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# Advertising and marketing practices on child obesity

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[1] The views expressed in this paper are those of the author and are not necessarily those of any government body or the Swedish National Food Administration.

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# Executive Summary

## Background

The evidence of rising levels of obesity among children in the EU and many other countries in the developed world is beyond question. But the reasons of the different causes are less clear.

It is commonly known that the majority of foods advertised to children are 'highly processed', i.e. high in fat and sugar and low in nutrients. The consumption of these foods is seen as not only undermining parents' dietary preferences but also contributing to weight gain and associated health problems among children. The real concern is that more than 80% of obese adolescents sustain their obesity in adulthood, primarily because dietary habits that are developed when young persist over time.

The issue is not helped by an over-emotive demonising of High in Fat Salt and Sugar (HFSS) food as the (sole) cause of obesity and its related health problems. The assumption of a direct cause-and-effect relationship is usually inherent in these criticisms, i.e. brand advertising is the direct cause of the weight and health problems and this appears to be widely accepted by critics and by some policy makers. However, the causal factors behind these problems may be more complex. While the problem of obesity is very real and needs to be remedied, the ping pointing of the causes and related potentially effective solutions are by no means straightforward.

There is little evidence of a direct link between obesity levels and advertising. Television advertising is one of the many sources of influence on children's food choices, partly due to the sedentary nature of television viewing which is associated with frequent snacking, pre-prepared meals and/or fast food consumption. Researchers and experts in the public health sector generally agree that multiple factors account for childhood obesity, including individual, social, environmental and cultural factors, all of which interact in complex ways not yet fully understood.

Growing public concern over rising levels of obesity among children has triggered many debates in the EU on possible policy measures to help combat obesity. Multiple stakeholders, with competing interests, are involved in this public debate. Any kind of proposed relationship between obesity and advertising tends to be as emotive as evidential, with for-and-against camps lined up to defend entrenched positions. However, it does seem fair to argue that while advertising tends to affect knowledge, preferences and behaviour, many other issues, such as peer pressure, quality of life, in-school food services, nearby retail outlets and social class criteria, exacerbate the problem.

The main arguments concerning the perceived detrimental effects of advertising on health have recently centred on the advertising of HFSS food and beverages and the assumption that this is a major cause of unhealthy dietary habits, obesity and nutritional problems. The underlying assumption is that a range of societal problems will therefore be removed by the imposition of either stringent restrictions or bans on advertising, which is of course the most visible and accessible form of external influence.

The current regulatory pressure on food marketing practices relies to a significant extent on the understanding of the scientific evidence base regarding the impact of food advertising/marketing on children's food preferences, choices and consumption.

In this context, this report specifically addresses one putative contributing factor of childhood obesity, namely food promotion, particularly television advertising of foods High in Fat, Salt or Sugar (HFSS).

There have literally been hundreds of articles published in this area over the last 3-4 decades, most of which come from the USA. Among food marketing practices, television advertising was and still is the subject of most research. This led to a number of global reviews, which have been used as a basis for policy decision-making since the early 2000s.

In marketing and social sciences, it is very unlikely that one side is wholly right or wholly wrong. The purpose of this review was not to weigh one paper against another but to select well-supported arguments as a foundation for action.

The balance of evidence does support the conclusion that **television advertising has a modest direct effect on children's food preferences and choices.**

There are promotional effects at brand level, distinct from product category level but the evidence for promotional effects at the level of overall diet is thin at best.

The balance of evidence does not support that television advertising (or food promotion more generally) has larger, indirect effects than other factors affecting children's lives. More importantly, there is no evidence weighing these factors against each other so as to determine their relative influence.

The evidence that reducing exposure to advertising has beneficial consequences is also mixed. Research on television advertising also does not offer straightforward guidance regarding the degree of restriction, partly because there is no easy translation from amount of advertising viewed to dietary consequences, and partly because little research has evaluated the relative importance of food advertising by comparison with other influences on diet.

Research also provides little guidance regarding the influence of forms of promotion other than television advertising because this has rarely been examined, notwithstanding the fast changing array of promotional strategies, particularly for the internet, games, mobile phone and so on.

**From evidence to policy**

In the EU, regulatory measures or self-regulatory codes already include restrictive measures on food advertising to children. Sweden, most notably, has the strictest regulation to implement the ban of advertisement to children, which has been in place since 1982. But empirical evidence also shows that advertising bans do not affect obesity rates. Despite bans on advertising to children in Sweden, Norway and Québec, childhood obesity rates in these countries/regions are not lower than in other similar countries/regions where such advertising restrictions do not exist, and continue to rise inexorably. There is no evidence on the effectiveness of banning food advertising from children's television since very few countries have a ban on food advertising.

The European food industries have already taken active steps to create principles of marketing and advertising as the basis for national norms to be used by governments, companies, and industry associations and such efforts are continuing. Very recently, eleven major food and beverage companies announced a common commitment to change the way they advertise to children. This move follows recent calls by the EU for the food industry to use commercial communications to support parents in making the right diet and lifestyle choices for their children.

Under the *EU Pledge* programme, participating companies are making individual commitments on food and beverage advertising to children.

## Policy options

Governments are ostensibly under pressure to be seen to act on consumers' concerns. Restricting or banning advertising to children who are considered particularly vulnerable to marketing manipulation, as a direct attempt to change eating behaviour may seem an easy way of showing that a government takes such issues seriously.

The temptation to seek simple solutions – such as scapegoating television or computer games as the major culprits, instead of acknowledging that multiple factors are at work - distracts attention from the breadth of strategies required for sustained and targeted interventions, as well as from the diversity of research required to guide their implementation.

However, the efficacy of such actions is doubtful because of the lack of supporting factual evidence.

A ban on advertising foods high in fat, sugar and salt to children is not the only policy under consideration, particularly as the evidence is far from clear that bans are effective in altering children's diets. Numerous parallel strategies, including calling for marketing resources to promote healthy diets, improving food labelling systems, and developing explicit industry self-regulatory guidelines for new forms of marketing communications are also under consideration. Research and policy advisors have also proposed media literacy programmes to enhance children's critical analysis of marketing, targeting parents to encourage them to modify their own, and their children's, diets. Alternatives to prolonged exposure to television on the part of parents and children, making healthier foods cheaper, promoting exercise and healthy lifestyles, and so forth, are also encouraged.

But also, as there is no proven link between TV advertising and obesity, there is no scientific evidence to demonstrate that advertising restrictions could impact the incidence of obesity. TV advertising is already a highly regulated area. The debates resulted in the content harmonisation of existing self-regulatory measures across the EU and their reinforcement. The debate now focuses on how to best encourage the use of advertising to promote balanced diets and healthy lifestyles. Investments have also been considered to raise consumer awareness and to develop educational programmes for children.

But, there is, at present, no clear consensus regarding the range of influences on children's food choice, though these are often taken to include factors such as gender, food costs, birth order, cultural meanings of food, obesity levels, family eating habits, parental regulation of media, parental mediation of advertising, peer norms, pro-health messages and pester power. Yet it should be acknowledged that the evidence for their likely effectiveness is variable, and requires further research.

In relation to the question of whether television advertising contributes to the problem of childhood obesity, a risk-based approach would recognise, and weigh, the role of television advertising, placing it in a multi-factor context. As argued, this approach would support taking policy action on television advertising aimed specifically at children as one among a number of important ways forward.

# 1. Introduction: tackling obesity

Rising overweight and obesity among the whole EU population, and more specifically among children, has been identified as a problem that will have profound long-term consequences for health and well being and major costs to the health budget and the wider economy.

Overweight and obesity affect more than half of the adult population in most if not all EU member states, and high prevalence rates of about 75% of the population occur in some countries such as the Czech Republic, Germany and Greece. Overweight and obesity have become a major cause of avoidable disease and reduced life expectancy due to increased occurrence of disorders such as cardiovascular disease, 'type 2' diabetes, hypertension, and some forms of cancer.

The foundations of the obesity increase lay in childhood and adolescence. Data collected by the International Obesity Task Force[1] indicate that the prevalence of overweight in children aged 7-11 years is in the range of 10-20% in most European countries and reaches some 27% of the population in the UK and more than 30% in several Southern European countries (Figure A).

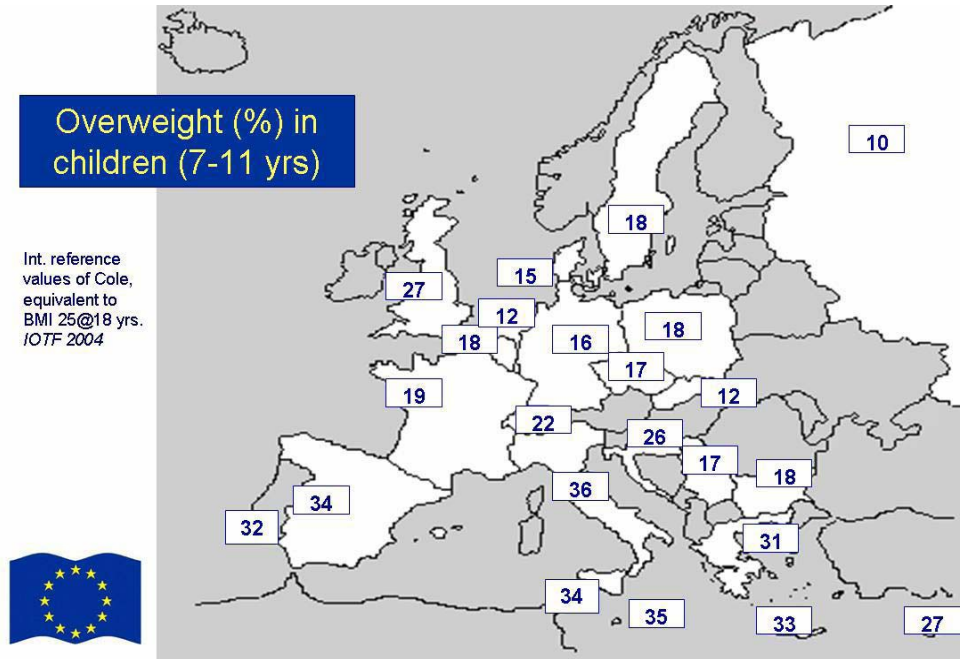



**Figure A: Percentage of overweight children aged 7-11 years across Europe (drawn from data collected by the International Obesity Task Force)**

*(Source: Koletzko, 2006)*

This alarming epidemic of obesity in the European population obviously reflects an imbalance between energy needs and energy supply in large parts of the population, resulting from a wide range of changes in lifestyle. While an individual's risk of overweight and obesity is modulated by a complex combination of genetic, biological societal and psychosocial variables, the overall rise in prevalence may be linked to a marked reduction of physical activity associated with increasing mechanization and automation of both work and private life. Mankind evolved from a world of relative food scarcity and hard physical work – obesity is one of the penalties of the modern world, where energy-dense food is abundant as well as labour-saving technologies.

[1] (www.iotf.org).

An unhealthy weight is often seen as a result of individual choice of diet, exercise and lifestyle. Although at the heart of the problem there is an imbalance between energy intake and energy expenditure, the physical and psychological drivers inherent in human biology and behaviour are far more complex than the simple portrayal of obesity as an issue of personal willpower – eating too much and doing too little.

As many reports demonstrate, there is no quick and easy solution to tackling obesity. A number of projects have assembled evidence and expertise from academic disciplines as diverse as epidemiology, food science, genetics, psychology and sociology, and from professionals and interested organisations within and beyond governments. All provide insights into the complexity of the determinants of obesity and their interrelationships.

The UK Foresight Report[2] is the most recent and comprehensive attempt to create a shared understanding of the relationships between key factors influencing levels of obesity and their relative importance.

The authors structured the report in several sections, including the "scale of the problem", the "causes of obesity" and "building a sustainable response". They recognise that "the causes of obesity are complex and multifaceted and that there is a continuing debate about the relative importance of each cause or variable. In addition, the interactions between different variables are poorly understood. A critical aim of the Foresight Tackling Obesities project has been to review and integrate evidence across disciplinary boundaries, rather than to focus on single disciplines." Four key determinants of obesity are identified:

- the level of primary appetite control;
- the force of dietary habits;
- the level of physical activity; and
- the level of psychological ambivalence.

This leads to suggestions for possible intervention points, as shown in Table 1. The table shows that the role of food marketing and advertising practices is only one among many other factors and that it needs to be put into a much broader perspective.

[2] On 17 October 2007, the UK Government's Foresight Report on Tackling Obesity was released by the Department for Innovation, Universities and Skills (DIUS). Started in July 2005, the study aims to produce "a long term vision of how we can deliver a sustainable response to the prevalence of obesity in the UK over the next 40 years

**Table 1: Tackling obesity: Summary of key intervention points**

*(Source: Foresight Report, 2007)*

| **The four key determinants of obesity:** | ▸ | Numerous obesity determinants link to these variables |
|---|---|---|
| 1. The level of primary appetite control | ▸ | • Genetic predisposition<br>• Level of recreational activity<br>• Walkability of the living environment |
| 2. The force of dietary habits | ▸ | • Energy density of food<br>• Cost of food |
| 3. The level of physical activity | ▸ | • Level of self-esteem<br>• Education |
| 4. The level of psychological ambivalence | ▸ | • Media consumption |

## 2. Children's food choice and obesity: a complex issue with multiple causes

Research literature contains many attempts to model the process of food choice. Many factors are directly influencing children's food choice at different levels. Most reviews also agree that these multiple factors operate at multiple levels. Hence, it is too simple to state that the multiple factors each, separately, play a role in accounting for variation in food choice.

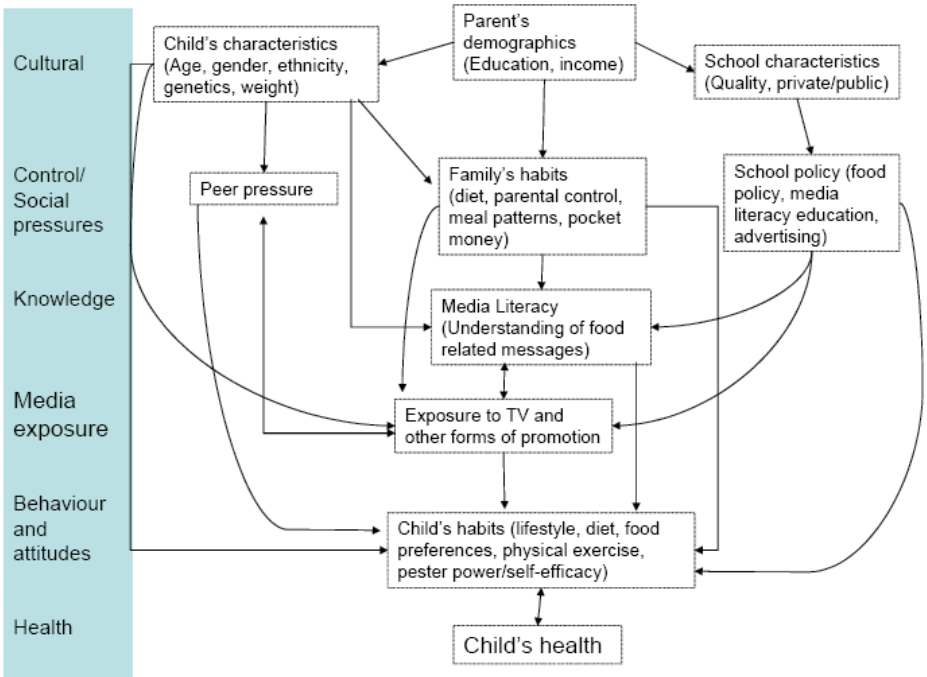
There are various ways of classifying the factors influencing eating behaviour. As an example, eating behaviour of adults can be classified into 4 levels (Story et al., 2002), thus developing an appropriate but complex multi-level model of factors that directly influence food choices. Many of these factors also apply also to children; the different levels and factors are as follows:

- Individual (intrapersonal): psychosocial, biological, and behavioural (lifestyle) factors.
- Social environmental (interpersonal): family, friends, and peer networks.
- Physical environment (community): e.g. accessibility and lack of foods, school environment, vending machines.
- Macrosystem (societal): mass media and advertising, social and cultural norms, production and distribution systems, policies, and pricing systems.

It remains for future research to 'evaluate the relative contribution of each domain [social, physiological, etc] to the development of food choice patterns, food preferences, and eating style' (Livingstone, 2005).

The UK Foresight report also analyses in great detail the various determinants of the obesogenic environment, including factors influencing children's food choices. Figure 1 is an attempt to map the relations among the various variables, showing both the direct and indirect influences and, hence, the complexity of the issue.

**Figure 1 Model of factors that influence children's food choice, habits and health**




*(Source: UK Foresight report 2007)*

Advertising is undoubtedly only one in a wide range of factors affecting children's food choice, health and obesity. From that, it can be easily understood that advertising – or television viewing more generally – has its effect *indirectly*, mediated alongside and through other variables, as well as *directly*.

# 3. Exposure to advertising and marketing: influence on children's food preferences

## 3.1. Research evidence of media effects on children's food preferences

The research evidence regarding the effects of food promotion to children extends over forty years. Most research in this field, as in other investigations of media effects, broadly follows Lasswell's original model (1948), asking '*who says what to whom on what channel and with what effect?*' In practice, each element of the question makes a difference. Consequently, evidence must be carefully evaluated in relation to the specific research question asked, as illustrated in Table 2.

**Table 2 : Typical approach and methods used in the research of media effects**
*(Source: Livingstone, 2004)*

| Question | Typical methods | Main factors researched |
|---|---|---|
| Who | Analysis of range of message sources | Advertisers, broadcasters, health education bodies, governments, etc. |
| Says what | Message (content) analysis | Persuasive strategies, balance of un/healthy messages, food labelling, etc. |
| To whom | Range of sampling strategies | Children (variously defined), young people, parents, peers; by age, gender, ethnicity, socio-economic status, etc. |
| On what channel | Mapping of range of promotional channels (extent, expenditure) | Television advertising, public service messages, signs and packaging, merchandising, cross-promotions, etc. |
| With what effect | Experiments, quasi-experiments, observations, interviews, surveys | Short/long-term effects, direct/indirect effects, cognitive/behavioural/emotional effects, effects on food knowledge, purchase intention, preference, attitudes and liking, purchase behaviour, pester power, memory for advertisements and products, etc. |

Despite the many studies carried out and the range of relevant factors considered, the body of available research on food promotion to children contains a number of shortcomings, difficulties, gaps and biases. In assessing the research base for the policy debate, Livingstone (2005) identified, among others, the following:

- Most research is conducted in America, with little research in other countries or cultural contexts.
- Most research concerns television advertising solely, with little on other promotional channels or on the effects of cross-promotion.
- Most research concerns direct effects rather than indirect effects.
- More research examines the effects of promoting unhealthy rather than healthy foods.

- Children are defined differently in different studies (age range, gender, sample size, etc).
- Additional differences in food choices, cultural contexts, kinds of media exposure, etc. add to the difficulty of comparing results and conclusions.
- Many studies are designed to identify correlations not causes.
- Possible confounding factors tend to be examined where convenient to measure (e.g. age, gender) while key factors may be neglected (e.g. parental diet, peers' exposure to media, peer norms).
- Restrictions on research funding are evident in the plethora of studies with small samples and simple measures, in the paucity of longitudinal designs and the lack of good replications.

Much of the research has been funded by public bodies, conducted by independent researchers and published in peer-reviewed journals available in the public domain. Given the considerable number of studies addressing the core question of advertising effects, it may surely be argued that sufficient knowledge is now available to determine the 'balance of probabilities' if not to reach a judgement 'beyond all reasonable doubt'.

Quite positive also is the fact that most research has been conducted on the direct effects on (young) children of the promotion of 'unhealthy foods' via television advertising, this being precisely where the most public and policy concern is focused.

Observational studies are not sufficient to demonstrate causality and experiments are often criticised for not realistically reflect the conditions of everyday life (in other words, their findings have low external validity and cannot be generalised).

**Table 3: Some important comments on research methodology**

| | |
|---|---|
| Step 1 | Establish a correlation between the supposed influence and the supposed effect, preferably under realistic conditions (through observations or a survey) |
| Step 2 | Examine the hypothesised causal relations between the two under controlled conditions to eliminate biases and confounding factors (intervention study) |
| **Only an experiment can demonstrate causality, as only an experiment controls for the many confounding factors.** | |

In short, this explains why research findings on media effects on food preferences are so often argued and debated.

### 3.2. Effects of food promotion on children: six possible conclusions

After carefully and rigorously analysing all major reviews available as well as a number of additional publications, Livingstone (2004) proposes to classify the review of evidence according to 6 possible outcomes and conclusions (see Table 4).

**Table 4 : The six possible conclusions on the effects of food promotion on children**
*(Source: Livingstone, 2004)*

| | |
|---|---|
| **1. Don't know** | Given the methodological problems, the available research evidence is too flawed for robust conclusions to be drawn that might reasonably inform policy. |

**If this is rejected, at least on the basis of 'a balance of probabilities', one must decide which of the following two conclusions has the greater merit**

▼

| | |
|---|---|
| **2. Pro-effects** | The available research evidence shows that food promotion has a causal effect on children's food preferences, knowledge and behaviour. |
| **3. No effects** | Notwithstanding a few exceptions, the weight of the available research evidence suggests that food promotion has no significant effect on children's food preferences, knowledge or behaviour. |

**The above three conclusions are clearly mutually incompatible.**

**The 'pro-effects' conclusion, if advocated, may be subdivided into a claim regarding the extent or size of the effects, leading to the following conclusions**

▼

| | |
|---|---|
| **4. Modest effects** | The available research evidence shows that food promotion has a causal effect on children's food preferences, knowledge and behaviour, though this is a modest effect by comparison with more influential factors such as parental diet, peer pressure, exercise ... |
| **5. Strong effects** | The available research evidence shows that food promotion has a strong causal effect on children's food preferences, knowledge and behaviour, particularly in comparison with other factors. |
| **Characteristic of the debate on media effects is that experiments do show effects,**<br>**BUT their relevance to the real-world context can be contested**<br>▼ | |
| **6. No real effects** | Research conducted using experimental designs does reveal effects of food promotion (mainly television advertising), but these occur only in artificial circumstances and so cannot be generalised from the peculiar situation of the 'laboratory experiment' to the reality of children's everyday lives. |

Notwithstanding the many contested arguments regarding methodology, comprehensiveness, bias, and so forth, a careful reading of apparently conflicting reports suggests that an **implicit consensus** exists **in favour of modest effects**.

