. May 21, 2010. Available online at: http://apps.who.int/gb/ebwha/pdf_files/WHA63/ A63_R14-en.pdf. Accessed October 2010.

Acknowledgements

Dietitians of Canada wishes to acknowledge Judy Sheeshka, PhD, RD, University of Guelph, for authoring the paper with support from Mary Anne Dick, RD, Doctoral Student, and dietetic students Megan Skinner and Annalee Winter. A special thank you Lynda Corby, MSc, MEd, RD, FDC and Corinne Eisenbraun, MA, RD, Dietitians of Canada, for guiding the development of the position paper and to the advisory committee who included: Carol Dombrow, RD; Jean Harvey, MHSc, RD; Barb Ledermann, MSc, RD; Laurie A. Wadsworth, PhD, PDt, FDC; and Sharon Zeiler, MBA, RD. There were many members who provided input into the 2008 and 2010 Discussion Papers on this topic which preceded this position paper.

Appendix A: Current Members of the Canadian Children's Food and Beverage Marketing Initiative

- Cadbury Adams Canada Inc 1.
- 2. Campbell Company of Canada
- 3. Coca-Cola Ltd.
- General Mills Canada Corporation 4.
- 5. Hershey Canada Inc.
- Janes Family Foods Inc.
- 7. Kellogg Canada Inc.
- Kraft Canada Inc.
- 9. Mars Canada Inc.
- 10. McCain Foods (Canada)
- 11. McDonald's Restaurant of Canada
- 12. Nestle Canada Inc.
- 13. Parmalat Canada
- 14. PepsiCo Canada Inc.
- 15. Unilever Canada Inc.
- 16. Weston Bakeries Limited
- 17. *Burger King Restaurants of Canada, Inc.
- 18. *Ferrerro Canada Ltd.
- 19. *Post Foods Canada Corp.

Members of Food and Consumer Products of Canada Not Involved in Marketing Initiative (Food Ones Only)

Abbott Laboratories Limited - Abbott NutritionCanada

ACH Food Companies, Inc.

Barilla America Inc.

Burnbrae Farms Ltd.

C.B. Powell Ltd.

Canada Dry Mott's Inc.

Cara Operations Limited

Cavendish Farms

Charcuterie La Tour Eiffel Inc.

Church & Dwight Canada

Clover Leaf Seafoods Inc.

Club Coffee

The Coming Home Foods Company

ConAgra Foods Canada

Dainty Foods

Danone Inc.

Dare Foods Limited

Dole Foods of Canada Ltd.

Dr. Oetker Canada Ltd.

Gay Lea Foods Co-operative Limited

Good Humor – Breyers

H.J. Heinz Company of Canada LP

High Liner Foods Incorporated

Humpty Dumpty Snack Foods Inc.

Kingsmill Foods Co. Ltd.

Lindt & Sprüngli (Canada), Inc.

McCormick Canada

Mead Johnson Nutrition (Canada) Co.

Mortimer's Fine Foods

Ocean Nutrition

Ocean Spray International Services, Inc.

Old Dutch Foods Ltd.

Olympic Dairy Products Inc.

Pinnacle Foods Canada Corporation

Post Foods Canada Corp.

Reinhart Foods Limited

Ronzoni Foods Canada Corporation

Sara Lee Foodservice Ltd.

Scotsburn Dairy Group

Select Brand Distributors Inc.

Smucker Foods of Canada Co.

Snack Alliance Inc.

Starbucks Coffee Canada

Tetlev Canada Inc.

Ultima Foods Inc.

Unico Inc.

V-H Foods

Wrigley Canada

^{* &}quot;subsequent to the launch of the CAI and are not covered in the 2008 reporting period".



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