

Monitoring Food Marketing to Children in Turkey 2018



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Abstract

The Vienna Declaration on Nutrition and Noncommunicable Diseases, the WHO European Food and Nutrition Action Plan and the WHO report of the Commission on Ending Childhood Obesity all recommend that countries enact a series of comprehensive programmes to promote the intake of healthy foods and reduce the intake of foods and non-alcoholic beverages high in saturated fat, salt and/or free sugars (HFSS foods). One of the recommended measures is to introduce policies that effectively restrict the marketing of HFSS foods to children. This report shows that food was the most heavily advertised product category on television (TV) in Turkey, accounting for 32.1% of total advertisements, and most food advertisements on TV and online are for energy-dense, HFSS foods, or restaurant advertisements that do not comply with the WHO nutrient profile model (NPM). Only 21.2% the products advertised on TV and 25.6% of those advertised online represent core-food nutrient items. Marketing on TV during peak viewing times explicitly targets children, and promotes HFSS foods not complying with the NPM (78.8%). The foods most often advertised on TV were chocolate and edible ices. The foods most often promoted on company websites were: chocolate (25.6%); cakes, sweet biscuits and pastries (13.7%); and non-alcoholic beverages (14.5%).

Keywords

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Food Industry

Food Preferences

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Marketing

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Abbreviations

apps	Applications
CHO	Carbohydrates
COSI	Childhood Obesity Surveillance Initiative
EU	European Union
HFSS foods	Foods and non-alcoholic beverages high in saturated fat, salt and/or free sugars
IFBA	International Food and Beverage Alliance
INFORMAS	International Network for Food and Obesity/Non-communicable Diseases Research, Monitoring and Action Support
NPM	Nutrient profile model (of the WHO Regional Office for Europe)
SD	Standard Deviation
TURKSTAT	Turkish Statistical Institute
TV	Television
vloggers	Video bloggers

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Executive summary

The Vienna Declaration on Nutrition and Noncommunicable Diseases, the WHO European Food and Nutrition Action Plan, the Action Plan for the Prevention and Control of Noncommunicable Diseases and the WHO Commissions on Ending Childhood Obesity and on Noncommunicable Diseases (WHO Regional Office for Europe, 2013b, 2014; WHO, 2016) all recommend that countries enact comprehensive programmes to promote the intake of healthy foods and reduce the intake of foods and non-alcoholic beverages high in saturated fat, salt and/or free sugars (HFSS foods). They give particular priority to good nutrition for children and adolescents. A key recommendation is the full implementation of the WHO (2010) *Set of recommendations on the marketing of foods and non-alcoholic beverages to children*, reflecting the unequivocal evidence that the marketing of HFSS foods influences eating behaviour and childhood obesity. Food marketing to children on both television and the Internet has been consistently found to affect children's knowledge and perceptions of food and to influence their preferences for and consumption of foods. Food marketing frequently promotes so-called "non-core" and HFSS foods. These foods do not form part of a healthy diet and would not typically be permitted by a nutrient profile model such as that of the WHO Regional Office for Europe (2015). In addition, adolescents interact with the mass media more often than before, engaging via social media in liking and sharing commercial communications; this results in additional peer-to-peer dissemination via friendship networks.

WHO explicitly called on Member States to introduce comprehensive restrictions on the marketing of HFSS foods to children through all media, including digital, and progressively to close any regulatory loopholes. An external evaluation of the Healthy Nutrition and Active Lifestyle Programme in Turkey by the WHO Regional Office for Europe (2016) recommended the adoption of a nutrient profile model and the extension of existing marketing restrictions to cover all media, broadcast and non-broadcast. In addition, the evaluation recommended that a monitoring system be developed to ensure compliance with the objectives set out in the national policy.

Most studies monitoring food marketing to children have come from English-speaking countries, such as Australia, the United Kingdom and the United States of America. More data are urgently needed from other WHO Member States to support the domestic policy-making process and to build a more representative global picture of food marketing. This timely study, monitoring food marketing to children in Turkey, makes an important contribution to the international literature. The study took place in March–September 2017. For digital marketing, the study examined the websites of 20 food companies and their products. The companies selected included the six signatories of the International Food and Beverage Alliance (IFBA) Turkey Pledge (Annex 1), plus the most important international and national companies. For broadcast media, data were recorded on the five most popular local commercial television (TV) channels; each was recorded from 06:00 to 22:00 on two days, and all the advertisements were watched and coded.

The most common foods promoted on websites include chocolate; cakes, sweet biscuits and pastries; and sugary drinks. Only one in four of these products is in line with the criteria of the WHO Regional Office for Europe (2015) nutrient profile model (NPM). The corresponding figure for companies that signed the IFBA Pledge, was lower: one in five. When further analysed, the nutritional composition of foods advertised on websites showed significant variation, with many products containing high amounts of saturated fats, sugars and/or salt when nutritional information was verified. The primary persuasive appeals identified in marketing related to taste, health and nutrition, but also premium contests giving prizes. Just over a quarter of websites had specifically designated children's areas, and almost none had age restrictions for access. Links with TV advertisements and weblinks to social media pages were common.