In the EU, the most comprehensive reviews have been conducted in the UK. Ofcom (2004, 2006) and Hastings (2003) reports independently reviewed a wide range of literature available in English over the past 20 years, and can be considered the most comprehensive research ever done on this subject. Another important one carried out by the Institute of Medicine in the USA (2005) confirms their findings.

The main outcomes of these reviews are summarised in Table 5.

**Table 5: Influence of advertising on children food preferences. Summary of the outcome of the most important reviews**

| **Main findings** |
|---|
| **The Hastings study (2003)**<br>Comprehensive and systematic review of the evidence regarding food promotion to children prepared for the UK Food Standards Agency |
| "There is modest evidence that food promotion has an effect on children's nutritional knowledge. Overall, the weight of evidence suggests that food promotion may have little influence on children's general perceptions of what constitutes a healthy diet, but that it can, in certain contexts, have an effect on more specific types of nutritional knowledge. |
| There is reasonably strong evidence that food promotion has an effect on children's food preferences. Overall, the better quality studies which addressed this question were more likely to find effects and the lower quality studies were not. |
| There is strong evidence that food promotion influences children's food purchase-related behaviour. All the studies which addressed this question found evidence of effects. In all except one study, the effect was in the direction of increasing purchase requests for foods high in fat, sugar or salt; in the remaining study, the effect was in the direction of increasing low fat snack sales, in line with the promotional stimulus examined in the study. |
| There is modest evidence that food promotion has an effect on consumption behaviour. Effects were sometimes inconsistent and were not found in all the studies, but were found in sufficient studies to suggest that food promotion can, in some contexts, influence children's food consumption. |
| There is reasonably strong evidence of significant associations between television viewing and diet, and between television viewing and health-related variables (obesity and cholesterol). The majority of studies which examine this question measure only television viewing in general, which raises questions about whether the effect is attributable to food advertising, programme content or the sedentary nature of the activity. |
| There is evidence from higher and lower quality studies that food promotion or television viewing significantly influences children's food behaviour and diet independently of other factors known to influence children's food behaviour and diet. However, there is little evidence to show whether the influence of food promotion on children's food behaviour and diet is greater or lesser than that of other factors. |

| |
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| There is evidence that food promotion causes both brand switching *and* category effects in relation to food preferences and consumption behaviour. Although no study provides a thorough comparison of the strength of both types of effect, both types of effect have been examined independently, and there is reasonably strong evidence that both occur. In other words, the effects of food promotion are not limited to brand switching. |
| There is also evidence that promotion can have a beneficial effect, as in the vending machine study (French et al 2001) where promotion was shown to encourage a shift to lower fat options. |
| There is no prima facie reason to assume that promotion will undermine children's dietary health; it can influence it, but this influence could just as easily be positive as negative. |
| **The Ofcom report (2004)**<br>Literature review on the effect of food advertising on children's food choice and, ultimately, children's obesity, examined in the context of the other presumed factors contributing to the explanation for rising levels of obesity |
| The study concluded that television advertising has a 'modest direct effect' on children's food preferences, consumption and behaviour. |
| Indirect effects are likely to be larger, but there was insufficient evidence to determine the relative size of the effect of TV advertising on children's food choice, by comparison with other relevant factors such as exercise, trends in family eating habits inside and outside the home, parents' demographics, school policy, public understanding of nutrition, food labelling and other forms of food promotion. |
| The survey also examined parents' attitudes to television advertising and regulation, and found that parents accept responsibility for their children's diets, but believe that increased regulation of food advertising would help them to encourage their children to eat more healthily. |
| **The Ofcom report (2006)**<br>Update of its 2004 report in order to take into account the fast growing amount of most recent research. The focus is on academic research, primarily empirical, preferably published in high quality, peer-reviewed journals, in the past two years. About 180 new publications were identified. The new and updated studies confirm the original findings. |
| There is a growing consensus that advertising works in its influence on children's food preferences, diet and health. Given that most advertising to children is for products high in salt, sugar and fat, this influence is harmful to children's health. |
| Expert commentators are now convinced that television viewing plays a role in contributing to the problem of children's unhealthy diet. |
| Very little is known about forms of food promotion other than in television advertising. This is a crucial gap as promotional strategies diversify. |
| The experimental evidence suggests that television advertising has a modest direct effect on children's (age 2-11) food preferences by demonstrating that those exposed to particular messages are influenced in their food preferences when compared with those who did not see those messages. |

| |
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| Although experiments identify causal relations between advertising and food choice, it remains unclear how these operate along side the complex conditions of daily life at home and school. |
| A growing body of well-conducted national and international surveys shows a modest but consistent association between overall television exposure and weight/obesity. This applies among children and teenagers. |
| It remains unclear whether this association reflects the specific influence of exposure to television advertising or whether it is due to increased snacking while viewing or to a sedentary lifestyle with reduced exercise. |
| In both experimental and survey studies, the measured effects of advertising/television on food choices are small. Estimates vary, but some suggest that such exposure accounts for some 2% of the variation in food choice/obesity. |
| Cumulatively, this may make an appreciable difference to the number of children who fall into the 'obese category'. Further, this effect may be larger than the measurable effect of exercise and some other factors. |
| Multiple factors account for childhood obesity. Television viewing/advertising is one among many influences on children's food choices. These other factors include individual, social, environmental and cultural factors, all of which interact in complex ways not yet well understood. |
| Rather than asking simply, does advertising influence children's diet, it is recommended that research and policy instead asks, what are the multiple factors that contribute to children's diet and, within this broader picture, what is the role of food advertising/ promotion? |
| A range of interventions are now being tested, in the concerted effort to improve children's health. Many call for more positive health messages, and for a reduction in the promotion of foods high in sugar, salt and fat, as part of this wider effort. |
| **The IOM report (USA, 2005)**<br>The Institute of Medicine published a wide-ranging and substantial review requested by Congress and sponsored by the Centre for Disease Control (CDC).<br>The committee assessed hundreds of relevant studies and rigorously reviewed evidence from more than 120 of the best designed to determine what effects marketing may have on children's diets and health. Most of these studies focused only on television advertising, a shortcoming that should be addressed in future research, given that marketing strategies are rapidly evolving and now employ many tactics beyond television advertising. |
| The report finds strong evidence that television advertising influences the food and beverage preferences and purchase requests of children ages 2 through 11 years old and affects their consumption habits, at least over the short term. Most advertising geared toward children promotes high-calorie, low-nutrient foods, beverages, and meals, which, the committee concluded, influences children to request and choose these products. |
| There is not enough evidence to determine the extent to which marketing influences the preferences and consumption habits of 12- to 18-year-olds; too few studies have focused on teens. |

| |
|---|
| The evidence on whether television advertising directly affects children's long-term dietary patterns is limited and less conclusive. However, nutrition studies show that America's children and youth are consuming too many calories and too much added sugar, fat, and salt. Moreover, they are consuming less-than-recommended amounts of many key nutrients, including calcium, vitamin E, and fibre. |
| The report notes that available studies are too limited to determine whether television advertising is a direct cause of obesity among children. However, the statistical association between ad viewing and obesity is seen as strong. Even a small influence would amount to a substantial impact when spread across the entire population. |

However, the evidence base for the relative influence of television advertising compared with other influences is small-to-absent.

### 3.3. Evidence of impact on food preferences and choices

The balance of evidence does support the conclusion that **television advertising has a modest direct effect on children's food choices**.

**Box 1: Evidence of impact of advertising on food preferences and choices**
*(Source: Livingstone, 2004)*

- There is evidence that television advertising influences food and beverage preferences and purchase requests of children aged 2 – 11 years.
- There is insufficient evidence about its influence on the preferences of teens aged 12–18 years.
- Most children aged 8 years and under do not effectively understand the persuasive intent of marketing messages.
- Most children aged 4 years and under cannot consistently discriminate between television advertising and programming. The advertised diet tends to be an unhealthy diet, high in salt, sugar and fat.

The main outcomes on the impact of advertising on food preferences and choices, described by several authors, are summarised in Table 6.

**Table 6: Impact of advertising on food preferences and choices**

| Author | Findings |
|---|---|
| Hastings (2003) | Only one study (Bolton, 1983) showed a direct relation between advertising and food choices – as opposed to TV viewing and food choices – and which quantified the impact at 2%. |
| Ofcom (2004) | The impact of TV advertising on food preferences and choices are *modest.*<br>*There is little evidence as to the size of this effect, other than it is small*. |
| IOM (2005) | Found *strong evidence* of an impact, but again could not quantify it. |
| Ofcom (2006) | The *modest direct effect* on children's (age 2-11) food preferences is indeed linked to exposure to commercials although *it remains unclear how this effect operates alongside the complex conditions of daily life at home and school*. |
| | There is insufficient evidence to show that television advertising, indeed food promotion more generally, has the larger, indirect effects (through the interaction between promotion and other factors affecting children's lives) that many in the fields of child psychology and consumer research believe occur. |
| • There is also much evidence to support that promotion may affect brand choice without affecting category consumption. | |
| • Many studies indicate common ground that children are targeted with high calorie foods and drinks perceived as healthy, e.g. apples and fruit juice. | |
| • There are promotional effects at brand level, distinct from product category level but the evidence for promotional effects at the level of overall diet is thin at best. | |

### 3.4. The impact on food categories and total diets

Television advertising is dominated by brand advertising. Almost all brand advertising is intended primarily to affect brand choice as can be seen from the thousands case history at the World Advertising Research Center[3].

The issue of whether promoting brands has also an impact on categories and diets is central to the debate.

**Box 2: Evidence of impact of advertising on food categories and diets**

- There is much evidence that promotion may affect brand choice without affecting category consumption.
- Many studies indicate common ground that children are targeted with high calorie foods and drinks perceived as healthy, e.g. apples and fruit juice.
- There are promotional effects at brand level, distinct from product category level but the evidence for promotional effects at the level of overall diet is thin at best.

[3] World Advertising Research Center : http://www.warc.com

**Table 7: Literature review - impacts of advertising on food categories and diets**

| Author | Findings |
|---|---|
| Hastings | The *literature does suggest that food promotion is influencing children's diet in a number of ways*, but acknowledges that *this does not amount to proof.* |
| Ofcom (2004) | The longer-term impact on diets beyond the unproven findings highlighted by Hastings was not part of the study. |
| IOM (2005) | The evidence on whether TV advertising directly affects children's long-term dietary patterns *is limited and less conclusive*. |
| Ofcom (2006) | *Expert commentators are now convinced that television viewing plays a role in contributing to the problem of children's unhealthy diet*. This conclusion is based on the IOM report. |

### 3.5. The impact on obesity/health

The growing concern regarding the link between marketing/advertising and adverse health consequences is also resulting in a growing number of population surveys concerned with obesity that include a measure of television viewing. A 34-nation study of ten to sixteen year olds in 2001-2002 found that, in 22 of the 34 countries, there is a significant positive relationship between Body Mass Index (BMI) and amount of viewing (Janssen et al., 2005). Indeed, many large-scale, well-conducted national surveys, mainly but not only in the USA, also find a modest but consistent association between hours spent watching television and the likelihood of being overweight among children and teens.

Hastings and Ofcom (2004) found evidence that TV viewing is associated with obesity and health, but none that points to a link between exposure to advertising per se and obesity or health variables. IOM (2005) conceded that *available studies are too limited to determine whether television advertising is a direct cause of obesity among children*, but concluded nonetheless that *the statistical association between ad viewing and obesity is strong*. Ofcom (2006) concluded that there is **growing consensus that advertising works in its influence on children's food preferences, diet and health**, and that, **given that most advertising to children is for products High in Fat, Salt and Sugar (HFSS), this influence is harmful to children's health.**

In other words, there is no proven link between exposure to advertising and obesity. Not everyone agrees with these conclusions, and there are some significant dissenting voices, on various grounds, from industry, public policy makers and the academy. Nonetheless, as the evidence for the effects of food advertising on children's health accumulates across Europe, North America and elsewhere, there is a growing consensus that the evidence base is sufficient to guide policy (Livingstone, 2005).

# 4. Data on children's exposure to food advertising

## 4.1. Why blame television advertising

Food marketing is one of the economic drivers of food production and consumption. In particular, promotional marketing is using a wide variety of techniques to stimulate total market growth as well as brand switching. Television advertising is one of the marketing tools, among others, used for that purpose.

The food industry is a major player in the advertising market. Television is currently reported as the predominant media used for food advertising, far ahead of press which is the second media used. The amounts spent on other marketing investments (product placement, character licensing, in-school activities, advertising-games and so on) are rarely calculated.

Clearly advertising tends to affect knowledge, preferences and behaviour of its target market since that is the reason for doing it. There is considerable literature on advertising effects and how it works. Advertising affects many other things than brand sales. Amongst children advertising also influences knowledge, attitudes and behaviour. The literature on children's cognitive development is considerable. The question, however, is whether it does so at the level of food categories and diets, rather than simply brands, and thereby contributes to obesity.

Consequently, considerable research efforts have been devoted to the hypothesis that there may be a causal relationship between food promotion and children's food preferences, diet and health.

It is difficult to provide a global picture of the situation in the EU because national self regulatory rules which govern TV advertising to children may differ greatly. Data and figures are mostly available at national level. Therefore one must be careful in trying to compare data between countries.

However, the data gathered in this section provide an overall picture of the situation.

### 4.2. Children's exposure to food and drink advertising: Comparative country data

Table 8 gives an indication about the number of advertisements seen by children in various countries.

**Table 8: Food advertising estimates in various countries**

| Country | Number of Ads per Hour+ | Minutes of Advertising per Hour | Percent of Ads That Are For Food | Average No. of Food Ads per Hour | % overweight or obese |
|---|---|---|---|---|---|
| **USA** | 24 | 11 | 49% | 11 | 33 |
| **Poland** | N/A | N/A | N/A | 11 | 19 |
| **UK** | 17 | 9 | 59% | 10 | 22 |
| **France** | 16 | 6 | 49% | 8 | 18 |
| **Germany** | 14 | 5 | 41% | 6 | 15 |
| **Denmark** | 12 | 6 | 38% | 5 | 18 |
| **Finland** | 12 | 5 | 47% | 6 | 13 |
| **Greece** | 12 | 5 | 60% | 7 | 31 |
| **Netherlands** | 5 | 2 | 84% | 4 | 14 |
| **Norway** | 7 | 2 | 29% | 2 | 21 |
| **Belgium** | 7 | 1,5-2 | 53% | 2 | 18 |
| **Sweden** | 3 | 1 | 21% | <1 | 18 |

*Reproduced from WFA*[4]

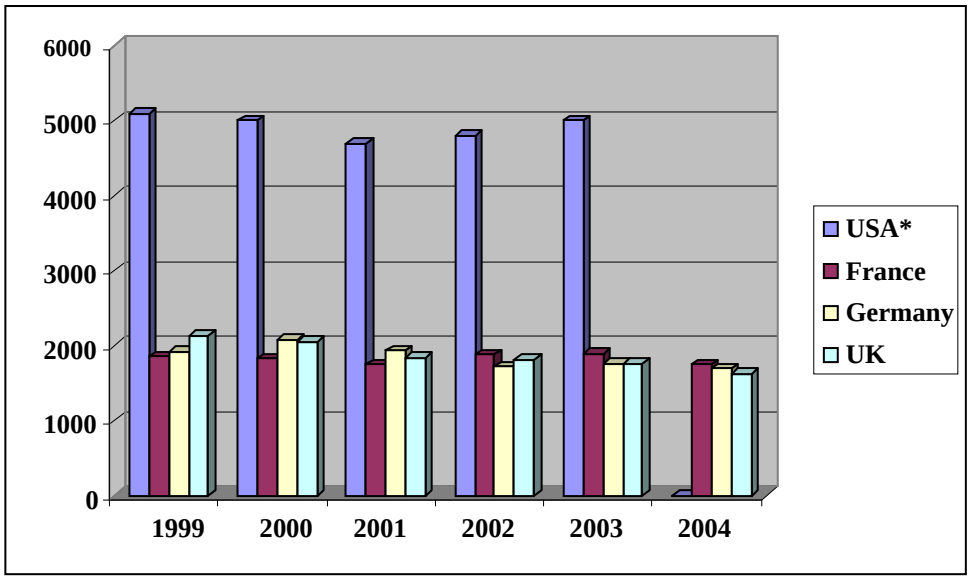
*Source: Based on IOTF obesity figures and Consumers International data on advertising*

Looking at how the number of advertisements seen by children has evolved over the recent years, comparative data between the USA, France, Germany and the UK, show either stability or a slight decline since 2000 (Figure 2). This results mostly from the voluntary initiatives taken by industry to demonstrate social responsibility by self-limiting TV advertising to children industry.

Most of the scientific literature on the influence of exposure to advertising and marketing on children's food preferences comes from the USA, where the social and cultural context is quite different from European countries. It must be kept in mind that children's exposure to TV advertisements in the USA is more than double than in Europe.

[4] WFA World Federation of Advertisers: http://www.wfanet.org/

**Figure 2: Television Advertising for Food and Restaurants: Average number of commercials seen by children per year**
*Source: WFA*




Average child defined as: France: 4-10 yrs; Germany 3-13 yrs; UK 4-15 yrs; USA <12 yrs

*Estimates-Actual figures not provided – US data for 2004 not available

The average number of food and restaurant commercials viewed by children in France, Germany and the UK over the period 1999-2004 is similar, in the range of 1,700 per year.

**Table 9: Estimated food and restaurant commercials viewed by an average child**
*Source: WFA*

| **Period 1999 - 2004** | **France** | **Germany** | **UK** | **USA** |
|---|---|---|---|---|
| Average number of ads seen per year | 1,805 | 1,772 | 2,608 | 4,850 |
| Decline of average ads seen | 1,857 → 1,746 | 2,077 → 1,692 | 2,608 → 1,624 | 5,909 → 5,038 |

## 4.3. Country specific data

### 4.3.1. France

Like in other countries, television is by far the most important media used for promoting food and beverages in France.

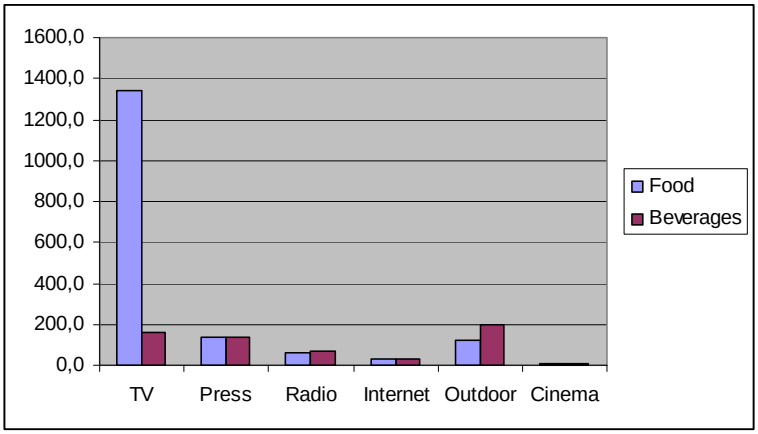



**Figure 3: Food and beverages advertising expenditure by media in France (in million €)**
*(Source:Chiffres clésUDA[5] : TNS Media Intelligence data, 2006)*

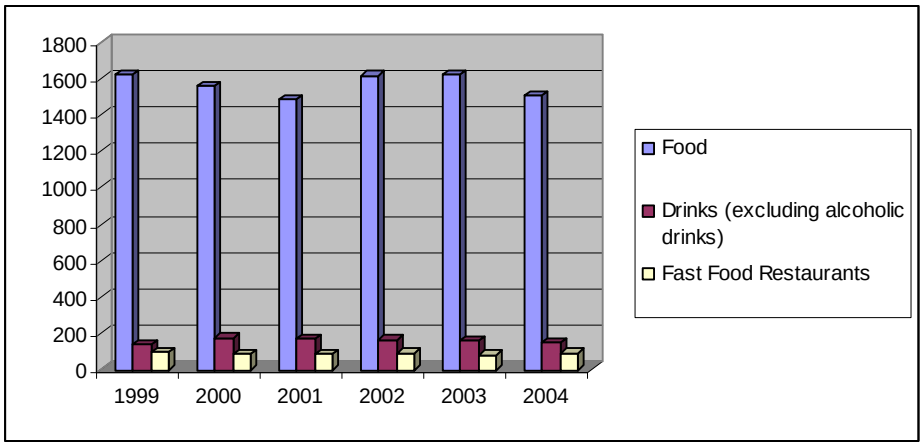



**Figure 4: Number of TV Commercials Viewed by an Average Child (age 4-10) per year**
*Source: Mediametrie + TNS Media Intelligence*

[5] UDA: Union des Annonceurs http://www.uda.fr/

### 4.3.2. Germany

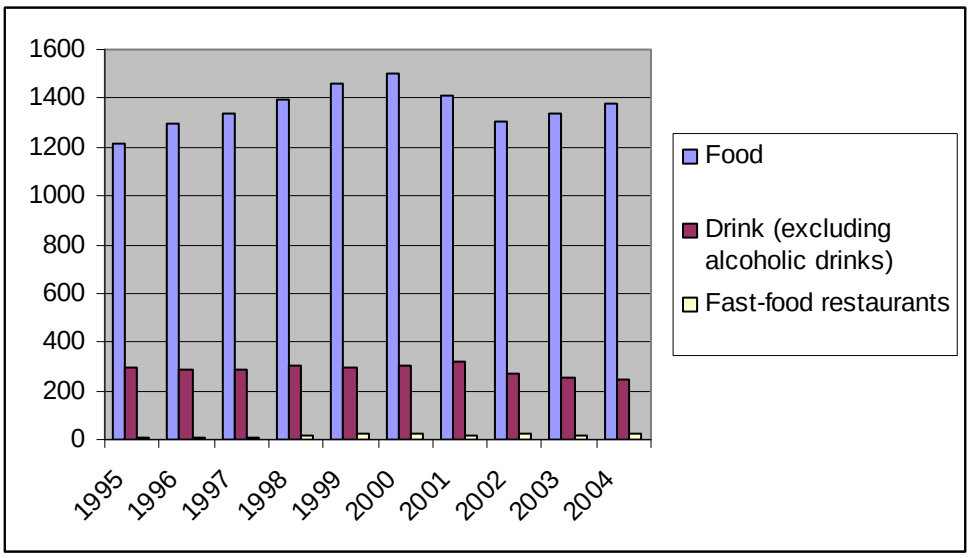



**Figure 5: Television media expenditure in Germany (million €)**
*Source: AC Nielsen media research*

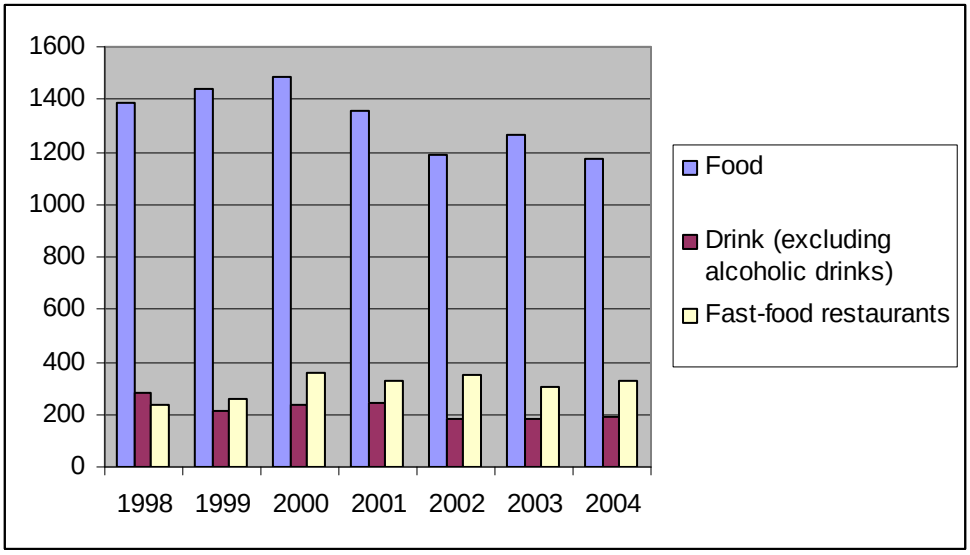



**Figure 6: Number of TV Commercials Viewed by an Average Child (age 3-13) per year**
*Source: AC Nielsen GfK*

### 4.3.3. UK

This is the most extensively researched market in Europe. Quite a number of publications provide a detailed picture of TV viewing by children (Ofcom 2007, Advertising Association 2007).

FSA and Ofcom research shows that advertising only has a modest effect on children's food preferences. They conclude that the obesity problem will only be successfully addressed by a holistic and wide-ranging approach, not by further advertising bans or restrictions.

Data in the following section are extracted from a recent report of the Advertising Association[6] unless otherwise specified.

## ADVERTISING EXPENDITURE

Television remains the most popular medium for food and drink advertising followed by press, outdoor and radio, whilst the internet is still last in the list.

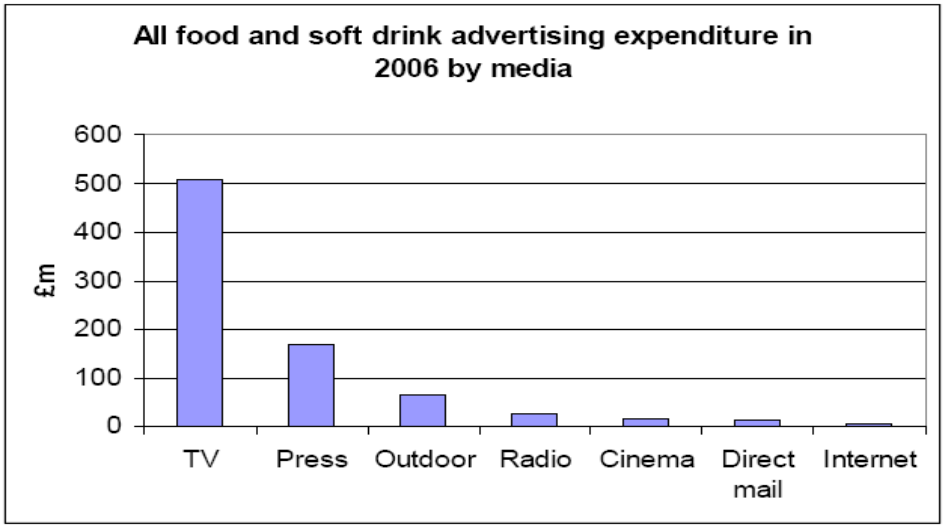



**Figure 7: The media landscape for food advertising in the UK**
*From Advertising Association Food Advertising Unit*

The total TV advertising expenditure on all types of food, soft drinks and chain restaurants has decreased considerably over time. In fact, Ofcom measured a 15% decline between 1999 and 2003 in their 2004 research report.

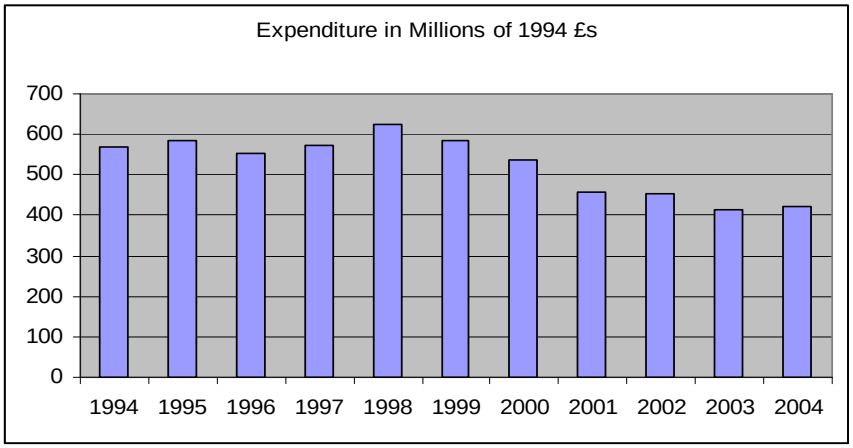



**Figure 8: Evolution of food, drink and restaurant advertising in the UK**
Source: WFA

Between 2003 and 2006, ad spent on HFSS food[7] fell by almost 9% (£26 millions) across all media. Ad spend on TV (which remains the dominant medium for these advertised categories) shows a decline of almost 18% (£41 millions).

[6] Advertising Association report /Food Advertising Unit (September 2007)

[7] Defined as confectionery, potato crisps & snacks, full sugar carbonates, breakfast cereals and fast food restaurants

Since 2004 many leading food manufacturers have stopped targeting children and are focusing on adult audiences instead.

## INTERNET AND NEW MEDIA

The internet has the lowest ad spent of all the media for food and soft drink advertising.

However, Internet advertising has increased in the last few years mostly as a result of a shift in consumers' preferences towards new technologies and trends in the UK's communications market. To put it in proportion, internet advertising in 2006 represented only 0.83% as compared to the total TV advertising expenditure on food and soft drinks for that year and was only 0.53% of all advertising spent[8].

## CHILDREN'S VIEWING PATTERNS

Although media and platforms such as the internet, gaming and mobile phones are competing for children's attention, television is still the dominant medium.

Children are watching less television and their viewing habits are shifting: their viewing of adult programming is declining and there is a substantial increase to children's channels.

Children in the UK now have a greater choice of media they can use at home than ever before and while television is still the dominant media platform in terms of regular usage, the internet, gaming and mobile phones are increasingly competing for children's attention. As a result, children are watching less television.

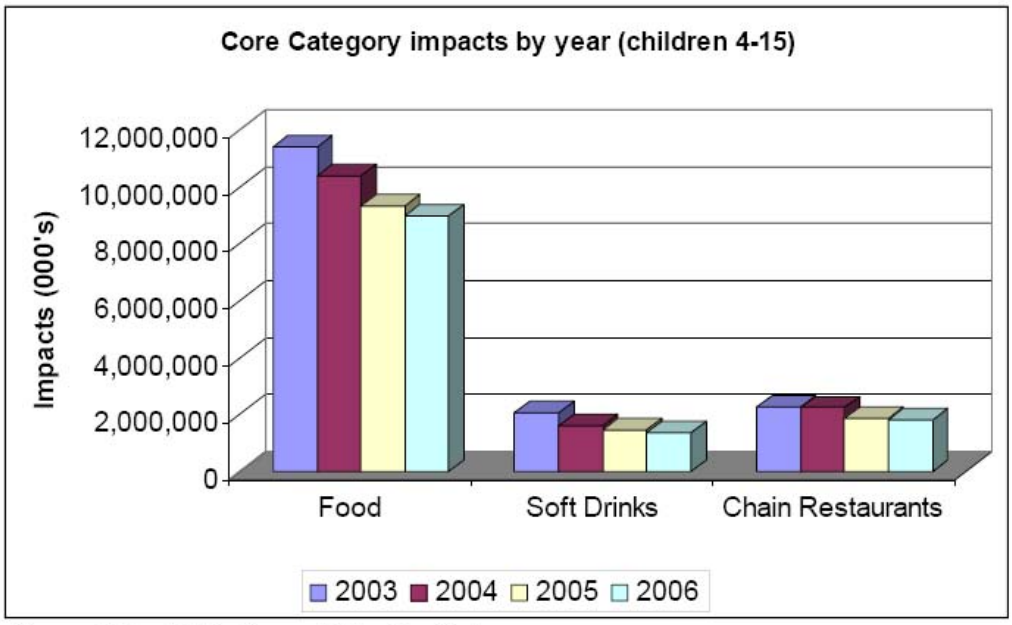
- BARB[9] shows that viewing amongst children under the age of 16 has gone down from just under 17 hours per week in 2002 to 15.5 hours in 2006 or 2.2 hours per day – nearly one tenth less.
- Ofcom's consultation on food advertising to children[10] shows that, in 2005, 68.9% of children viewing was to adult programmes, of which 17.8% was to the advertising-free BBC, and therefore only 51.1% (and not the popularly quoted figure of over 70%) was in commercial adult airtime. For 4-9 year olds, the figure was actually less than half of their total viewing at 42.1%. Children are not watching less children's programmes. In fact, the proportion of children's viewing to children's programmes has increased since 2002, to around 30% of total viewing, or 4.7 hours per week in 2006.

In summary, there is an overall decline in children's TV viewing hours and when they are watching television, their viewing habits are shifting. Their viewing of adult programming is declining and there is a substantial increase to the children's channels (where restrictions on the advertising of HFSS foods are being phased in), which are also available for children to watch in early and late evening peak time.

## CHILDREN EXPOSURE TO TV ADVERTISING

Advertising seen is measured by looking at impacts because they provide a measure of exposure to advertising. One impact is equivalent to one child viewing one commercial spot. The chart below shows changes in core category advertising seen by children at any time, both in children's and adults' airtime, for the period 2003 to 2006.

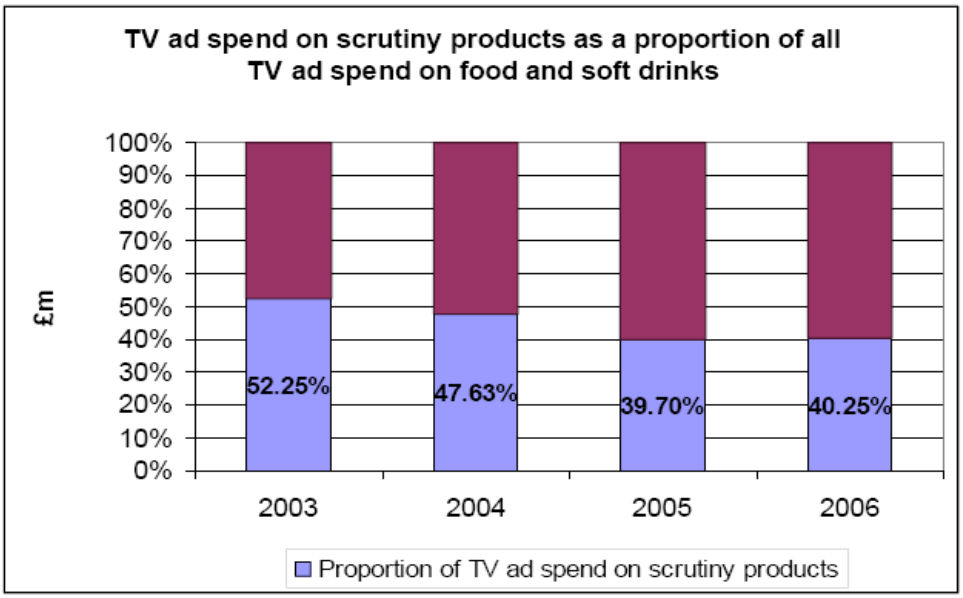
[8] Commercial editorial content (i.e. company websites) is not advertising and therefore the costs that marketing departments may budget for the creation and maintenance of company websites is not measured by Nielsen's internet food and drink advertising expenditure.
[9] BARB, Broadcasters' Audience Research Board
[10] Research Annex 10 to Ofcom's report 2007




Source: Nielsen Media Research Television System.

**Figure 9: Changes in exposure to TV advertising of children under 16 during the period 2003 to 2006**[11]
*From Advertising Association Food Advertising Unit*

There was a decline in core category TV ad exposure of children under 16, as a result of the industry's already proactive actions, even before Ofcom's restrictions came into force on 1 April 2007. The following chart further exemplifies the share of TV ad spend on "scrutiny products", i.e. HFSS foods.




Source: Nielsen Media Research.

**Figure 10: Percentage of TV advertising spent on HFFS food during the period 2003 to 2006**
*From Advertising Association Food Advertising Unit*

[11] Core categories: all food, soft drinks (including mineral water and fruit juice) and fast food chains

Television advertising of HFSS products has experienced a significant decline of almost 18% since 2003. This means that food and drink manufacturers have voluntarily reduced their advertising expenditure on these products by £42 millions in the last three years, from £231m down to just under £190 millions.

### 4.3.4. Other European countries

Additional global data on television advertising expenditures for food and restaurants in various European countries have been gathered at the request of the European Heart Network. The countries listed are Cyprus, France, Germany, Italy, Latvia, Lithuania, Poland, Slovakia and the UK. CARAT International has summarised data from various countries[12].

### 4.3.5. USA

There are many publications, studies and data sources available to describe exposure to advertisement among US children in the USA. But not all of them do analyse a nation-wide population. Some of them are referenced in the bibliography section of this report. The most comprehensive report is likely the one from the Federal Trade Commission[13] entitled Children's Exposure to TV Advertising in 1977 and 2004.

Because most of the scientific evidence base about the links between food advertisement and its influence on children's food choices and preferences originates from the USA, it is worth mentioning some key figures for comparative purposes with European countries.

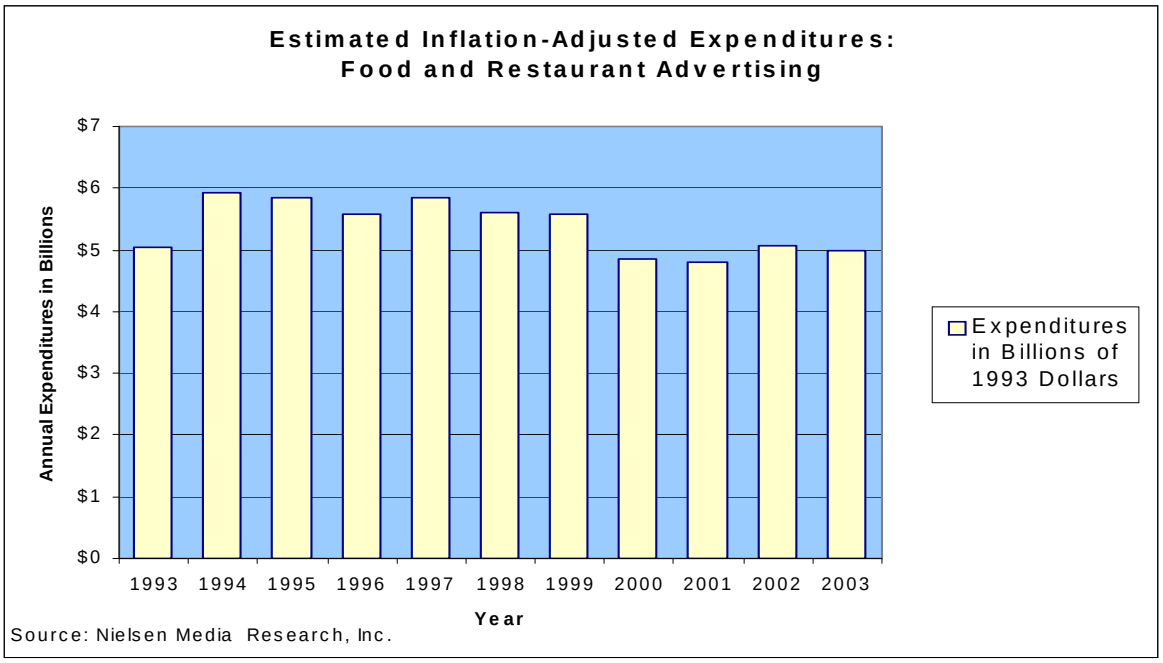



**Figure 11: Evolution of food, drink and restaurant advertising in the USA**
*Source: WFA*

As already mentioned, the number of TV advertisement seen by American children on average is at least double of the estimated one for major European countries such as France, Germany and the UK.

[12] A summary report could be obtained from WFA.
[13] The Federal Trade Commission is the USA's consumer protection agency. The FTC's Bureau of Consumer Protection is in charge of preventing fraud, deception, and unfair business practices in the marketplace.

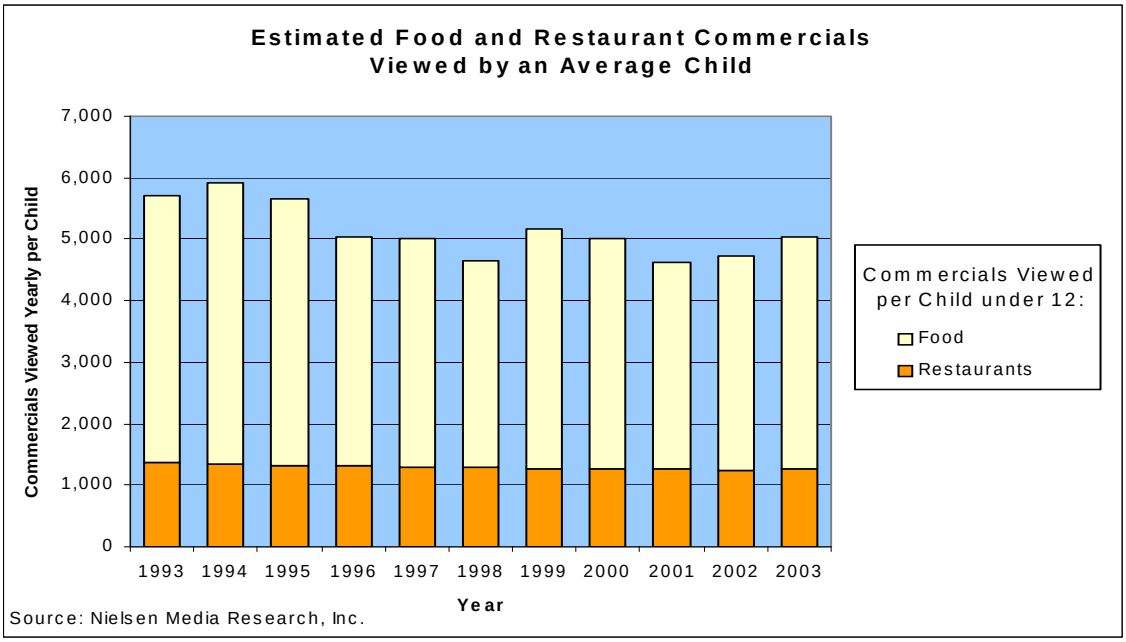



**Figure 12: Number of TV Commercials Viewed by Children under 12 per year**
*Source: WFA*

# 5. Marketing food to children: An evolving global EU regulatory environment 2002-2007

There is a strong existing EU legal framework to ensure that advertising and marketing are legal, decent, honest and truthful. This is of particular importance in the case of children so as to ensure that they are not misled. The key pieces of legislation are the Television Without Frontier (TWF) Directive, the Misleading Advertising Directive and the Unfair Commercial Practices Directive. This solid legal framework, transposed into national legislation in the Member States, is complemented by advertising standards (commonly known as 'advertising self-regulation'), which operate at national level and set more detailed rules for responsible advertising and marketing, in accordance with the national legal frameworks, customs, traditions and cultural sensitivities. Some countries have a longer tradition of advertising self-regulation and self-regulation is more effective in some countries than others. EU enlargement provided an additional challenge to the implementation of effective advertising SR across Europe. In 1995 self-regulatory organisations were present in 13 EU Member States, in 2005 there were 18, and by the end of 2007, there were 26 (See Annex I for a detailed overview of the different approaches).

## 5.1. Self-regulation of the media

Self-Regulation (SR) is a system by which the advertising industry actively polices itself. The three parts of the advertising industry – advertisers, agencies and the various forms of media – agree standards of practice and set up a system to ensure that advertisements which fail to meet those standards are quickly removed or corrected. An independent body is set up to apply the code. This body is called a Self-Regulatory Organisation (SRO).

For historical reasons, SR has been shaped in different models and diverse ways in Europe due to the national legal traditions and cultures and the need of reflect them in national legislation or codes. There are wide national differences across the EU as regards the use of self- and co-regulation and statutory regulation. A number of countries use and promote self--regulation; others allow a limited role for SROs and in others the co-regulatory structure dominates the system.

The current shape of self-regulation in advertising in the EU depends on two main elements:

- The **scope of national legislation:** The national legal context determines the characteristics of how the SROs operate in every Member State. In some countries such as Denmark, Finland and Sweden, public enforcement by Ombudsman prevails. In Germany and Austria, the statutory regulation is so comprehensive that the opportunities for self-regulation are very limited. Whereas, France, Ireland, Spain, Belgium, the Netherlands and the UK, are countries where self-regulation plays a more significant role.

- **The tradition of using legal instruments.** Some countries are more familiar with using soft law instruments and then consequently are more open to use self-regulation as a complement to classic regulation. The need to reflect cultural norms is particularly specific for the regulation of advertisement content. Historically these different realities have been implemented at national level. SR systems have therefore been developed nationally, rather than at EU level.

### 5.2. Significant improvements in self-regulation in the EU: some recent examples

Advertising codes have been in place for many years in most of the Member States. The French one, the oldest, was put in place in 1953. New advertising codes have been established in Cyprus, Latvia, Lithuania, Romania and Poland. Denmark uses the ICC[14] Code.

Furthermore, basic infrastructure for national SROs has been established in Cyprus, Estonia, Lithuania and Poland and new SROs are fully operational in Lithuania, Poland and Romania.

The French (BVP)[15] and Belgian (JEP)[16] SROs announced in December 2007 significant reforms coming into effect in 2008 aiming at making the system more transparent, participative and effective. One of the major changes is a greater stakeholders' involvement with a 50% participation of civil society representatives.

### 5.3. Towards a best practice SR model

In 2006, DG-SANCO of the European Commission convened the Round Table on Advertising Self-Regulation[17] with the goal of reaching a clearer definition of a best practice model for self-regulation in the EU Advertising Sector (see Table 10). Starting from the EASA Charter and its best Practice[18] (April 2004), the Round Table has identified key determinants of effectiveness. They are all consistent with EASA guidelines, but reflect the very best practice in implementing those guidelines.

**Table 10 : The basic components for a Best Practice SR model on advertising**

- **Effectiveness:**
  - Provision of copy advice
  - Complaints handling
  - Sanctions
  - Consumer awareness
- **Independence**
  - Involvement of interested parties in Code drafting
  - Involvement of independent persons in the complaints adjudication process
- **Coverage**
  - Funding

*Source: DG-Sanco Round Table report*

### 5.4. Examples of countries with statutory regulatory or self-regulatory measures to control advertising to children in selected countries

#### 5.4.1. United Kingdom

In the UK there is no official ban on food advertising to children, although several bodies are involved in regulating advertising to children. The Office of Communications (OFCOM) places general restrictions on advertising to children and adopted new rules which came into effect on February 22, 2007.

[14] ICC International Chamber of Commerce – ICC Code of Advertising & Marketing practice available at http://www.easa-alliance.org/
[15] BVP Bureau de Vérification de la Publicité
[16] JEP Jury voor Ethische Praktijken
[17] Interested parties were Commission colleagues, some interested NGOs and representatives of the European Advertising Standards Alliance (EASA)
[18] http://www.easa-alliance.org/

Under the new rules, HFSS[19] food and drink products may not be advertised in any programme that is made for children (including pre-school children), broadcasted on any channel or in any programme that is of particular appeal to the under 16s.

These restrictions remove all HFSS advertising from dedicated children's channels and from children's programmes on any channel. They also remove HFSS advertisements from youth-oriented and general entertainment programmes on all channels where those programmes attract a significantly higher than average proportion of viewers under the age of 16.

In addition, there are new rules on the content of advertisements which apply to all advertising of food and drink products to all children at all times. These include three age-specific rules (relating to celebrities and licensed characters, promotional offers and nutritional and health claims) which prohibit use of these techniques in HFSS advertising targeted at pre-school and primary school children.

OFCOM will review the effectiveness and scope of these new restrictions in autumn 2008, one year after the full implementation of the new content rules.

#### 5.4.2. The Quebec experience

In 1978, the Government of Quebec enacted the Consumer Protection Act, which came into force in 1980. Under this Act, all forms of commercial advertising directed at children less than 13 years of age are totally prohibited.

The regulatory ban on advertising to children is very broad and applies to any goods, including but not limited to food, and to all forms of advertising. Section 248 of the Consumer Protection Act stipulates that "*Subject to what is provided in the regulations, no person may make use of commercial advertising directed at persons under 13 years of age*".

To determine what constitutes an advertisement directed at children, Section 249 of the Act states that "*account must be taken of the context of its presentation, and in particular of: (a) the nature and intended purpose of the goods advertised; (b) the manner of presenting such advertisement; and (c) the time and place it is shown*". A scale chart is used to assess whether an advertisement is directed to children.

#### 5.4.3. Sweden

Sweden probably has the strictest advertising ban in Europe in relation to advertising and children. There is a ban on all advertising directed at children and advertisers are not allowed to use children's voices or show children buying products or asking their parents to buy products on any other type of advertising even when directed at adults. After 9 PM the rules are assumed to be relaxed, but if there is a special event that children might be likely to watch then the same strictness applies. The definition used by the Swedish regulators for children is all those persons under 12 years of age.

Television broadcasters not based in Sweden do not have to comply with the Swedish rules. Through these channels, Swedish children are thus still exposed to food and other advertising, making the evaluation of the Swedish ban difficult. In relation to food advertising, the regulations are not as effective as they were intended to be.

#### 5.4.4. Industry approaches - Being responsible/Voluntary initiatives

Industry has demonstrated - through positive initiatives and voluntary changes in advertising and promotions prior to the introduction of the new restrictions - that it can play a positive and active role, working with Government and other stakeholders, to help address the societal problems about lifestyles and obesity.

[19] HFSS High Fat Salt and Sugar foods

Food companies have taken a responsible approach and have modified their promotional practices as part of their commitments to the EU Platform for Action on Diet, Physical Activity and Health[20]. The EU Platform for Action on Diet, Physical Activity and Health started in March 2005 with the purpose to create a forum for actors at European level who can commit their membership to engage in concrete actions designed to contain or reverse current trends.

- This means that many leading food companies no longer advertise to younger children.

Food manufacturers have put their own company guidelines in place.

Companies commit to advertising in a responsible manner by not encouraging over consumption or putting children under pressure to buy a particular product and by encouraging healthy choices (See Box 3).

**Box 3: The 'EU Pledge' food industry initiative**

On 11 December 2007, 11 food and beverage manufacturers in Europe announced their commitment to change their marketing practices to children in an effort to support healthy lifestyle initiatives.[21] The companies will implement individual voluntary measures to restrict food and drink advertising to children by the end of 2008, which will have to correspond to an agreed set of minimum criteria.

The following criteria will have to be met by EU Pledge participants:

- "No advertising of products to children less than 12 years, except for products which fulfil specific nutrition criteria based on accepted scientific evidence and/or applicable national and international dietary guidelines. For the purpose of this initiative, "advertising to children less than 12 years" means advertising to media audiences with a minimum of 50% of children fewer than 12 years."
- "No communication related to products in primary schools, except where specifically requested by, or agreed with, the school administration for educational purposes."
- "In line with the EU Platform's Terms of Reference, Pledge signatories are required to monitor commitments in a transparent, accountable and participative way. Independent compliance monitoring of the EU Pledge will cover TV, print and internet advertising and will start in January 2009."

Companies' specific advertising commitments will be published on an EU Pledge website[22] and will have to be implemented by 31 December 2008.

Many food companies are reformulating their products to reduce salt, fat and/or sugar content to address consumer concerns and preferences.

[20] All details available at http://ec.europa.eu/health/ph_determinants/life_style/nutrition/platform/platform_en.htm

[21] Current participants in the EU Pledge are: Burger King, Coca-Cola, Danone, Ferrero, General Mills, Kellogg, Kraft, Mars, Nestlé, PepsiCo, Unilever

[22] http://eu-pledge.eu/

Industry has also developed voluntary initiatives to promote healthy lifestyles, either in the form of schools and community partnership programmes, or through on-pack information or dedicated websites which emphasize the concept of balance between food intake and physical activity.

A pre-9 pm watershed ban would be a blunt instrument that would be disproportionate and unnecessary, given the new restrictions in place. It would also have unintended consequences.

## 6. Conclusions and recommendations

Obesity is a complex, multifaceted condition that has no easy or obvious solution. However, rigorous analysis of the evidence for its causes and possible prevention has identified a number of key issues to guide strategy development.

Promotional marketing is using a wide variety of techniques to stimulate total market growth as well as brand switching. This includes pricing (e.g. special offers, discounts), positioning (e.g. checkout displays for impulse purchases), the presentation of the product itself (including packaging, formulation, giveaways) and specific promotional activities (including advertising, sponsorships etc.). Other factors include accessibility issues (e.g. distribution and retail).

Clearly advertising tends to affect knowledge, preferences and behaviour of its target market since that is the reason for doing it. But television advertising doesn't work in isolation of the other promotional tools and measuring its impact per se is extremely difficult.

Television advertising is dominated by brand advertising, which is intended primarily to affect brand choice. Promotional effects operate at the brand level and the balance of evidence does support the conclusion that television advertising has a modest direct effect on children's food choices. But the evidence for promotional effects at food category level or overall diet is thin at best. Furthermore, there is insufficient evidence to show that television advertising, and food promotion more generally, has a link to overweight and obesity.

There is also no scientific evidence to demonstrate that ban or advertising restrictions could impact the incidence of obesity. As a matter of fact, there is no ranking of the many factors influencing children's food choice and behaviour and television advertising is not even mentioned as an important factor among also those very seriously and thoroughly assessed in the most recent review of obesity causes (UK Foresight report).

A ban or restrictions of advertising for HFFS food in children's programme is unlikely to have any significant impact on children's food choices. It may be more productive to focus intervention on educating children into consumers, there is already evidence that media literacy programmes can help in that respect.

As a contribution to the obesity debate, a broad range of initiatives have recently been taken, mostly but not only under the leadership of the European Commission (launch of the Diet, Physical Activity and Health - EU Platform for Action since March 2005). They vary from regulatory initiatives (strengthening of self-regulatory codes on advertising, implementation of the new directive on Audiovisual Media Services, upcoming legislative changes in food and nutrition labelling) to various industry initiatives (products reformulation, reduction of fat, salt and sugar, portion sizes, nutrition labelling, voluntary measures to restrict food and drink advertising to children, support of healthy lifestyle initiatives).

Evidence for success will require several years of evaluation. Finding and implementing solutions to address the increasing prevalence of obesity will require multidisciplinary approaches to stimulating effective behaviour change and establish new social norms. They require the creation of a supportive environment and, critically in the case of children, parental engagement.

# 7. Annex I: Different approaches to advertising self-regulation in the Member States

SROs are in place in 26 out of 27 Member States, each reflecting a specific national culture and legal tradition. Discussions are underway to establish an operational SRO in Bulgaria in 2008.

The Round Table report from the European Commission[23] quotes that EASA[24] has identified three main models of advertising self-regulation operating in Europe, based on differing relationships with the law.

## 7.1. Model 1: Self-regulation, within a strong legislative framework

Within this model, there are two identified sub-types.

The first sub-type, exemplified by Ireland, the Netherlands, Spain and the UK, is where legislation allows extensive scope for self-regulation. SROs in these countries have a high profile and wide responsibilities. In **Ireland** and **UK** there have been initiatives to tighten up the regulatory mechanism on alcohol and food advertising to children to reinforce the levels of protection on these issues.

In the case of **Netherlands** the system is characterized by clear and comprehensive links between the law and the advertising self-regulatory system, resulting in clearly defined responsibilities and the development of a comprehensive set of self-regulatory rules. Under the Dutch SR system, although membership of the Advertising Code Foundation is voluntary, the law requires both public and private broadcasters to be affiliated to the Dutch Advertising Code if they intend to broadcast advertising. Dutch law subjects the broadcast media to the self-regulatory advertising code. If the SRO upholds a complaint, broadcasters are legally required to withdraw the advertisement.

By contrast, in **Spain** the significant overlap of jurisdiction between national legislation, regional legislation, national and regional statutory authorities, the powers of the judiciary and the role of the SRO, has resulted in a lack of clarity and even occasional conflicts between the self-regulatory system and the judiciary. Auto-control has experienced difficulties, particularly with the competition and anti-trust authorities, and has also had its adjudications relating to advertisers not in membership of auto-control struck down by Spanish courts.

The second sub-type is a situation where advertising is subject to extensive legislative regulation, but where self-regulation has nevertheless established an effective system by fulfilling a complementary role to legislation. The **French** SR system, the oldest one in Europe, is a good example. It places great emphasis on the preventive aspect of advertising regulation. Apart from the UK (and Ireland for alcohol issues), it is the only one which systematically pre-clears television advertisements: agencies and/or advertisers must submit the advertisement to the SRO before transmission. Unlike the UK, where it remains a statutory requirement, in France pre-clearance is compulsory for television advertising by decision of the industry itself.

[23] Self-Regulation in the EU Advertising Sector: A report of some discussion among interested parties – DG-Sanco July 2006

[24] EASA The European Advertising Standards Alliance

### 7.2. Model 2: Self-regulation restricted by law

Within the second model of self-regulation in Europe, there is limited scope for self-regulation due to the presence and detail of national legislation. Again, within this category there are two distinct models. The first sub-type is found in countries such as **Germany and Austria**, where advertising falls under the auspices of unfair competition law, characterised by very strict and detailed legislative controls on advertisement content.

The **German** situation is one where a tight and detailed legal framework has significantly limited the scope for self-regulation in advertising. The **Austrian** system is similar in this respect. The peculiar feature here is that statutory authorities are responsible for applying self-regulatory rules; the State Media Authorities are responsible for the regulation of broadcast advertising. Although they are independent from the state governments, the State Media Authorities may be regarded as statutory regulators, because they are constituted by law and legally bound to supervise broadcasting and media services.

The SRO in Germany (the *Deutsche Werberat*) is limited to issues of taste and decency while the Austrian SRO (*Zentrale zur Bekämpfung unlauteren Wettbewerbs*[25]) is responsible for the enforcement, through the courts, of unfair competition law. This highly unusual model of co-regulation results in an industry-funded body, rather than a statutory regulator, responsible for the enforcement of legislation.

The second sub-type in this category is found in the Nordic countries (**Denmark, Finland, and Sweden**) where responsibility for consumer protection and the regulation of marketing is vested in the Market Court, the Consumer Ombudsman and other statutory bodies.

### 7.3. Model 3: Emerging self-regulatory systems

The final model of self-regulation in Europe is the one found in the 'new' member states of Central and Eastern Europe. These states – **Poland**, **Czech Republic**, **Hungary**, the **Slovak Republic**, and **Slovenia** - have no established tradition of advertising self-regulation. The SROs in these countries are still in the process of defining their relationship with statutory regulation, as well as with consumers, and require ongoing guidance and support.

[25] Centre for Combating Unfair Competition

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# NOTE 2 FROM MS KRISTINA SJÖLIN

## FOREWORD

Everybody, in particular the marketing sector, knows that advertisement has an impact on human attitudes and behaviour.

It has just become too much of the golden edge. The pick and mix sweets are easily available in super markets, with bigger and bigger paper bags and increasing running metres. Potato crisps (chips) are no longer only a party product. Ice-cream is not consumed only once a month. Sizes of soft drink portion have become more and more extreme: for example 4 x 1,5 litre Cola is sold as a weekend pack.

This situation is aggravated by the fact that infants and small children do not find soft drinks and lemonade by themselves. People are led to prefer soft drinks and sweets rather than a glass of cold water or a ripe apple.

Therefore, marketing “helps” defining what it could be considered 'normal'. Children recognise brands before they can read and ask their parents for specific brands. The marketing techniques are numerous. Old techniques are used together with newer and newer audiovisual techniques directly or indirectly, in school or outside schools. Nowadays marketing reaches children even in their bedrooms as many children have their own TV or personal computer where they spend most of their free time, hours and hours watching films or surfing on the internet.

In the obesogenic environment (a food system supplying an abundance of energy dense foods, a society built for cars more than pedestrians, elevators more easily found than staircases in buildings, mechanised transport, labour-saving devices etc) it is easier to make unhealthy choices. In addition, the unhealthy food is relatively cheap so it is an affordable economic option. There are billions of money in total, coming from our children’s and adolescent’s pocket-money, thus an enormous economic potential for marketers.

As Egger & Swinburn expressed it in 1997 “*obesity is a normal response to an abnormal environment*”.

That "abnormal environment" has to be cured. The healthy choice has to be available, affordable and attractive – the unhealthy choice should not be the best available, affordable and attractive.

## EXECUTIVE SUMMARY

This briefing was written at the request of the European Parliament's Committee on Environment, Public Health and Food Safety. It addresses, in particular, marketing of foods in relation to childhood overweight and obesity. **Childhood begins at birth and ends at 18 years**. The forthcoming amended Television Directive (TVWFD) and the Unfair Commercial Practises Directive (UCP) will have impact on ways to protect minors from different types of marketing.

In the European Union 22 million children are overweight or obese. Of these 22 million over 5 million children are obese. These figures are increasing with over 300 000 children becoming obese and over a million children becoming overweight each year.

WHO has identified the main drivers behind the obesity epidemic as inter alia the increased food supply, rising incomes and worldwide changes in dietary patterns and eating behaviour. The real price of food is now the lowest in history and the relative lower price for bigger sizes makes those more attractive.

In 2003, the World Health Organization judged that there is probable evidence between heavy marketing of energy-dense foods and fast food outlets and an increased risk for weight gain and obesity. Five major reviews of the evidence on the impact of **food marketing to children** (published 1987-2006) **showed that marketing inter alia has an impact on attitudes, purchase requests and consumption**. Nevertheless the International Chamber of Commerce maintains that there is no scientific evidence that restrictions on advertising would have an impact on the incidence of obesity and that advertising bans would be disproportionate and ineffective.

Studies have documented that a high percentage of advertisements targeting children feature sweets, fast foods, and snacks and that exposure to such advertising increases consumption of these products. The problem is that the great majority of foods that are advertised are high in fat, salt and/or sugar (CFC, 2007).

Marketing of unhealthy foods is thus a contributing factor to overweight and obesity. Schools definitively have a significant impact, through policies, healthy school environments and curriculum on what children eat. The school environment is of utmost importance since children spend a considerable amount of their childhood there. Another important factor is that commercial messages delivered in schools may be regarded as (tacitly) endorsed by teachers and other school staff. This fact enhances the effectiveness of the advertising in schools (APA, 2004): campaigns or non-commercial communication in schools could be effective by the same reason.

The acronym HFSS means High in Fat, Salt or Sugar. The food categories included in all the umbrella terms explained are: Soft drinks and sugary beverages, Crisps /savoury (salty tasting) Snacks, Confectionary and Presugared Breakfast cereals. Fast food is also included in some umbrella terms.

Self-regulation (SR) is a type of voluntary initiative, which enables the economic operators, social partners, non-governmental organisations or associations to adopt common guidelines amongst themselves and for themselves. Where there exists self-regulation it has not been regarded as effective. In Australia both regulations and SR are considered ineffective at protecting children from large volumes of TV ads for HFSS (CFAC, 2007).For all systems**,** whether it is regulation by government or authorities, co-regulation or SR there will always be borderline cases, need for interpretation (e.g. definitions of misleading), control and sanctions.

TV is the easiest way for marketers to reach a large number of children. Much is known about the impact of TV ads in different sectors. Marketers are well aware of the power of the TV-media. It gives them access to children at much earlier ages than print media (OAC, 2007).

During children's television hours confectionary and fast foods ads are most frequent during all timeslots and especially children's weekend viewing morning. There is a strong positive relationship between TV ads for sweet or fatty foods and the prevalence of overweight in children (CFAC, 2007).

**Marketing is the activity of deciding how to advertise a product, what price to charge for it or the type of job in which you do this**[1]. It consists of a great number of techniques and price, design, image and trademarks are elements of marketing. Shortly the purpose of marketing is to trigger and encourage purchase, sell. A very short definition of marketing is found in the 750-page textbook Marketing Management (Kotler & Keller, 2006). It identifies one of the shortest definition of marketing as "*meeting needs profitably*". Semiotics is a tool for marketers where the meaning and understanding of signs and symbols are highly considered (i.e. positive values like fun, happy, love, popular). Attraction techniques include action, adventure, animation, catchy jingles, magic, songs and also violence. Sizes, shapes, colour, brand or trademark, material and names are also part of the design.

The ads of HFSS on TV, radio, print media, billboards and on the internet lead children and their parent to believe that it is normal to eat these foods – actually treat foods – everyday (OAC 2007). If HFSS is banned in television ads there will still be a lot of direct or indirect marketing techniques. Old techniques like in store promotions, billboards, buses, metro, neon-lights, the melody of the ice-cream van just combined with new techniques like internet and communities. Six main examples dealing with packaging, portions and distribution of soft drinks, sweets and potato crisps (chips) are given under the following sub-headings: *Growing standard sizes; Evolving extremes; Sizes and prices; Menus at the cinema; Pick and mix – bigger and bigger paper bags, forty shelf metres of sweets located near checkout (cash desks); Potato crisps (chips) no longer only a party product.*

Sales including vending machines with foods of low nutrition value such as soft drinks should not be available in schools etc. Introduction of water fountains in schools and other buildings should be encouraged. A sponsored school has definitely lost its integrity if it accepts product placement in text books where a small picture of a specific brand of chocolate bar appears on every page of a mathematics book. Such marketing cannot be accepted.

As marketing is global worldwide activities on restricting marketing that would endanger children's health should be explored. An example that worldwide activities are possible is the International Code of Marketing of Breast-milk Substitutes (World Health Organization, 1981). The European Charter on counteracting obesity[2] has presented inter alia a package of essential preventive actions. Among many other suggestions the package of essential action includes: reduction of marketing pressure, particularly to children; promotion of breastfeeding; ensuring access to and availability of healthier food; promotion of cycling and walking by better urban design and transport policies.

[1] (Longmans dictionary, 2003)

[2] European Charter on Counteracting Obesity. November 2006

# 1 Introduction

The European Parliament Committee on Environment, Public Health and Food Safety has requested a briefing on *Advertising and other Marketing Practices on Childhood Obesity* addressing the following causes or factors of children's food preferences: 1) exposure to advertising and marketing, 2) effectiveness of self-regulation of media providers about commercials on food and beverages[1], 3) impact of production and distribution on childhood obesity.

The briefing assesses in particular the following questions:

1. To what extent does exposure to advertising and marketing practices influence children's food preferences, consumption and behaviour? This should take into account the fact that some studies affirm and some others deny the effects of advertising on children's childhood obesity.
2. How could advertising campaigns in schools be an asset (good practices)?
3. An overview of effectiveness of self-regulation of media service providers about commercials on food and beverages targeted at children: rate of TV advertising on HFSS products (High in Fat, Salt or Sugar) and in particular on the so called 'Big 6' (= confectionery, pre-sugared breakfast cereals, soft drinks, crisps and savoury snacks, fast food and pre-pared convenience foods). Rate of this kind of TV advertising in particular between 4.00 and 9.00 p.m.
4. An analysis of different types of creative executions used by advertisers to target children as well as new marketing practices (i.e. advergame on the internet): in this context it is crucial to analyse the impact of the production and distribution (packaging, portions, and formulation of foods) on childhood obesity.

[1] Amended TVWF Directive (presented as a Consolidated Text for ease of reading) DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL AMENDING COUNCIL DIRECTIVE 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities.

Article 3 e (2) *Member States and the Commission shall encourage media service providers to develop codes of conduct regarding inappropriate audiovisual commercial communication, accompanying or included in children's programming, of foods and beverages containing nutrients and substances with a nutritional or physiological effect, in particular those such as fat, trans-fatty acids, salt/sodium and sugars, excessive intakes of which in the overall diet are not recommended.*

# 2 General context

## Statistics

**Falling levels of physical activity and rapidly increasing levels of obesity** are now a major factor in many children and adolescent's lives (CFC, 2007). Overweight is inevitably the disorder that precedes obesity. As a child who is overweight or obese has about an 80% risk of being overweight or obese at age 20 (CFAC, 2007), many of these minors will stay obese for the rest of their lives. For an obese 5-year old child there is a 50% risk that he or she will remain obese also as adult. For an obese adolescent this risk increases to 80%. Over 60% of children who are overweight before puberty will be overweigth in early adulthood (Branca, Nikogosian & Lobstein, 2007). A normal weight child has only 7% risk becoming obese as an adult (Cochran, 2008). Obesity in itself is a problem, but it also leads to other diseases and disabilities. See Appendix I.

**Table 1 - Estimated amounts of overweight and obese children in the European Union**

| **Total** | **Whereof** | **Yearly increase** |
|---|---|---|
| Over 22 million overweight and obese children | 17 million overweight | Over one million |
| | Over 5 million obese | Over 300 000 |

Source: author's compilation from Jackson-Leach & Lobstein, 2006

Country statistics on the prevalence of childhood overweight and obesity in Europe are given in Appendix II.

WHO has identified the main drivers behind the obesity epidemic or rather pandemic (worldwide epidemic) as the increased food supply, rising incomes, worldwide changes in dietary patterns and eating behaviour (e.g. eating outside home, snacking between meals) and shift from traditional diets to diets with high fat, saturated fat and sugar. The real price of food is now the lowest in history and the relative lower price for bigger sizes makes those more attractive (Branca, Nikogosian & Lobstein, 2007).

## Existing EU legislation

**The European Union is trying to tackle this by several activities**: Commission Green Paper on *"Promoting healthy diets and physical activity: a European dimension for the prevention of overweight, obesity and chronic diseases"* was presented in 2005 (COM (2005) 637 final) and the White Paper on a *"Strategy for Europe on nutrition, overweight and obesity related issues"* in 2007. The challenge for food, retail and advertising sectors to take actions in areas such as the marketing to children and adolescents of energy-dense foods, high in fat, salt and sugar is spelled out[2]. When it comes to marketing to the young, recommendations and/or legislation in the EU is of great importance, inter alia for alcohol, tobacco, unhealthy foods and television advertising. The following paragraphs highlight some important pieces of legislation in this respect.

[2] 15612/07 Draft council conclusions 5 – 6 dec 2007 paragraph 8, 29 Nov 2007

**Unfair commercial practices - 2005/29/EC.** In the "*Unfair Commercial Practices Directive*" (2005/29/EC) there is legislation on misleading advertising and aggressive sales practices, including provisions aiming at preventing exploitation of vulnerable consumers that shall apply from 12 December 2007. The key elements of the directive are found in table 2 of appendix I. A direct exhortation to children to buy advertised products (e.g. "*Go buy the product*") or persuade their parents or other adults to buy advertised products for them is included under aggressive commercial practices.

**Television Without Frontiers Directive – TVWFD.** In the EU television broadcasting activities are coordinated by directive 89/552/EEC which has been under revision for a number of years. A common position on the revision of the television directive was adopted by the Council on 15 October 2007[3]. One of the objectives of the directive is to protect minors as well as promoting the rights of persons with disabilities. It is spelled out that audiovisual commercial communications shall not cause physical or moral detriment to minors, exploit their inexperience or credulity, exploit the special trust minors place in parents, teachers or other persons (TVWFD 2007 article 3 e (1 g)). A clear reference to marketing of unhealthy foodstuffs is introduced in article 3 e (2) and the term "junk food" is even mentioned in the statement of the Council's reasons[4]:

| Article 3 e (2) | Council's reasons |
|---|---|
| *Member States and the Commission shall encourage media service providers to develop codes of conduct regarding inappropriate audiovisual commercial communication, accompanying or included in children's programmes, of foods and beverages containing nutrients and substances with a nutritional or physiological effect, in particular those such as fat, trans-fatty acids, salt/sodium and sugars, excessive intakes of which in the overall diet are not recommended* | *The common position ensures additional protection for children. Article 3e(2) requires Member States and the Commission to encourage the development of codes of conduct regarding advertising of 'junk food' aimed at children, whilst the quantitative rules on interruption of programmes in Article 11(2) are stricter for children's programmes.* |

It could be discussed if the rules are strict enough as the rules as written in the common position would allow TV-commercials in children's programmes as indicated in bold in the citation from article 11 (2): "*The transmission of films made for television (excluding series, serials and documentaries), cinematographic works and news programmes may be interrupted by television advertising and/or teleshopping once for each scheduled period of at least thirty minutes.* ***The transmission of children's programmes may be interrupted by television advertising and/or teleshopping once for each scheduled period of at least thirty minutes, provided that the scheduled duration of the programme is greater than thirty minutes****. No television advertising or teleshopping shall be inserted during religious services".*[5]

[3] Common position (EC) No 18/2007 adopted by the Council on 15 October 2007 Official Journal of the European Communities C 307E, 18.12.2007. pp 1-21

[4] Source: Common position (EC) No 18/2007 adopted by the Council on 15 October 2007 Official Journal of the European Communities C 307E, 18.12.2007. p 13 and 19.

[5] Source: Common position (EC) No 18/2007 adopted by the Council on 15 October 2007 Official Journal of the European Communities C 307E, 18.12.2007. p 16

There are restrictions in sponsorship and product placement. Member States may choose to prohibit sponsorship logos during inter alia children's programmes. With some derogation, inter alia cinematographic works and films made for audiovisual media services, product placement shall be prohibited. The derogations mentioned above shall not apply to children's programmes. A report on the application of the directive shall later be made including an assessment of television advertising accompanying or included in children's programmes and whether the qualitative and quantitative rules in the directive have afforded the required level of protection (article 26).

# 3 To what extent does exposure to advertising and marketing practices influence children's food preferences, consumption and behaviour?

Several studies affirm the effects of advertising on childhood obesity, at least as a contributing factor. The following paragraphs present the findings of several high-level studies and reports.

**Since the early 1970s** it has been well understood that TV commercials influence food choice, preferences and demands of children and especially younger children (Nestle, 2002).

**WHO-report 2003.** In the report "*Diet, Nutrition and the prevention of chronic diseases"* judged that there is probable evidence between heavy marketing of energy-dense foods and fast food outlets and an increased risk for weight gain and obesity. See table 2.

**Table 2 - Summary of strength of evidence on factors that might promote or protect against weight gain and obesity**

| Evidence | Decreased risk for weight gain and obesity | Increased risk for weight gain and obesity |
|---|---|---|
| **Convincing** | Regular physical activity<br>High dietary fibre intake | Sedentary lifestyles<br>High intake of energy-dense micronutrient-poor foods |
| **Probable** | Home and school environments that support healthy food choices for children<br>Breastfeeding | Heavy marketing of energy-dense foods and fast-food outlets<br>High intake of sugars-sweetened soft drinks and fruit juices<br>Adverse socioeconomic conditions (in developed countries, especially for women) |
| **Possible** | Low glycaemic index foods (the opposite to such foods are e.g. soft drinks) | Large portion sizes<br>High proportion of food prepared outside the home (developed countries)<br>“Rigid restraint (e.g. strict dieting)/periodic disinhibition (e.g. binge eating)” eating patterns |
| **Insufficient** | Increased eating frequency | Alcohol |

Source: Adapted from WHO, 2003;Parliamentary Office of Science and Technology, 2003

**Hastings report 2003.** The WHO report was followed by one of the biggest reviews of the commercial impact on children, *Review of the research on the effects of food promotion to children* (Gerard Hastings and colleagues 2003), which was made on request of the Food Standards Agency in the United Kingdom. The systematic review of 122 studies showed inter alia that children notice food promotion and tend to choose foodstuffs with a high content of fat, sugar or salt rather than foodstuffs with a low content of fat, sugar or salt, after having seen TV-commercials. The effects are significant regardless of other influences and is applicable both on the brand level (e.g. crisp of brand A instead of crisp brand B) and the category level (crisps instead of fruit)[6].

[6] (Ekström & Sandberg 2007, OAC 2007 and CFC 2007).

**Protection of minors in TVWFD.** On 15 December 2003, the Commission adopted a communication on the future of European regulatory audiovisual policy and stressed that regulatory policy in that sector has to safeguard certain public interests such as the protection of minors and consumer protection and to enhance public awareness and media literacy, now and in the future (TVWFD, 2007).

Studies have documented that a high percentage of advertisements targeting children feature sweets, fast foods, and snacks and that exposure to such advertising increases consumption of these products. While consumption of non-nutritious foods per se may not be harmful, over consumption of these products, particularly to the exclusion of healthier food, is linked to obesity and poorer health. Several studies have found strong associations between increases in advertising for non-nutritious foods and rates of childhood obesity (APA, 2004).

In a major report in 2006, the Institute of Medicine of the National Academy of Sciences (IOMNAS) in the United States concluded that food and drink marketing, among many other factors, does influence the preferences and purchase requests of children and affect their consumption (Hawkes, 2007 ).

A recent briefing paper on "*Children's health or corporate wealth? The case for banning television food advertising to children"* from Australia (CFAC, 2007) is crystal clear stating that *Television viewing promotes obesity: inactivity AND overeating.* Being just inactive watching TV is less associated with obesity than television advertising and energy intake. There is a strong link between the numbers (volume) of TV advertisements for sweet or fatty foods and the prevalence of child overweight (CFAC, 2007).

The Swedish Consumer's Association maintains that beyond reasonable doubt marketing influences children to consume more so called junk food or unhealthy foods if you look at the amount of money that is spent on this type of marketing. (Ekström & Sandberg, 2007) If advertising does not affect children's commercial recall and product preferences the billions spent annually by advertisers in commercial appeals to children would represent a surprisingly poor investment (APA, 2004).

Five major reviews of the evidence on the impact of food marketing to children showed agreement on the following five key points: awareness, influence on food preferences, attitudes, purchase requests and consumption.

**Table 3 - Influences and effects of food marketing - summary of evidence**

| Year of major review | 2006 | 2004 | 2003 | 2003 | 1987 |
|---|---|---|---|---|---|
| Children unaware of persuasive intent | √ | √ | √ | √ | √ |
| Influence food preferences | √ | √ | √ | √ | √ |
| Generate positive beliefs | √ | √ | √ | √ | √ |
| Influence purchase requests | √ | √ | √ | √ | √ |
| Influence consumption | √ | √ | √ | √ | √ |

Source: Adapted from CFAC, 2007;OAC, 2007

In 2004, the British Office of communications (Ofcom) concluded that advertising does play a "relatively small" role in food choice, that action is needed but not going as far as banning advertising all foods to children (Hawkes, 2007).

The International Chamber of Commerce (ICC) which globally leads the self-regulation of marketing practices argues that advertising has a minor influence on children's food choices (Hawkes, 2007).

The ICC maintains that there is no scientific evidence that restrictions on advertising would have an impact on the incidence of obesity and that advertising bans would be disproportionate and ineffective (Hawkes 2007). Also the food, beverage and advertising industry have used the lack of evidence-argument (OAC, 2007) together with the following arguments (counterarguments found in the literature are added):

- Children later in life will anyhow be exposed by advertising; therefore they should be taught media awareness rather than reducing advertising. This is denied by public health response as possible "media literacy campaigns" are unlikely to teach children to become critical consumers.
- TV bans would anyhow be circumvented by other forms of advertising. Public health response: Reducing TV ads would be the initial step in reducing promotions to children.
- Industry has the right to commercial free speech. Public health response: The Supreme Court of Canada has agreed that Quebec laws may restrict marketing as children's right to be free from commercial exploitation was a higher priority than free speech.
- Loss of income from advertising would affect the quality of children's television programmes. Public health response: Such restrictions in Quebec have had little impact on the quantity or quality of children's programs (OAC, 2007).

The Quebec legislation on restricting commercial advertising directed to children under thirteen years has been in force since 1980 (Jeffery, 2006). See table 3, in Annex I. Manufacturers say there is no unhealthy food only an unhealthy diet. Nevertheless the healthy diet has to be promoted and the unhealthy food marketing cannot continue to proliferate.

A number of studies has shown that marketing influences children's attitudes to foods, what they buy or what they get their parents to buy and that it influences what they eat. The problem is that the great majority of foods that are advertised are high in fat, salt and/or sugar (CFC, 2007). To conclude, there is evidence that fatty foods and/or high sugar foods and their marketing are involved in childhood obesity.

| **Table 4 Marketing of unhealthy foods as a contributing factor to overweight and obesity** | | | | |
|---|---|---|---|---|
| Heavy marketing of fatty foods and/or high sugar foods (HFSS) | Affects food choice<br>Desire<br>Request<br><br>Influences pester power<br>Demand<br><br>Attitudes<br>What is normal tend to change<br>Preference<br><br>"Need" | Triggers and encourages purchase of HFSS inter alia energy-dense micronutrient poor foods<br>fast food<br>sugars-sweetened soft drinks | High and regular intake of HFSS (Overconsumption) and irregular and falling levels of physical activity | Increasing levels of Overweight and Obesity |
| | IMPACT | IMPACT | IMPACT | IMPACT |

Source: Author´s compilation from different sources.

# 4 How could advertising and/or communication campaigns in schools be an asset (good practices)?

Schools definitively have a significant impact on what children eat through policies, healthy school environments and curriculum. Norway pioneered this already in 1926 when the 'Oslo Breakfast' was launched in the capital. The daily school programme began with an eating exercise, a free breakfast meal for all school children. The idea spread and rapidly became a national institution. Milk, fruit, raw vegetables, a spoonful of cod-liver oil and various sandwiches were provided in the breakfast. Organised by the Norwegian National Nutritional Council, the aim of the breakfast was not only to provide the pupils with energy and nutrients but also to show children how to choose the right kind of food. Teaching pupils eating well means eating proper food in the right proportions and lays a foundation for good health (Courier April 1957). Children learn both from the environment, from school education and from seeing how adults behave. It is therefore necessary that all school activities are permeated by the same message about what is meant by healthy dietary habits and physically active lifestyle. It is possible by using broad school-based measures to reduce the development of obesity among children and young people but it demands investment in both knowledge acquisition and supportive environment to be effective (Swedish Action Plan, 2005).The school environment is of utmost importance since children spend a considerable amount of their childhood there. School programs and active transport interventions are highly cost-effective (World Health Organization Europe, 2006).

As school is compulsory children have small possibilities to avoid the increasing commercial exposure in schools. Those who now and then skip class are most likely to get even a greater portion of commercial exposure elsewhere (author's assumption).
Another fact that is important regarding schools and commercialism is that the commercial message delivered in schools may be regarded as (tacitly) endorsed by teachers and other school staff. This fact enhances the effectiveness of the advertising in schools[7]. Campaigns or non-commercial communication in schools could be effective for the same reason.

**Need for changing the food and overall environment in schools**

To reduce overweight and later obesity it is necessary to change the school environment, what is taught, what is eaten (CFC, 2007) and the rest of the environment, as well as teachers and youth leaders training. The curriculum and the hidden curriculum (what teachers do) are important. Children's schoolyard should not be the nearest square with grocery stores and other shops selling sweets and tobacco. This would include food knowledge as well as physical activity. A summary of good practices are given in the table below.

Marion Nestle stated that one place to begin with dietary change is with children. As 80% of overweight and obese children risk to be overweight and obese when they get adult this is indeed of utmost importance. The activities that Nestle suggested in 2002 are:

- Banning commercials for foods of minimal nutritional value from schools.
- Banning commercials for foods in television programmes directed to children.
- Better school lunches.

[7] (APA 2004).

The actions should be made school by school, district by district, state by state (Nestle, 2002). Possible actions in schools are described in the following paragraphs.

**Biology and food knowledge.** School gardens could be introduced or reintroduced. School gardening in Sweden dates back to the early nineteenth century (Åkerblom, 2005). It might be a potential for increasing the physical activity for school children and their knowledge about the plants grown (berries, fruits and vegetables).

**Cooking skills**. Another important measure would be to teach cooking skills and to make balance in-between-meals already in the Kindergarten. Cooking skills could be combined with several other subjects e.g. art, biology and mathematics. E.g. a task for high school children could be to make a paper on Sea Food with recipes (cooking skills, language and multimedia), facts with pictures or drawings (art) on different species e.g. lobster, mussels, shrimps (biology). Allergy to sea food, haul statistics in different countries and environment issues could also be a part of the biology element. The mathematics moment could comprise: calculations on prices to go with the recipes, data on calories for one serving and perhaps recalculating recipes from four persons to the entire class (author's example on Sea Food task). Similar exercises could be made for other food categories. Food skills should be a compulsory element of the curriculum so that every child leaving school would know how to make simple nutritious meals.

**The European day of healthy food and cooking** on 8 November 2007. The initiative launched by Commissioner Kyprianou is aimed to interest children in the food they eat and to teach them basic nutrition facts in an attractive way inter alia on the internet[8].

**Physical activity and Sport.** Currently, only 8% of elementary schools and less than 7% of middle schools and high schools have daily physical education requirements in the United States. (OAC NEWS, 2008) The UK government has announced an ambition for pupils to take part in five hours of sport a week. (CFC, 2007). In the United States and also United Kingdom free pedometers were distributed to high school children to encourage physical activity (Lööw Lundin, personal communication 2008, South West High School and Lancashire Telegraph respectively. 2008).

**Food served.** "5 A Day" type programmes are national multi-stakeholder efforts to increase fruit and vegetable consumption in the overall population or special target populations such as schoolchildren and workers in the workplace (WHO Fruit and vegetable report, 2003). Free fruit and vegetables are now available in England for 4-6 year old schoolchildren. Children are also involved in the creation of healthier school meals (CFC, 2007).

**Mapping of availability of soft drinks** in Swedish schools by the Swedish Dentist association is a good example. They recommend that schools shall set an example for children and teach them healthy eating habits. Soft drinks and confectionary should be linked to parties and not to everyday foods. Swedish schools shall be zones free from confectionary and soft drinks[9].

**Vending machines**. The vast majority of statutory regulations and self-regulations that have been developed between 2004-2006 concerns product sales (e.g. soft drinks in vending machines). Since September 2005 France has a law banning vending machines with foods and drinks in schools (Hawkes, 2007).

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[8] at http://eu.mini-chefs.eu. (Health & Consumer Voice, 2007).
[9] (Swedish Dentist Association, 2007).

**Ban on Marketing.** In New Zealand it has been suggested that no commercial promotion of foods and beverages to school children (OAC, 2007) under 14 should be carried out. The author maintains that a sponsored school has definitely lost its integrity if it accepts product placement in text books where a small picture of a specific brand of chocolate bar appears on every page of a mathematics book.

**Vaccination campaigns** are abundant throughout the world. Is it possible to "vaccinate children" from the influence of marketing?

**Table 5 - A summary of good practices and ideas for the school environment**

| *What is taught* | *What is eaten and drunk* | *Other factors* |
|---|---|---|
| Curriculum, training of youth leaders and teachers | Free fruit and vegetables available School fruit schemes (EC, 2008) | Healthy school environment and city planning |
| Teach cooking skills and combine with biology and mathematics Interactive cooking lessons | Healthier school meals | Reduce possible obesogenic environment by increasing activities and introduce facilities that promote physical activity |
| Introduce or reintroduce school gardens to improve biology, food knowledge and opportunities for physical activity. | Fruit and vegetables promotion initiatives in schools and/or the entire society | Promote stair use. This should by no means not exclude elevators for disabled pupils and temporary needs due to sport injuries and similar. |
| Increase weekly hours of sport activities | Consider the availability of soft drinks etc | Safe bicycle-priority routes, encouraging walking to school, improving street lighting |
| Distribute free pedometers to high school | Restrict advertising and promotion | Awareness of the impact of outlets near schools |
| Restrict indirect advertising (e.g. sponsorship by product placement in text books with company logos etc.) | Ban on food and soft drink vending machines in France (WHO, 2007); water fountains | No commercial promotion of foods and beverages to school children in New Zealand (OAC, 2007) and Portugal. (Branca, Nikogosian & Lobstein, 2007) |
| Campaigns to raise awareness of HFSS e.g., the link between dental caries and the intake of sugar in different forms | Price policy at school cafeterias can increase sales of fruits and vegetables (Nestle, 2002) | No TV advertising of foods and beverages during programmes where children make up a significant proportion of the viewing audience |
| Raise awareness on hidden sugar in soft drinks etc | School shops and cafeterias are not allowed to sell soft drinks, candy bars and crisps in Latvia (Branca, Nikogosian & Lobstein, 2007) | No in school marketing like the “Channel One” which is a sponsored part of the education in the United States |
| Combine what is taught and what is offered. E.g. a fruit passport, vegetable passport, fish passport where children could tick the ones they have tried | Campaigns to improve foods served in school; Campaigns to promote healthy foods; Campaigns to restrict advertising and promotion | Home and school interactions. Reduced television viewing |

Source: author’s compilation from various sources

# 5 An overview of effectiveness of self-regulation of media service providers about commercials on food and beverages targeted at children

This chapter first defines what unhealthy food is. Subsequently, it deals with the effectiveness of self-regulation (SR) of marketing of this kind of foods and then the rate of TV advertisements (ads) for this kind of food and especially the rates of TV ads between 4 – 9 p.m.

## 5.1 What is unhealthy food?

In the common position of the TVWFD the following categories are mentioned: *Foods and beverages containing nutrients and substances with a nutritional or physiological effect, in particular those such as fat, trans-fatty acids, salt/sodium and sugars, excessive intakes of which in the overall diet are not recommended*.

In order to bear nutrition and health claims foods have to comply with specific nutrient profiles which will be established by 19 January 2009 for food and/or certain categories of food. These nutrient profiles shall take especially *fat, saturated fat, trans-fatty acids, salt/sodium and sugars* into account. The European Food Safety Authority (EFSA) provides relevant scientific advice already in January 2008.

**Acronym and umbrella terms for unhealthy foods**.

**The acronym HFSS** means High in Fat, Salt or Sugar and is inter alia used by the British authorities (Food Standards Agency, 2007). In addition, there are big four, big five and big six food items in the literature, but on the internet "junk food" gives the most hits (5 900 000 in January 2008). See table below for more information on the categories of unhealthy foods found in literature. Besides the foods in the table a Swedish study has categorised a few more foods as unhealthy and introduced an OHM-index (ohälsosam mat index or unhealthy food index) to map different forms of marketing (direct ads including leaflets and magazines, television ads and internet marketing).

**OHM-index.** Foods were categorised into twelve groups, whereof four were considered as unhealthy for children: soft drinks and sugared beverages; sweets including crisps and chocolate; sweet desserts and in between meals; cookies and bakery goods. For sweet desserts and in between meals five subcategories were identified as ice cream, chocolate pudding, fruit-syrup cream, jam and marmalade. The OHM-index was defined as the percentage of ads for these four food categories of the total food ads (Ekström & Sandberg 2007; Sandberg, 2008).

**Scoring system for unhealthy foods and Ofcom rules**

The UK Food Standards Agency does not use the term "junk food". The agency has developed a scoring system - **Nutrient Profiling model** (NP model) - for classifying HFSS in order to differentiate them from healthy alternatives. The purpose of the NP model, in use since April 2007, is to serve as a tool for the British Office of Communications (Ofcom) to use in the restriction of television ads of HFSS to children. The Food Standards Agency is not promoting the NP model for any other use. By restricting HFSS foods and allowing continued promotion of foods that are important in children's diets e.g. fruit and vegetables, the balance of television advertising to children is improved. The impact of the NP model will be reviewed spring 2008 (Food Standards Agency, 2007).

Ofcom is the UK independent regulator of radio, television, tele-communication and wireless communication services. To tackle childhood obesity in relation to television advertising Ofcom identified the following regulatory objectives in 2006:

- *reduce significantly the exposure of children under 16 to HFSS advertising, thereby reducing opportunities to persuade children to demand and consume HFSS products;*
- *enhance protection for both older and younger children as well as parents by appropriate revisions to advertising content standards, so as to reduce children's emotional engagement with HFSS advertisements, and reduce the risk that children and parents may misinterpret product claims, and to reduce the potential for pester power;*
- *avoid disproportionate impacts on the revenue of broadcasters;*
- *avoid intrusive regulation of advertising during adult airtime, given that adults are able to make informed decisions about advertising messages.*

The above measures were included in the rules in February 2007 (content rules), April 2007 (scheduling rules for existing ads), July 2007 (scheduling rules for new ads) and recently (January 2008) the rules were extended to cover children up to 15 years. Ofcom is monitoring the trends and effects of these rules and will report in the end of 2008 (Powell, 2008 personal communication).

**Table 6 - Categories of unhealthy foods from the literature.**
For HFSS possible high content is shown in italics.

| Food category | Big 4 | Big 5 | Big 6 | Junk food | HFSS | Rate in TV ads |
|---|---|---|---|---|---|---|
| Soft drinks and sugary beverages | x | x | x | x | *sugar* | More common after 4.30 pm |
| Crisps /savoury (salty tasting)snacks | x | x | x | x | *fat salt* | Significant more common 3.30-4.30 pm |
| Confectionary | x | x | x | x | *sugar* | Significant more common 3.30-4.30 pm |
| Pre-sugared breakfast cereals | x | x | x | x | *sugar* | Muesli bar significant more common 3.30-4.30 pm |
| Fast food | | x | x | x | *fat sugar* | More common after 4.30 |
| Prepared convenience foods | | | x | | *fat sugar* | |
| Chocolate | | | | x | *fat sugar* | |
| Ice cream | | | | x | *fat sugar* | |

Source: Author´s compilation from Hastings, 2003; Ofcom, 2004; Ekström & Sandberg, 2007; OAC, 2007.

## 5.2 The effectiveness of self-regulation

Self-regulation (SR) is a type of voluntary initiative, which enables the economic operators, social partners, non-governmental organisations or associations to adopt common guidelines amongst themselves and for themselves. While SR might be a complementary method of implementing certain provisions of the TVWFD it should not constitute a substitute for the obligations of the national legislator (TVWFD, 2007). SR is a system where the advertising industry actively policies itself and the three parts of industry (advertisers, advertising agencies and the media) work together (DG SANCO, 2006).

Where there exists self-regulation it has not been regarded as effective. In Australia both regulations ad SR are considered ineffective at protecting children from large volumes of TV ads for HFSS (CFAC, 2007). Where there exists legislation even the legislation has not been regarded as effective either (Author's conclusion from inter alia CFAC, 2007).

The British Office of Communications, Ofcom, acknowledges that SR by the food industry and by broadcasters could play a part in reducing the influence of food advertising, but is not persuaded that voluntary SR alone is sufficient (Ofcom, 2004).

**1970s attempt for legislation in the US**. In the 1970s, the Federal Trade Commission in the United States considered banning all television advertising to young children. Congress, responding to pressure from the television and advertising industry, forced the FTC to abandon this proposal by threatening the agency's funding. Although the FTC abandoned that effort to restrict advertising to children, it stated in its final order that the issue of advertising to young children is one that should remain a public concern, given the compelling body of scientific evidence documenting young children's unique vulnerability to commercial persuasion. Since that time, the advertising industry has recognized the sensitivity of these issues in their self-regulatory advertising guidelines. In a report by the American Psychological Association they maintain that these guidelines are exceedingly vague, the compliance is completely voluntary, and enforcement is not actively pursued (APA, 2004).

Right now there is a global Dump Soda Campaign carried out by consumer organizations which urge companies to consistently limit marketing in each of the countries in which they do business. *Last year in the U.S., Coke and Pepsi actually supported legislation that would have removed non-diet soft drinks from schools. Coca-Cola agreed to front-label disclosure of calorie content in Australia. But advances like those are often confined to just one country, in response to national political pressures.* Bruce Silverglade, CSPI director of legal affairs states "*We want Coca-Cola and Pepsi to adhere to best practices on a world-wide basis. These are global companies and their marketing policies should be consistent around the globe*." The consumer organizations' have written letters where they call on *Coca-Cola and PepsiCo to cease all marketing of sugar-laden or caffeinated beverages to children under 16; stop selling sweetened beverages, including sports drinks and non-carbonated fruit-flavoured beverages and teas in all public and private elementary, middle, and high schools; prominently display the calorie content per serving on the front labels of containers; include rotating consumer alert messages on the labels of sugary beverages such as "High sugar—drink only occasionally"; and limit sponsorships promoting physical activity and health to blind trusts overseen by government agencies. The letters also called on the companies not to oppose small taxes on soft drinks, the revenues from which could be used for physical activity and nutrition programs.* Soft drinks are already taxed in some parts of the United States and Canada"(CSPI, 2008).

**Advantages and disadvantages of Self Regulation**[10]

*Advantages*

- Advertising self-regulation codes today in Europe aim to cover not only pure advertising but also other forms of commercial or marketing communication, finding it important to cover all advertising techniques, any medium or distribution channel based on new technology or any new trend (DG SANCO, 2006).
- An alternative to legislative bans on certain forms of advertising, but authorities cannot offer a guarantee that such bans would not be introduced (DG SANCO, 2006).
- Codes can have a useful role to enable firms to comply with UCP (DG SANCO, 2006).
- Could be introduced faster than legislation
- Could offer copy advice ideally provided free of charge (DG SANCO, 2006)
- Could play a part in reducing the influence of HFSS ads but not alone (Ofcom, 2004)
- Easier for food industry to accept (APA, 2004)
- The needs to have detailed legislation is avoided (DG SANCO, 2006)

*Disadvantages*

- Ads to children should remain a public concern, given the compelling body of scientific evidence documenting young children's unique vulnerability to commercial persuasion. (APA, 2004)
- Code is exceedingly vague, compliance is completely voluntary, and enforcement is not actively pursued. (APA, 2004)
- Complaints and monitoring procedures do not work (CFAC, 2007)
- Difficulties of gaining consensus and commitment on a permanent basis across a wide spectrum of stakeholders, where robust action may be needed to achieve the desired effect (Ofcom, 2004)
- Reactive (to public complaints); not proactive (CFAC, 2007)
- Refers to individual ads and not to long term compound effect of similar messages (Branca, Nikogosian & Lobstein, 2007)
- Slow improvement, e.g. advances are often confined to just one country, in response to national political pressures; only in one country when global marketing methods and policies should be consistent around the globe ( CSPI 2008)
- Slow in itself because of high burden of proof because of lack of definitions and different interpretation of the code (CFAC, 2007)
- Some SR refers only to TV ads and not to other marketing activities that might proliferate instead. (OAC, 2007)
- SR barely limits the marketing tactics (CFAC, 2007)
- The statutory authorities cannot abdicate public responsibilities (DG SANCO, 2006)

**Example from New Zealand on slow and ineffective SR:** An advertisement which promoted potato crisps as suitable for school lunches was withdrawn after a complaint. When this was done the advertisement had been running for six to eight weeks and the public was not informed about the withdrawal until a month later. This left the public in belief that potato crisps were suitable as an everyday food e.g. school lunch (OAC, 2007).

[10] Source: author's compilation from different sources.

**For all systems,** whether it is regulation by government or authorities, co-regulation (a legal link between SR and the national legislator or SR there will always be borderline cases (e.g. the grey area between SR and co-regulation), need for interpretation (e.g. definitions of misleading), control and sanctions (to be effective). That complaints and monitoring procedures might not work is not solely a matter for SR, but also for legislation. It is important that it is easy to find where to complain. Decisions should be published to increase transparency and increase public confidence (DG SANCO, 2006).

The following four basic components have been defined by the European Commission as good practice SR model on advertising (DG SANCO, 2006):

- Effectiveness: Provision of copy advice, complaint handling, sanctions, consumer awareness.
- Independence: Involvement of interested parties (relevant stakeholders) in Code drafting. Involvement of independent persons in the handling of complaints.
- Coverage (advertising and other types of marketing or commercial communication). All new trends should be kept under review.
- Funding.

**Self-regulation in the EU**. Eleven companies representing 50% of the food and beverage advertising in the EU have signed an agreement for food advertising voluntary measures to be company-specific implemented by the end of 2008. As a minimum they will inter alia have no communication related to products in primary schools, except where specifically requested by or agreed with, the school administration for educational purposes. They will have no advertising of products to children below 12 years on TV, print media and the internet, except for products which fulfil specific nutrition criteria based on accepted scientific evidence and/or applicable national and international dietary guidelines (Responsible Advertising Organisation, 2007).

### 5.3 Rate of TV advertising on HFFS products (High in Fat Sugar or Salt)

TV is the easiest way for marketers to reach a large number of people. Much is known about the impact of TV ads in different sectors. Marketers are well aware of the power of the TV-media. It gives them access to children at much earlier ages than print media (OAC, 2007).

**The average rate of TV-watching among children**. In the UK children watch TV (and have PC-activities) nearly 4 hours a day (Branca, Nikogosian & Lobstein, 2007). Recent data indicates that children in the United States spend approximate 3 hours watching television (FCC, 2007). 9-11 year old Swedish children use TV and the internet 2,5 hours a day. In New Zealand TV-watching exceeds 2 hours every day. In the weekends some children watch more than that, in total more than 8 hours (OAC, 2007).
In Sweden 93% of all 9-14 year old children watch television 1,5 hour a day. 14% of all 9-11 year children watch 3-4 hours a day. 2% watch TV over 5 hours a day. 66% of Swedish children watch television, video or DVD every day. Children watch more TV than adults in morning before going to school or Kindergarten and also more than grown-ups in the evening (Ekström & Sandberg, 2007).

**The amount of ads directed to children**

A survey, made by Consumers International 1996, measured the amount of ads directed to children in Australia, US and eleven European countries. The countries that had the most TV ads were Australia, US and UK. Sweden and Norway had the lowest amount (Ekström & Sandberg, 2007). The OECD countries that had the most TV ads 1996 were in descending order: Australia, United States, United Kingdom, France, Greece, Finland, Germany, Denmark, Netherlands, Belgium, Norway (TV 3*), Austria, Sweden (TV 4*). The average number of food ads per hour ranged from 1 to 12 (CFAC, 2007) (* No ads in other channels).

A Swedish survey showed that most of the ads are in programs (62%). Among what is advertised toys come first (32%), then home electronics (25%). Food ads came on the third place with 9% of the ads or 213 out of 2275 ads (Ekström & Sandberg, 2007).

**Facts about TV ads targeted to children.**

- Any product10-12 ads directed at children per hour in New Zealand, Australia, US and UK[11].
- TV food ads targeted to children:
  In Australia there are no restrictions on the volume of TV ads aimed at children except for minor time limits in "C" programs meaning programs sent between 7-8 a.m., 4-8.30 p.m. on weekdays and 7-8.30 Saturday, Sunday and school holidays (CFAC, 2007).
- Unhealthy food ads targeted to children:
  The last 10 years Australian studies have shown that 55 – 81% of all foods advertised are for unhealthy foods high in fat and/or sugar (CFAC, 2007).

**TV ads not targeted to children**

- Ads not directed to children but shown during children's TV viewing times.
  Compared with adult viewing hours food and beverage ads are twice as common during children's viewing hours (CFAC, 2007).

**What is the rate of TV ads for this kind of food?**

80% of all food ads, when children look at terrestrial channels are for HFSS[12]. A Swedish study has shown that 80% of the food ads are shown between 6 – 9 pm in connection to documental soap operas (28%), TV-series (26%) and children's programs (24%). The results from the study on TV ads were similar to the internet study showing that no ads were found for fruits and vegetables, meat, fish poultry egg and sausages. There were no soft drink ads and no ads for ice cream and sweet desserts, cookies and bakery goods, which might be a result of self-regulation. Of the food TV ads 13% were for sweets, chocolate and crisps and 11% for fast food chains (Ekström & Sandberg, 2007).

During children's television hours confectionary and fast foods ads are most frequent during all timeslots and especially children's weekend viewing morning. Weekend mornings are possibly also a time when children watch TV alone. 1 out of 3 TV advertisements during children's viewing times in Australia are for food (CFAC, 2007). In addition, Australian studies over the last 10 years have consistently shown that 55% to 81% of all foods advertised are unhealthy foods high in fat and/or high in sugar (CFAC, 2007).

[11] (OAC, 2007)
[12] (Food Standards Agency, 2007)

In a Swedish study, toy ads were sent in the mornings and food ads in the evenings. In the majority of these ads no foods were shown. When foods were shown, several foods were shown at the same time (e.g. picnic). Drinks but not soft drinks were shown as eye-catchers. Also sweets, chocolate and crisps were shown in other ads than those intending to sell foods (Ekström & Sandberg, 2007).

There were more ads for foods high in fat and/or sugar than other foods during children's TV viewing times in New Zealand 2005 (OAC, 2007).

It is interesting that in toy ads, foods were shown in 4% of the cases. The only food categories that were shown in toy ads were: drinks 30% and 70% were sweets, chocolate and crisps (Ekström & Sandberg, 2007).

**What is the rate of TV ads for this kind of foods at 4 – 9 pm?**

A recent survey in New Zealand has shown that 37% of the ads (around 14 food ads per hour) in weekday afternoons were for food (CFAC, 2007). Between 3.30-4.30 p.m. ads for chips, biscuits, muesli bars and confectionary were significantly more common in New Zealand (OAC, 2007). After 4.30 p.m. the exposure of these foods declined for the benefit of sugary drinks and fast foods (OAC, 2007).

Although TV-commercials are not allowed to be directed to children below 12 years in Sweden, there are indeed TV-commercials those hours when children frequently watch television (Ekström & Sandberg, 2007). The majority (66%) of the commercials were in the evening and more commercials are shown on weekdays than during the weekend. The majority (70%) came as commercial breaks rather than between different programmes. Most of the commercials were repetitions (between 58-95% depending on the channel). Only 12% of the commercials were shown in connection to a children's programme. 53% were sent in connection to TV-series. The total amount of food advertisements has increased between 2005 and 2007. Among foods advertised beverages including soft drinks have the highest percentage - 32% 2007 to be compared with 15% in the same study 2005 covering the commercial channels Cartoon Network TV 3, TV 4 and Kanal 5 in Sweden. A total of 72 hours were recorded in the period 6-10 March 2007; mornings 6-9 am and evenings 6-9 pm. (Sandberg, 2008).

**Impact**

The association between time spent watching TV and obesity has been observed and significant associations were found. In 12-17 year-old adolescents the prevalence of obesity increased by 2% for each additional hour of TV-watching (Dietz & Gortmaker, 1985). There is a strong positive relationship between TV ads for sweet or fatty foods and the prevalence of overweight in children (CFAC, 2007). Several studies indicate that the amount of hours watching television is more related to children's overweight than diet and physical activity. Researchers behind a long term study (starting in the mid 1970s) in New Zealand are convinced that watching television is a big contributing cause to childhood obesity. 1000 children born 1972 – 1973 have been followed for twelve years. Their Body Mass Index (BMI[13]) and their TV-habits were checked since children were 3 years old. A remarkable connection between overweight and TV-watching was found regardless the BMI of their parents and their socio-economic status.

[13] BMI is an index of Body weight in kg divided by length in metre x length in metre

This link was remarkable strong for teenage girls (Ekström & Sandberg 2007). Other studies show similar results: i.e. a Belgian study (2005) showed that children between 5 to 15 years old who watched television a lot were more overweight ten years later than a group who did not watch TV that much (Ekström & Sandberg 2007, Ofcom 2004).

Ofcom presented a discussion paper[14] on "*The future of children's television programming"* in October 2007 which gives a comprehensive view of the history, present situation and the future Research in these fields has to be strengthened and efficiently co-ordinated as to facilitate comparisons and statistics from different countries.

[14] See http://www.ofcom.org.uk/consult/condocs/kidstv/kidstv.pdf

# 6 Different types of creative executions used by advertisers to target children as well as new marketing practices

Marketing is the activity of deciding how to advertise a product, what price to charge for it etc, or the type of job in which you do this (Longmans dictionary 2003). It consists of a great number of techniques and price, design, image and trademarks are elements of marketing. Shortly the purpose of marketing is to trigger and encourage purchase, simply to sell. A very short definition of marketing is found in Marketing Management (Kotler & Keller, 2006). It identifies on e of the shortest definition of marketing as "*meeting needs profitably*". In a review, carried out by Corinna Hawkes for the WHO (Hawkes, 2004), marketing was referred to as processes that are very visible to the consumer, i.e. advertising and promotion. Six marketing practises widely used by companies were identified: television advertising, in-school marketing, sponsorship, product placement, internet marketing and sales promotions.

## 6.1 Marketing methods and examples

Nowadays the doorstep seller has been replaced by telephone sellers (computers programmed for random calling) and telemarketing. Aeroplane advertising with big banners has been replaced by electronic motorways such as banners and pop up menus on internet websites (author's examples). Semiotics is a tool for marketers where the meaning and understanding of signs and symbols are highly considered (Gustafsson & Westholm, 2003). Art directors could ask themselves what would happen if the symbol is silver instead of golden; the shape is round instead of a box.

**Table 7 - Semiotics and attraction techniques**

| | |
|---|---|
| Attraction techniques | Action, adventure, animation, catchy jingles, magic, melodies, songs, sport, violence |
| Emotions, Value | Easy, fun, good, happy, humour, love, popular, Saturday-sweets, success, winning |
| Size | Big, giant, little, normal, smågodis (small candy), super |
| Age | Kinder surprise (in Sweden Kinder ägg [1)], |
| Shape etc. | Round (e.g. sign showing the different available toys in fast food meal on door to hamburger restaurant), screw-top, weekend-pack |
| Colour | Golden, pink, red, multi-colours especially on sweets |
| Origin | Brand, trademark for recognition |
| Material | Bottle (glass/plastic), can, cup, paper (glossy, waxed) |
| Name | Gulp[2], Happy Meal[3], Hollywood[4], Kalaspuffar[5], Non-stop[6] , Starwars[7] |

Source: author's compilation from various sources [1]confectionary and toys combined; [2]Gulp soft drink; [3]fast food with toy; [4c]meal available at cinema chain; [5]breakfast cereal (kalas=party); [6]multicoloured dragées filled with chocolate; [7]type of ice cream in 1999.

The names included in bottom of the table cover most HFSS-categories shown in section 5. An attempt to show and exemplify different types of marketing is made in Appendix III.

**A new emerging trend is *buzz marketing* (e.g. online) and *word of mouth***. In 2002 Procter and Gamble (P&G) created a special division called *Tremor*. They recruited 250 000 teenagers from 13 to 19 to form a panel which was asked to talk with friends about new products and concepts. 75 % of the panel members were female. The panel is not paid in cash, but get product samples etc. (DG SANCO, 2006).

**Attractive offers** have been used in marketing for hundreds of years but as new technique arrives it is possible to make the marketing even more efficient**.** The crisps example: the picture shows how marketing of crisps is promoted through the consumer's desire to communicate by mobile telephones. This offer likely attracts children with their own mobiles. In Sweden 49 % of all 10-12-year old children, 85% of 13-15-year old teenagers and 95 % of 16-18-year old teenagers have their own mobile (SCB, 2005).

This promotional campaign encourages people to buy 4 bags (300 g each) of crisps. Four bags of crisps cost about 72 Swedish crowns (about 8 EUR) and give over 5000 calories. If you should eat the same amount of calories from apples you have to eat more than ten kilos, but the apples do not give you any mobile money bonus[15].


***Picture:*** Fill your mobile with crisps. Collect 4 bags, get 100 Swedish crowns (about 11 EUR) to call for. Photo: Kristina Sjölin September 2007.

**In store promotion linked to mobile phones, physical activity and website**. A chocolate manufacturer promoted their products in stores December 2007. A plastic bag with inter alia the text: God och glad (good and glad), pick 4 optional chocolate bars in the bag and you will get a ski-pass. A reference was made to the webpage and a contest "*Win your winter. Alpine mobile ring tone to everybody who participates in the contest*" (author's example on Cloetta Fazer, 2007).

[15] (Author's calculations from www.slv.se/ldb food database).

An example from Iceland where marketing is targeted to children and adolescents is to **collect bottle caps and bar-codes from soft drinks to win a DVD or play station** (Ekström & Sandberg, 2007).

There are too many activities that are directed to children and attract them to interact with the websites (trademarks on the internet, mascots, comics. children's clubs, contests and lotteries). Children recognise brands before they can read, se appendix IV. Children are too young to understand the hidden commercial message behind all this (The Swedish Consumer's Association, 2007).

Some of the examples found in appendix III are explained below.

**Blurred commercial messages and host selling.** The endorsement of products through a host e.g. popular cartoon figures (Beder, 1998). "Host selling" is any character endorsement that has the effect of confusing a child viewer from distinguishing between programme and non-programme material (FCC, 2007).Advertisements with cartoon figures are sometimes put in the breaks of TV-programmes and thus the distinction between the non-commercial programme and the commercial message is blurred. The borderline between commercial and non-commercial communication is not clear especially on the internet and on TV. The commercial message was found to seldom be clearly identified on the internet. It goes under the heading "entertainment" or e-mail. If it is hard to recognise ads on the internet for media researchers the message would even be more difficult for children (Ekström & Sandberg, 2007). Cartoon figures and mascots take advantage of the affection children feel for such characters (Beder, 1998). It could start with a game with a popular cartoon figure that later appears in connection to food marketing (personal communication, Lena Björck, National Food Administration).

**Interactive technology.** Interactive technology is at the forefront of kid culture, allowing companies access right into contemporary kid life and communicate with them in an environment they call their own (Beder, 1998). LAN-activities where adolescents gather to play computer games on-line during weekends are obviously sedentary and often associated with consumption of soft drinks and caffeinated beverages. Individual messages could begin with a contest where either e-mail address or mobile number has to be shown obligatory. Then the company could go on with individual messages after the contest is over (if the consumer agrees).

**Internet**. In the 1990s it was estimated that 4 million children used the Internet world-wide (Beder, 1998). In 2003 over 4 million children, only in the United Kingdom, had regular access to the internet (Branca, Nikogosian & Lobstein, 2007). In 70% of all internet marketing in a Swedish study there were: contests, downloads, entertainment, games, mascots and videos (Ekström & Sandberg, 2007). The ads are integrated with the other content of the internet site which is designed to keep the children busy in play for hours. There are even product "spokes characters" to interact with the children and develop relationships with them so that long lasting brand loyalties can be developed. Preadolescent children do not understand what this kind of personal information is and they look up to fictional characters and tend to do what they ask of them (Beder, 1998), The internet marketing encourages children to disseminate the message to friends. Children are pictured in 40% of all direct marketing regardless of the product according to a Swedish study (Ekström & Sandberg, 2007). On-line catalogues have become a supplement to home catalogues.

**SMS message when the ice-cream van arrives**. On a website it is possible to register for that[16].

**Internet communities**, in 90 % of the cases in a Swedish study of March 2007 which represented 88 websites – two categories food-related websites and websites for children and adolescents - there was neither a food exposition nor food advertising. In 2005 this figure was 50 %. One could conclude that this type of food advertising to children has declined. On 41 websites only seven cases of advertising foods to children was found. Four of these seven cases included advertisements of unhealthy foods directed to children[17].

**Own television-sets.** It has to be mentioned that children have both TV sets and computers in their bedrooms contributing to the "privatisation" of media consumption out of the range of parent supervision. (CFAC, 2007) In Sweden 2005, 66 % of the children between 8 and 12 years old had their own TV in their room (2005) (Ekström & Sandberg, 2007). A majority of all US children has television sets in their bedrooms (APA, 2004).

**Pouring rights contracts.** In the early 1990s the marketing strategy of **"pouring-rights contracts"** increased the availability of soft drink vending machines in schools in the United States. In the year 2000 there were about 200 school districts involved in such agreements. The agreements involve inter alia a lump sum of money to school districts and after that conditional payment tied to sale statistics, advertising of company logos not only on the vending machines but school buildings, sportswear, cups etc. Everybody in the school receives constant exposure to the logos and products. (Nestle, 2002).

**Schools.** There are several forms of marketing in schools: direct advertising in school classrooms (e.g. signs, advertising in television programmes); indirect advertising (e.g. by sponsorship of school materials) and product sales (e.g. soft drinks in vending machines) (Hawkes, 2007). See Annex III for more examples.

**Impact of these marketing tools**

The ads of HFSS on TV, radio, print media, billboards and on the internet lead children and their parent to believe that it is normal to eat these foods – actually treat foods – everyday (OAC, 2007). If HFSS is banned in television ads there will still be a lot of direct or indirect marketing techniques. Old techniques like in store promotions, billboards, buses, metro, neon-lights, and the melody of the ice-cream van combined with new techniques like internet and communities, e-mail, SMS.

A variety of studies have found a substantial relationship between children's viewing of alcohol and tobacco ads and positive attitudes toward consumption of such products. Children find many such commercials attractive (e.g. Joe Camel for cigarettes and the Budweiser frogs for beers) and consequently have high brand awareness of such products and positive attitudes toward them. These products and their spokes-characters have been found to be featured in programming and publications frequently viewed by minors, and reviews of this research conclude that advertising of them contributed to youth smoking and drinking (APA, 2004).

[16] (www.hemglass.se , 2008).

[17] (Sandberg, 2008)

## 6.2 Impact of the production and distribution (packaging, portions and formulation of foods) on childhood obesity

Marketing influences what is normal. Packaged snacks are now normal. Frequent treats are now normal. Take-away foods are now normal. Sweetened drinks are now normal[18].

In the book "*Food politics how the food industry influences nutrition and health*" Marion Nestle, academic nutritionist, claims that advertising, new products and larger portions all contribute to a food environment that promotes eating more and not less[19].

Over-consumption which is not met by increasing physical activity leads to overweight. Continuous over-consumption leads from overweight to obesity.

40 years ago soft drinks were offered to children in small amounts and only at special occasions.

Carbonated beverages are the single biggest source of refined sugars in the American diet (Jacobson, 2005 p. 3). Soft drinks are the single largest source of calories in the United States, especially among teenagers[20].

In their report of 2003, the WHO judged there is probable evidence that heavy marketing of energy-dense foods as well as high intake of sugars-sweetened soft drinks and fruit juices promote weight gain and obesity. In addition they claimed there is convincing evidence that sedentary lifestyles and high intake of energy-dense micro-nutrient poor foods promote overweight and obesity.

The link between soft drink consumption and body weight is so strong that researchers have calculated that the risk of obesity increases 1,6 times for each additional soft drink consumed (Nestle, 2007 with reference to Ludwig, Peterson and Gortmakers paper "*Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis"* (in Lancet 2001).

## 6.3 Case studies on packaging, portions and distribution

The following examples deal mainly with soft drinks and their packaging, portions and distribution:

- Growing standard sizes;
- Evolving extremes;
- Sizes and prices;
- Menus at the cinema.

The last two examples in this section deal mainly with sweets and potato crisps (chips) and packaging, portion and distribution:

- Pick and mix – bigger and bigger paper bags, forty shelf metres of sweets;
- Potato crisps (chips) no longer only a party product.

[18] (CFAC 2007)
[19] (Nestle, 2002)
[20] (Jacobson, 2005)

## 1. Growing standard sizes

Especially for soft drinks the standard servings have become larger and larger. Inevitable, the larger the portion becomes the more calories. In the 1950s Coca-Cola's 6 ½-ounce bottle (0,195 litre) was the standard serving. This has now been exchanged by the 20-ounce or 0,6 litre bottles (Jacobson, 2005). From the standard size in the 1950s to the frequently exposed 20-ounce can, the calorie content in the standard serving has increased three times.

**Table 8 - Growing sizes of the standard serving of soft drinks**

| Decade | 1950s | 1960s | 1990s | 2000s |
|---|---|---|---|---|
| Volume (ounces) | 6 ½ | 12 | 20 | 24 |
| Volume (litre) | 0,195 | 0,36 | 0,6 | 0,72 |
| Approximate energy content (kcal) | 70 | 130 | 216 | 260 |

Source: Jacobson, 2005 and author's calculations on decilitre-volume and energy content. 1 ounce (American) = 0,030 litre (Longmans dictionary, 2003). Energy content used in calculations per 100 g soft drink 36 kcal (www.slv.se/ldb ). The calorie contents are approximate as ice put into the drinks would lower the energy content. The energy content could actually have been higher depending on the type of soft drink used and the sugar amount therein.

In the mid 1990s the reported daily consumption of carbonated soft drinks with sugar was 12 fluid ounces which corresponds to 0,36 litre/day. 20-29 year old men and women had the highest average consumption corresponding to 0,9 and 0,48 litre (Nestle, 2002 and author's calculations).

On Iceland 15-19 year old boys drink 1 litre soft drinks a day. Girls in the same age drink half a litre (Ekström & Sandberg, 2007). The marketing is also targeted to children and adolescents.

In the United States**,** 20 % of the toddlers (1-2 years old) consume soft drinks, in average 7 ounces a day which corresponds to 0,21 litre/day (Jacobson, 2005 and author's calculations).

Changing from glass bottles to aluminium cans and plastic bottles has facilitated the distribution. A four times 1,5 litre Cola bottle is sold as a weekend pack in Swedish supermarkets (January 2008). A manufacturer of mineral water has responded by selling the same amount of mineral water as weekend pack.

## 2. Evolving extremes

Besides the development of larger standard serving sizes extremely large serving sizes (about 1- 2 litre) of soft drinks available in cups have evolved since the 1980s. The (take-away) shop/restaurant 7-Eleven provides a 1,5-litre mug "for extreme soft drink sipping". It has a lid and keeps the drink cold up to six hours. With this concept the beverage does not necessarily has to be consumed at once although the name is "gulp" (which means swallow quickly). In Sweden, plastic 0,5 litre-bottles with soft drinks are offered as drinks in 7-Eleven meals. Other types of drinks could be chosen.

**Table 9 – Extreme sizes and calorie**

| Product | Big Gulp™ | Super Big Gulp | X-treme Gulp™ Mug | Giant Double Gulp |
|---|---|---|---|---|
| Volume (fluid ounces) | 32 | 44 | 52 | 64 |
| Volume (approx. Litre) | 0,96 | 1,32 | 1,56 | 1,9 |
| Approximate energy content (kcal) | 346 | 475 | 562 | 684 |
| Introduction | 1980 | | | 1988 |
| Source | a | b | b | a |

Source: a) Wikipedia http://en.wikipedia.org/wiki/Double_gulp, b) http://www.7-eleven.com/products and author's calculations on decilitre-volume and energy content. The calorie contents are approximate as ice put into the drinks would lower the energy content. The energy content could actually have been higher depending on the type of soft drink used and the sugar amount therein.

## 3. Sizes and prices

**Refill**. In order to attract customers, it has become possible to refill cups of beverages for free. E.g. in Sweden, Ikea offers a 0,3 litre portion of beverages including soft drinks for 7 Swedish Crowns (about 73 Euro cents) which can be refilled for no extra charge (author, 2008).

A Giant Double Gulp (64 ounces or 1,9 litre) in Seven-Eleven costs about 1,69 USD. Bringing the cup back and refilling it cup costs 99 cents (Wikipedia, 2007).

**The pricing practices** encourage people to choose large servings. Half a litre of a "small" soft drink at McDonalds cost about 1,05 USD and the double amount "large" soft drink 1,57 USD (Jacobson, 2005 p 3). The difference is only 50 % more and corresponds to 35 cents in European monetary units (Jacobson, 2005).

By 2001, companies routinely placed 20 ounce (0.6 litre) plastic bottles with a screw-top (Nestle, 2002,) in the widely distributed soft drink vending machines. The cost for each bottle was around 1-1,5 USD, just slightly more than the 12 ounce-can (0.36 litre). Obviously this reality encourages a large consumption and sipping.

**Table 10 - Different sizes of soft drink cans and their price**

| Volume (fluid ounces) | 12 | 16 | 20 | 32 |
|---|---|---|---|---|
| Volume (litre) | 0,36 | 0,48 | 0,6 | 0,96 |
| Price US dollar | 0,99 | 1,05 | 1-1,5 | 1,57 |
| Approximate energy content (kcal) | 130 | 173 | 216 | 346 |
| Source | b | a | b | a |

Source: a Jacobson 2005, b Marion Nestle p 203 Calorie content calculated by the author from the figure of 36 kcal/100 gram. The calorie contents are approximate as ice put into the drinks would lower the energy content. The energy content could actually have been higher depending on the type of soft drink used and the sugar amount therein.

A 100-gram chocolate bar costs 11,50 Swedish Crown (about 1,2 EUR). The double amount of the same brand costs 15,50 Swedish Crowns (about 1,6 EUR). To get the double amount you only have to pay 4 Crowns (less than half a EUR; 42 cents) extra. (author, 2008).

Not only for soft drinks and chocolate the relative price differences discourage the choice of smaller portions. This is also the case for e.g. French fries and fill of ice-cream cones (Nestle, 2002).

**4. Menus at the cinema**

Specific menus, including different sizes of soft drinks and pop corn, available at cinemas have been formulated as well as tempting names e.g. The Hollywood Menu and Klassiker (personal communication Colléen). There is also a menu called Blockbuster at Swedish cinemas (personal communication, Lagestrand). Such menus also occur in e.g. the United States and would inter alia include ice cream and unlimited soft drinks (internet source, 2008). Confectionary is sometimes included in the menus or could be bought extra.

In Sweden the size of soft drinks included in the popular pop corn menus at the cinema has increased from 0,8 litre (which is already high) to 1,3 litre (Konsumentnytt, 2006). The latter amount of soft drink alone contributes to approximate 468 calories (author's calculation).

At a big Swedish cinema chain (personal communication Colléen) the soft drink volumes offered are from 0,3 litre up to 1,2 litre. The two middle sizes are 0,5 and 0,8 litre.

Bacon snacks are sold in a small portion (1,9 litre) and a big portion (3,7 litre). Pop corn is sold in three different portions: 1,3 litre, 2,6 litre and 5,2 litre. As a comparison a pack of 100 g microwave-popcorn gives about 2,2 litres.

**5. Pick and mix – bigger and bigger paper bags, forty shelf metres of sweets**

Sweets are not only distributed in pre-packaged forms. In Sweden they are also widely distributed unpackaged and the consumers from toddlers and onwards can pick and mix the sweets in a paper bag.

The size of a "normal" paper bag for sweets has increased. The most common one in Sweden measures 26 x 18 cm and has a flat bottom of 18 x 11 cm. It has room for approximately 1 kilo sweets (giving approximately 4000 calories). About ten years ago the paper bags were much smaller (17,5 x 12,5 cm) and had no flat bottom with room for appreciatively 0,25 kilo which gives approximate 1000 calories. The market for unpackaged sweets have proliferated and the shelf with "pick and mix-sweets" at big super markets could measure ten metres. In addition, the sweets are usually presented on four levels with 35 chambers/boxes of sweets, which actually mean 40 shelf-metres of about 140 different sweets. These shelves are very often allocated about ten metres from the checkout (cash desks), to enable (impulse) buying sweets after a tiresome shopping round. In big food super markets as well as some tool super markets in Sweden there are one or two shelf metres of packaged sweets, tablets, chocolate and chewing gums at every checkout cash desk (author, 2008)

Due to a campaign "Chuck the sweets out of the checkout" carried out by consumer organizations many shop chains have withdrawn the sweets and chocolate from the checkout in the United Kingdom (Ungerth, 2006). As a response to consumer requests some German supermarkets have introduced checkouts without sweets *Süsswarenfreie Kasse*.(Internet links, 2008).

Small children get used to pick and mix their own sweets in the big paper bags as a Saturday treat. Older children who have their own pocket money not only eat sweets on Saturdays. Around 50 % of children aged 7 – 12 years buy candy for their pocket money (Nestle, 2002).

## 6. Potato crips (chips) no longer only a party product

The first potato crisps were invented in 1853. The waxed bag, invented 1926, enabled considerably longer durability and a suitable distribution form for mass production. Potato crisps were introduced in Sweden in 1957 by Estrella (Kraft Foods Nordic, 2007). Other companies followed and one of them celebrated their 40 years-anniversary with the slogan "*Älska det goda 40 år*" (Love the good 40 years). Already in the 1960s Estrella understood the importance of marketing. They used famous people in cinema commercials with the message "*Ett lätt sätt att umgås*" (an easy way to be together). The marketing was not directed to children and there were no TV-commercials what so ever allowed in Sweden at that time.

In the 1980s crisps were no longer seen solely as a party product but also a Saturday treat for children. Small children got the smaller bags (around 40 g) and ten years old children even a 100 or even a 200 g-bag each. Consuming 200 grams potato crisps (940 kcal) every Saturday in ten years corresponds to a huge amount of calories (nearly half a million calories). Some of the thin ten year old children in the 1980s who got this Saturday treat ten years later have become overweight young adults. There are even bigger packages available now and the 300 g-bag seems to be the most common.

### Reflections

The examples above refer to a number of foodstuffs: soft drinks, chocolate, French fries, ice-cream, popcorn, salty snacks, sweets and potato crisps.

Small children do not find these foods by themselves. Therefore parents, grandparents, other relatives, kindergarten personnel should make efforts to postpone the introduction of HFSS products. As children grow up and have their own pocket money they have the power of choosing sweets and soft drinks every day. See Appendix IV for stages of ages. If the marketing is restricted and the availability is not as exposed it will be easier for parents and others to postpone the introduction and possibly to change the attitudes in the young as well.

# 7 Final recommendations and conclusions

## 7.1 Conclusions

This briefing paper has dealt with marketing to children and childhood obesity. The information from comprehensive reports, scientific papers etc leads to the following conclusions.

1. The obesity pandemic is alarming. Obesity has been described as a normal response to an abnormal environment and the term obesogenic environment is often used.
2. There is a connection between heavy marketing of energy-dense foods and fast food outlets and an increased risk for weight gain and obesity. Several reviews have shown evidence of the impact of food marketing to children on awareness, influence on food preferences, attitudes, purchase requests and consumption.
3. Homes, schools and the entire environment are important when it comes to curing the obesogenic environment. A number of good practices are shown in a one-page table.
4. As television and other audiovisual media are very effective, legislation, self-regulation and co-regulation also have to be very effective.
5. TV is the easiest way for marketers to reach a large number of children. TV gives marketers access to children at much earlier ages than print media. Internet and mobile telephones have given marketers even more access to the private sphere of children.
6. Many, many generations have grown up without TV. For the generations that grew up in the early days of TV, without any TV commercials, it is obvious that children's programs and the time between those programs shall be free from television advertising and teleshopping.
7. Marketing consists of a great number of techniques. From sponsored children's hospitals, children's own rooms and in society – marketing is actually everywhere and its purpose is to meet consumer needs profitably, to trigger and encourage purchase. Different marketing techniques and examples are shown in a big grid in Annex III.
8. Consumers and the entire society have to raise their awareness. Knowledge of the impact of marketing and healthy alternatives are needed to defend people against the calories that too often are offered in unhealthy foods.
9. No manufacturer of chocolate crisps or sweet obliges consumers to eat a whole chocolate bar, a 300 g-bag of crisps or even a full paper bag (1 kilo) of pick and mix sweets weekly or daily. The choice is the consumer's. However, some formulations and offers, e.g. fast food meals with soft drinks, indicate that a portion is offered.
10. The concept of what is normal has to change.
11. Fast food chains are no altruistic youth centres that are obliged to offer adolescents water and bread for free, all hours a day. Their purpose is to offer fast foods to consumers who are ready to pay. These companies' activities to improve the foods offered, to healthy alternatives, are of utmost importance for the future.

## 7.2 Recommendations for possible actions

- Reduce the **confectionary exposure in checkout counters**.
- **Schools need to be fully funded**, so they do not have to raise funds for school programs, which renders them vulnerable to pressure from commercial interests (Branca, Nikogosian and Lobstein, 2007). **No vending machines** should be allowed in schools with foods of low nutrition value such as soft drinks.
- The possibilities in the **unfair commercial practices** (UCP) directive have to be applied consequently (including control and enforcement). The strength of the UCP, inter alia the list of aggressive marketing techniques, shall be utilized and bad practices enforced by responsible control authorities. There has to be sanctions.
- **Strengthen the television directive (TVWFD)** by not allowing any marketing of HFSS in children's programs. In the light of the huge obesity problem, why not explore the rules in Quebec on television advertising (see annex I, table 3) or the restrictions made for audiovisual commercial communications for cigarettes, tobacco and alcoholic beverages in the common position of the television directive? See Table below.

**Table 11 - Possible translation of restrictions for cigarette, tobacco and alcohol to food sector**

The left column includes the wording in article 3 e (1 d-e); the right column is an attempt to translate these wordings to the area of foods.

| **Restrictive rules in TVWFD, common position regarding cigarettes, tobacco and alcohol** | **Possible wordings if the restrictive rules on cigarettes, tobacco and alcohol should apply for foods directed to children** |
|---|---|
| **Cigarettes and tobacco** | **All foods (including beverages) or Unhealthy foods directed to children** |
| (d) all forms of audiovisual commercial communications for cigarettes and other tobacco products shall be prohibited; | All forms of audiovisual commercial communications for foods and beverages directed to children shall be prohibited;<br>All forms of audiovisual commercial communications for HFSS[1], directed to children shall be prohibited. |
| **Alcohol** | **Sugary beverages directed to children** |
| (e) audiovisual commercial communications for alcoholic beverages shall not be aimed specifically at minors and shall not encourage immoderate consumption of such<br>beverages; | Audiovisual commercial communications for sugary beverages shall not be aimed specifically at minors and shall not encourage immoderate consumption of such beverages; |

Source: Left column Common position (EC) No 18/2007 adopted by the Council on 15 October 2007 Official Journal of the European Communities C 307E, 18.12.2007. p 13. Right column author's suggestion. [1]*foods and beverages containing nutrients and substances with a nutritional or physiological effect, in particular those such as fat, trans-fatty acids, salt/sodium and sugars, excessive intakes of which in the overall diet are not recommended*

**Attitudes** have to change. For many HFSS there is no indication that a whole package is one portion. The choice is the consumer's. and the introduction of HFSS has to be postponed in early childhood. There are many HFSS offered as "portions" and to the author's opinion it is misleading to call 0,48 litre of soft drink a small portion.

The awareness of the calorie content in beverages haves to be increased. To attract consumers, a proposal could be "why not changing from a refill for free to tell customers that the fresh tap water is free of charge". Other actions could be to:

- Improve the quality of foods and beverages served in schools.
- Combine healthy eating habits with biology education e.g. by improving children's knowledge of fish, fruit and vegetables with "**passport-sized" booklets or checklists** where they can get a "tic", stamp or signature for each the new fish, fruit or vegetable they have tried. (author's suggestion) This could appeal to children's wish to collect things.
- Strengthen the research on childhood obesity including food intake among children and adolescents. According to the American Psychological Association (APA, 2004) perplexingly little research has been carried out concerning schools and commercialism. Encourage long term research, including gender perspective, in this field (author's suggestion).

As marketing is global, worldwide activities on restricting marketing that would endanger children's health should be explored. A WHO technical meeting 2006 called for an international code on promotion of fruits and beverages to children[21]. An example that worldwide activities are possible is the International Code of Marketing of Breast-milk Substitutes (World Health Organization, 1981). An example that worldwide activities are possible is the International Code of Marketing of Breast-milk Substitutes (World Health Organization, 1981). To quote The European Charter on counteracting obesity:

*"**International action is essential to support national policies.** Obesity is no longer a syndrome of wealthy societies; it is becoming just as dominant in developing countries and countries with economies in transition, particularly in the context of globalization. Taking inter-sectoral action remains a challenge, and no country has yet effectively managed to bring the epidemic under control. Establishing strong internationally coordinated action to counteract obesity is both a challenge and an opportunity, as many key measures are cross-border both in character and in their implications".*

The European Charter on counteracting obesity has presented inter alia a **package of essential preventive actions.** Among many other suggestions the package of essential action includes: reduction of marketing pressure, particularly to children; promotion of breastfeeding; ensuring access to and availability of healthier food; promotion of cycling and walking by better urban design and transport policies (World Health Organization Europe, 2006).

- Research in these fields has to be strengthened and efficiently co-ordinated as to facilitate comparisons and statistics from different countries

[21] (Branca, Nikogosian & Lobstein, 2007).

# 8 Acknowledgements and suggestions for further reading

I would like to acknowledge the following concrete and concise documents from Australia, Canada, New Zealand, United Kingdom, the United States and the WHO Regional Office for Europe. Although mentioned in the reference list, valuable contributions are:

- Children's health or corporate wealth? The case for banning television food advertising to children. A briefing paper by the Coalition on Food Advertising to Children (CFAC) in Australia. 2nd edition. January 2007. Retrieved from the internet. www.chdf.org.au/i-cms_file?page=664/CFAC_BriefingPaper_Jan07.pdf
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# 10 Appendices

## 10.1 Additional facts

Table 1 – impact of obesity on health
Table 2 – the key elements of unfair commercial practices directive
Table 3 - Quebec Consumer Protection Act on advertising to children under 13 years of age

## 10.2 Statistics on overweight and obesity in European boys and girls

## 10.3 Big grid with different marketing techniques and explanations

## 10.4 Stages of ages

## Appendix I – Additional facts

### Table 1. Impact of obesity on health

1. Cardiovascular disease
2. Cancer
3. Type-2 Diabetes
4. Kidney disease
5. Fatty liver disease
6. Osteoarthritis
7. Pulmonary embolism
8. Deep vein thrombosis
9. Polycystic ovary syndrome
10. Hyperuricaemia and gout
11. Gallstones
12. Reproductive disorders
13. Low back pain
14. Breathlessness
15. Sleep apnoea
16. Psychological and social problems (e.g. low self esteem)
17. Complications in pregnancy
18. Complications in surgery

Branca F, Nikogosian H and Lobstein T, eds. *The challenge of obesity in the WHO European Region and the strategies for response*. Copenhagen. WHO Regional Office for Europe, 2007.

### Table 2. The Key elements of directive 2005/29/EC applying from 12 December 2007

1. A general clause defining practices which are unfair and therefore prohibited.
2. Misleading practices and aggressive practices are defined in detail.
3. Provisions aiming at preventing exploitation of vulnerable consumers.
4. Black list of practices which are banned in all circumstances.

Source: Retrieved from the internet Brussels, 12 December 2007. IP/07/1915

### Table 3. Quebec Consumer Protection Act on advertising to children under 13 years of age

*The Act, which came into force in April 1980, states:*

*248. Subject to what is provided in the regulations, no person may make use of commercial advertising directed at persons under thirteen years of age.*

*249. To determine whether or not an advertisement is directed at persons under thirteen years of age, account must be taken of the context of its presentation, and in particular of*

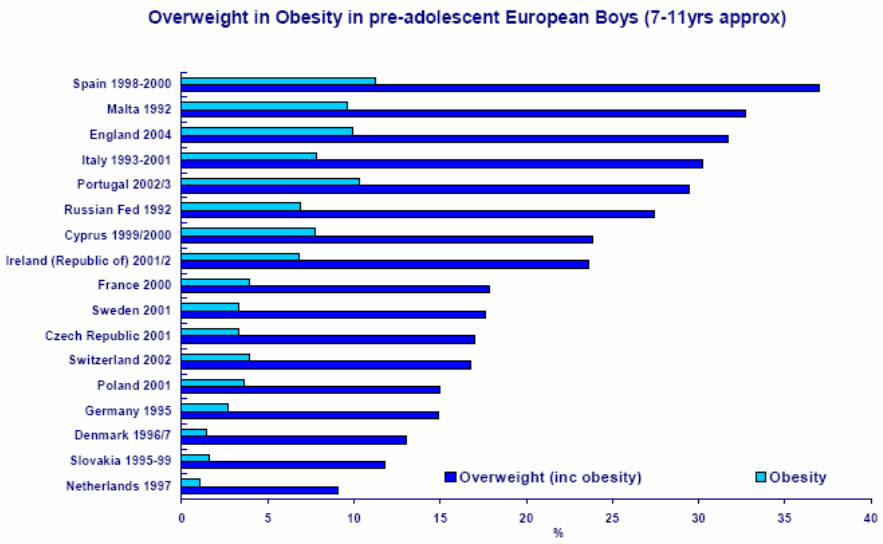
*(a) the nature and intended purpose of the goods advertised;*
*(b) the manner of presenting such advertisement;*
*(c) the time and place it is shown*

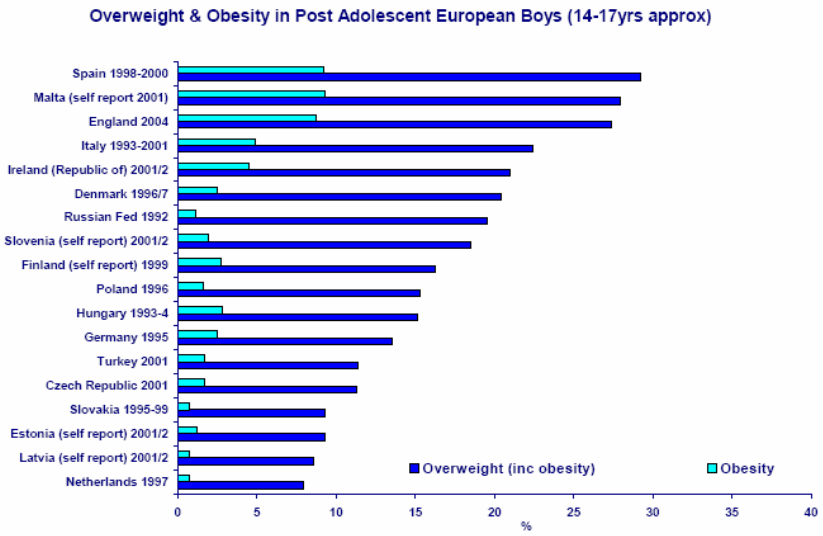
Source: Jeffery, B. Commercializing Kids, October 11, 2006.

## Appendix II -Statistics on overweight and Obesity in European Boys and Girls

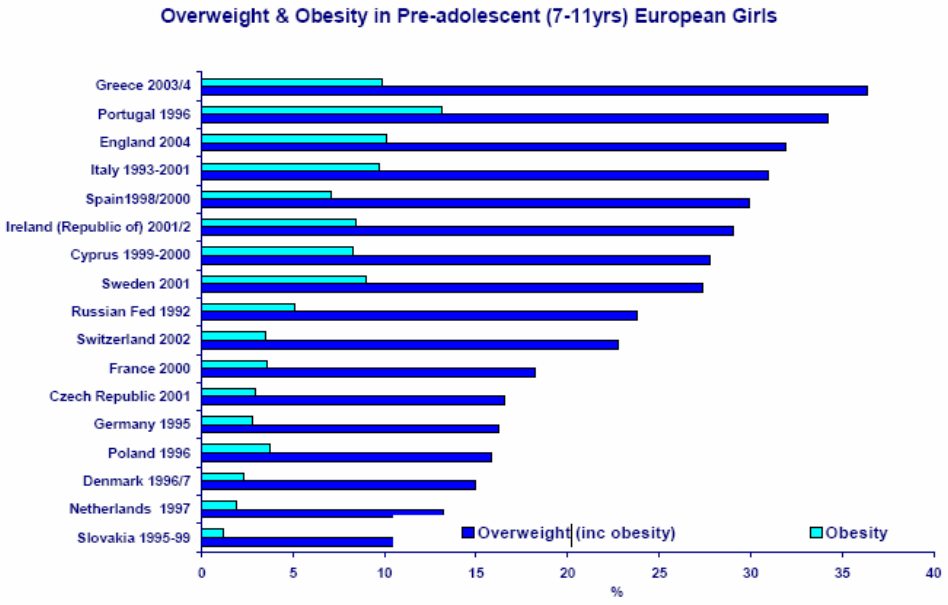
The International Association for the Study of Obesity (IASO) has published statistics on overweight and obesity on the website http://www.iotf.org/database/index.asp
Statistics on the following are shown on the next spread:
Overweight and Obesity in pre-adolescent European Boys (7-11 yrs approx)
Overweight and Obesity in Post Adolescent European Boys (14-17 yrs approx)
Overweight and Obesity in pre-adolescent European Girls (7-11 yrs approx)
Overweight and Obesity in Post Adolescent European Girls (14-17 yrs approx)

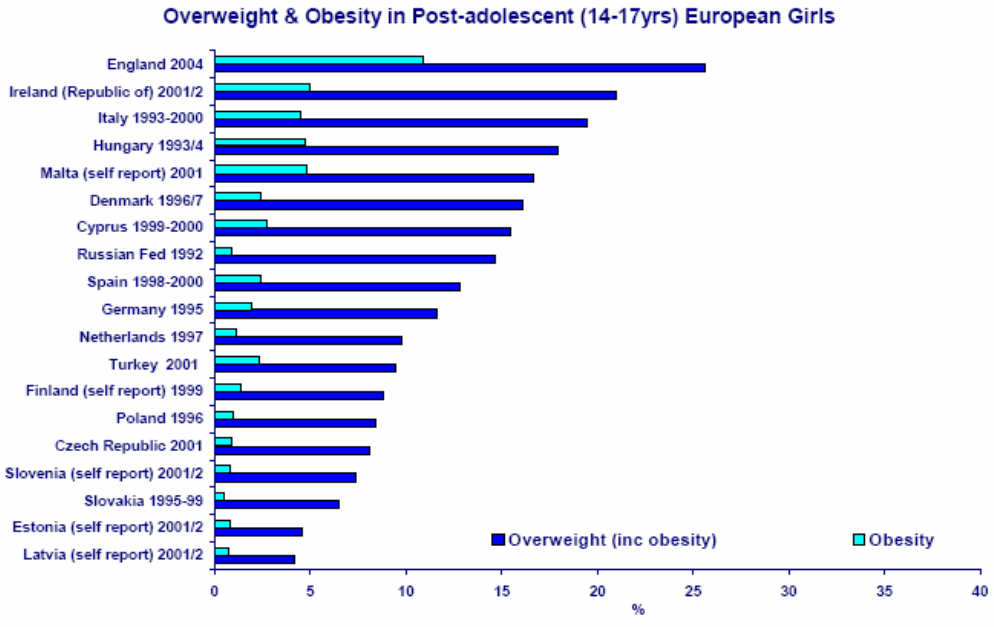
## Statistics on overweight/obesity in European Boys



## Statistics on overweight/obesity in European Girls




Source: http://www.iotf.org/database/index.asp

## Appendix III – Big grid on different types of marketing: in school, outside schools, direct or indirect, audiovisual or not

| **Type of marketing** | **Examples** | | | | | |
|---|---|---|---|---|---|---|
| Sales promotion (1) | Prices (2) and various attractive offers | Toys, clothing and other items with logos (2) | In-store sales promotion | Discount cards, coupons (2) Gifts (4) | Telephone cards (2) | Celebrity endorsement of products (2) |
| In school marketing (1) | Soft drink "pouring rights" agreement (3) | Logos on vending machines, supplies and sport facilities (3) | Ads and logos on sports uniforms (3) | Free samples (3) | Hallway advertising (3) | Advertisements on free book covers (3) |
| | Advertisements on school buses (3) | Contests (3) | Scoreboards (3) | Coupons for fast food (3) | Free school-meals with certain brands | Celebrities and licensed characters visiting schools (6) rock, sport |
| Sponsorship (1,7) | Soft drink "pouring rights" agreement (3) | Club and activity sponsorship (3) | Event sponsorship UEFA football cup (4) | "This programme was sponsored by" | Children's hospitals sponsored | Sport events and rink ads |
| Product placement (1,7) | In movies (2) and audio-visual works made for television (7) | Clothes from Marlboro Classics and shoes from Camel boots (5) | Toys related to movie figures in Happy Meal (4) | Ice cream clown indicating where to buy ice cream (4) | T-shirt Jag älskar glass (I love ice cream) (10) | Product placements in teaching materials (3) |
| Super market and other placements (2) | Pick and mix sweets near checkout counter (4) | Buses, Metro, Neon-lights, road signs (4) and other outdoor ads | Petrol stations (e.g. sign on pump "Buy two for 30 crowns" 4) | Fast-food chain tie-ins (2) | Fairy tales on paper bags for pick and mix sweets (4) | Contest on paper bags for pick and mix sweets (4) |
| TV-advertising (1, 2,7) Radio-advertising Cinema | Channel One (required television watching with commercials (3) | Mascots e.g. Joe Camel (tobacco) and the Budweiser frogs (beer) (8) | On-demand audiovisual media services (7), videos | Text-TV (11) | Indirect in programs about food, recipes | Host selling (6) |
| Internet (1,2) | Internet interactive computer games (2) | Clubs (4) "communities" | Other interactive technology blogs, chat | Banners are the most common form so far (11) | On-line catalogues (11) | Sponsored search links (11) |
| Press advertising (11) | Magazine advertising (2) | Children's magazines(9) | Comic papers (9) | Gratis papers (11) | Advertising appendix to e.g. morning paper (11) | |
| Other advertising | Tele-shopping (7) | Tele-marketing | E-mail newsletter (4) | Contests on labels (4) | SMS e.g. ringtones (4) | Individual messages (12) |

Green parts: In school marketing examples. Source: Author's compilation from various sources

1. One of six marketing techniques (WHO 2004, Hawkes);

2. Examples of methods used by soft drink companies to market products *outside* schools (Nestle, 2002:187);

3. Examples of methods used by soft drink companies to market products *inside* schools (Nestle, 2002:187, 191) a specific brand of chocolate bar appearing on every page of a sponsored mathematics educational materials (Team SNICKERS logo on every page);

4. Author's examples most of them collected December-January 2008:

Contest on labels, reference to web site: Win Christmas gift money for 15 000 Swedish crowns (on Christmas soft drink label). At the same time the consumer was asked to vote for which of the three new types of this soft drink was the best one. One interesting thing is that the Santa Claus seems to have normal weight on these labels.
Contest on paper bags for pick and mix sweets: "*Tävla med Shrek! Vinn ryggsäck med godis och Shrek den tredje-DVD 200 vinnare! Tävla på karamellkungen.se*" (this includes a contest, the price is a rucksack full of candy and a DVD with "Shrek the third" which came as a DVD on 19 December 2007, reference is given to the web sit for the Candy king (Karamellkungen).
Event sponsorship: McDonalds is sponsoring the UEFA football Euro 2008 (shown on soft drink cups).
Children's mini-maraton contest in Stockholm spring 2006 one of the items children got was a stewed fruit *product and a wrist rubber band saying: I hate fruit but love Fruitini* (Ekström & Sandberg, 2007)
Games: Puzzle on an ice-cream website (www.gb.se)
Gifts: Free balloons in different colours with logo, free bibs (it says "Little nibbler" on them);
In store sales promotion: Package with crisps, soft drink and video film to rent
Inserts or toys included in foods sold are not a new phenomenon.
Inserts or Toys included in fast food meals. The theme of one big chain in the first part of January was to include toys from Bee Movie. A big round sign was on the entrance door, on a position that a 2-year old child could see it both when entering and when leaving, showing the different toys that could be collected. The Bee toys were replaced by games later in January 2008.
Leaflet with promotions on club, free meal and e-mail on Newsletter: On leaflets at McDonalds, text translated from Swedish, "To all parents: McMail. Would you like to be the first one to know what is happening at McDonalds and get promotions directly to your computer? Then McMail is something for you. Send the e-mail address at the same time as you notify your child to the Ronald McDonald Club: www.ronaldmcdonaldklubb.se On the other side of the flyer the text is directed to children: For all children Ronald McDonald Club and the text "Ett gratis Happy Meal när du fyller år" (a free happy meal at your birthday).
Mobile Ring tone to all who participate in chocolate contest
Pick and mix sweets: Fairy tales on paper bags for pick and mix sweets (Karamellkungen);
SMS. You could register to be reminded when the ice cream van arrives.
Road signs: 500 different kinds of candy; easily recognized signs just when you have embarked a train on railway station platforms where to find the nearest hamburger restaurant

5. LUNS, 1997. Lärande och undervisning i den nya skolan. Ett IT-upplägg för samhällskunskapens arbetsområde. Droger. http://vargardsskolan.kinda.se/luns/droger.htm

6. Beder, 1998;

7. These terms are explained in the TVWFD. 2007;

8. APA, 2004;

9. Advertisement for e.g. Kinder Surprise combined with a contest (win a weekend worth 20 000 SEK) found on the website www.magic-kinder.com was found in three Swedish comic papers for children (Sandberg, 2008);

10. www.gb.se T-shirt I love ice-cream introduced 2001. Ice cream clown. The ice cream clown was first a type of ice cream (10) but has been a sign for indicating where to buy ice-cream for decades;

11. Institutet för reklam- och mediestatistik (IRM) www.irm-media.se ;

12. DG SANCO, 2006: Mouth to mouth messages;

13. Björck L. personal communication: One of 3 Kinder ägg guarantees the content of a Shrek figure. Free sweets after sport events organized by parents. Household goods with brands e.g. Hemglass on water jar.

## Appendix IV - Stages of ages

**Childhood** begins at birth and ends at the age of 18 years.

Jean Piaget (1896 – 1980) Swiss researcher in developmental psychology launched the theory of cognitive development categorising children into different stages of development.

**Stages of cognitive and social development (Piaget´s theory of logical development)**

| | |
|---|---|
| 0 – 2 years | The sensori-motor stage |
| 2 – 6 years | Preoperational stage |
| 7 – 11 years | Concrete operational stage |
| 11 – adulthood | Formal operations stage (abstract thinking) |

A grid with concrete examples from birth to eighteen years, compiled by the author, is found on the next spread.

## Infancy to 4 year old-children

| | | |
|---|---|---|
| **Infancy**<br>**0-12 months** | • Breastfeeding protective against later childhood and adolescent overweight<br>• Parents select their weaning foods from about 6 months | • Breastfeeding protection is small but significant<br>• Infants do not find soft drinks etc by themselves |
| **1 year old-children** | • Accompanying parents<br>• Observing<br>• Food and drink – new experience | • Small children are taken with their parents to supermarkets and stores<br>• Exposure to all sorts of foods |
| **2 year old-children** | • Accompanying parents<br>• Observing<br>• Requesting e.g. increased vocabulary<br>• Learn how to persuade, get parents respond, ”pester power” | • Exposure to all sorts of foods in stores<br>• Children begin to ask for things they see<br>• Link to television advertising and store contents |
| **3 year old-children** | • Accompanying parents<br>• Selecting with permission<br>• Requesting | • Able to come down from the shopping trolley and make their own choices e.g. pick and mix-sweets<br>• Recognise brands and status items<br>• Locate goods in the store |
| **4 year old-children** | • Accompanying parents<br>• Making independent purchases<br>• Using the internet e.g. clubs<br>• In a Swedish survey there was no 4-year old child that never ate sweets (Ekström & Sandberg, 2007) | • Learn to pay at the check-out counter<br>• Loyalties and consumer habits formed and will be carried through to adulthood<br>• Ads seen as fun |

## 4 year old-children to 18 years

| | | |
|---|---|---|
| **5 year old-children** | • Go to the store alone<br>• Making independent purchases | • A lot of TV-watching between ages 5-15 gave more overweight ten years later than less TV-watching group<br>• The older – the more TV they watch |
| **6-7 year old-children** | • Go to preparatory school or school<br>• Below 7-8 years unable to attribute persuasive intent to advertising (APA) | • Group pressure<br>• Possible commercial exposure<br>• Believe ads provide information |
| **8-year old-children** | • Make most of their own buying decisions | • 66 % of Swedish 8-12 year old children and a majority of US children have an own TV in their room<br>• Cannot distinguish between information and intent to persuade |
| **Older children** | • Make most of their own buying decisions<br>• Using internet more and more<br>• Buy food from vending machines, snack bars, convenience stores, restaurants and grocery stores much more often than parents think they do (ADA, 2003) | • Can understand motives and aims but most unable to explain sales techniques<br>• More able to differentiate between commercials and TV-programmes, but<br>• also an easy prey for advertisers |
| **Puberty** | • Make most of their own buying decisions<br>• Extra work and own income e.g. in hamburger store<br>• Moped age – less physical activity | • More pocket money<br>• Group pressure to conform to group standards<br>• Want to belong to their peer group<br>• Advertisers define normality |
| **Minor (below 18)** | Military conscription tests around 18. Swedish data from that show that morbid obesity increased faster than moderate obesity the last 35 years. At 17-20 years the obesogenic environment appears to exert its toll (Neovius, Teixeira-Pinto & Rasmussen, 2007) | Protection of minors outspelled in TVWFD |

Source: author's compilation from various sources