The most common advertisements identified on TV were for food and drink (36.0%), followed by toiletries (18.0%). The most common food types advertised were: chocolate (20.7%); edible ices (18.8%); beverages (14.1%); savoury snacks (7.5%); cakes, sweet biscuits and pastries (6.9%); and ready-made and convenience foods and composite dishes (6.1%). Advertisements for non-core foods, which should not be encouraged for inclusion in the diet, peaked during children's viewing at 15.00–19.00. The food advertisements observed were also classified according to the WHO Regional Office for Europe (2015) NPM as to whether the foods were permitted to be marketed to children. In line with this assessment, 46.2% of food advertisements broadcast during children's peak viewing times did not comply with the NPM. Across all viewing

times, only 21.2% of the products would be permitted for marketing to children; a very high proportion of products (78.8%) were not.

The evaluation of the Healthy Nutrition and Active Lifestyle Programme in Turkey by the WHO Regional Office for Europe (2016) was urgently needed to assess current regulations and identify future action. It explicitly recommended that Turkey further develop methods for monitoring compliance with and action on marketing restrictions and formally adopt an NPM, which would make more explicit the list of foods for which marketing would be restricted. The broadcast authority in Turkey indicated that it both actively monitors such marketing and responds to complaints. Since this study was conducted, the broadcast authority has formally adopted criteria for defining HFSS foods (i.e. an NPM) that are closely aligned with the WHO NPM. Thus, this study will serve as a helpful baseline for the Ministry of Health in evaluating the implementation of the new nutritional criteria and further restricting food marketing to children in Turkey.

1. Introduction

1.1 Background and rationale

The Vienna Declaration on Nutrition and Noncommunicable Diseases, the WHO European Food and Nutrition Action Plan, the Action Plan for the Prevention and Control of Noncommunicable Diseases and the WHO Commissions on Ending Childhood Obesity and on Noncommunicable Diseases (WHO Regional Office for Europe, 2013b, 2014; WHO, 2016) all recommend that countries enact comprehensive programmes to promote the intake of healthy foods and reduce the intake of foods and non-alcoholic beverages high in saturated fat, salt and/or free sugars (HFSS foods). They give particular priority to nutrition for children and adolescents. A key recommendation is the full implementation of the WHO (2010) *Set of recommendations on the marketing of foods and non-alcoholic beverages to children*, reflecting the unequivocal evidence that the marketing of HFSS foods influences childhood obesity.

Food marketing to children on both TV and the Internet has been consistently found to affect children's knowledge and perceptions of food and to influence their preferences for foods and their consumption patterns (Boyland et al., 2016; Cairns et al., 2013). Food marketing frequently promotes so-called "non-core" foods and HFSS foods, including fast-food restaurant meals, chocolate and confectionery and sugary drinks, rather than healthy foods (Kelly et al., 2010; Pettigrew et al., 2013). Such foods do not form part of a healthy diet and would not typically be permitted by an NPM such as that of the WHO Regional Office for Europe (2015). Most data on food marketing prevalence come from high-income English-speaking countries – particularly Australia, New Zealand, the United Kingdom and United States of America – but findings consistently show that advertising for HFSS foods in and around child-oriented content and/or programming of appeal to children frequently uses dynamic, engaging, persuasive techniques (WHO, 2016). Research on TV advertising predominates, but more and more studies are being published that explore marketing online. In Ireland, researchers analysed exposure on the Internet by identifying the reach of the 113 most popular food brands, according to retail sales through Facebook to users aged 13 or 14 years. All 18 brands that Facebook estimated had the greatest reach in this age group featured sugar-sweetened carbonated drinks, fast foods, savoury snacks, sweets, chocolate and ice cream. Content analyses of the power of these Facebook posts found they used the tactics of engagement, emotion and entertainment, with competitions, humour, links to entertainment events, bold graphics and links to eventful special days (Tatlow-Golden, 2016).

In addition, adolescents interact with the mass media more often than before, engaging via social media in liking and sharing commercial communications, resulting in additional peer-to-peer dissemination via friendship networks (WHO, 2016). In the United Kingdom, 73% of 1000 young people aged 13–17 years reported following brands that they liked on social media; 62% clicked on advertisements and 57% made purchases through applications (apps) or games (Carroll, 2016). As a result, children and adolescents continue to be the targets of intensive and aggressive food marketing and advertising through multiple commonly used channels of technology, despite calls for curbs on these practices (Story, 2002).

WHO therefore explicitly called on Member States to introduce comprehensive restrictions on the marketing of HFSS foods to children, covering all media, including digital, and progressively to close any regulatory loopholes.

An external evaluation of the Healthy Nutrition and Active Lifestyle Programme in Turkey by the WHO Regional Office for Europe (2016) recommended that the Government take more action on food marketing to children, by expanding restrictions and adopting a nutrient profile model. The evaluation also recommended that the Government adopt a monitoring system. Within the evaluation's recommendations, the WHO Regional Office for Europe stated the need for assessments of both exposure to marketing (the quantity, frequency, and reach of marketing communications to children for unhealthy foods) and its power (the prevalence of specific techniques used). The Regional Office therefore developed a protocol that outlines methods for monitoring food marketing activity that would capture both exposure and power, and can be used to support policy formation or evaluate existing policy in the area of food marketing to children (Boyland, 2016; WHO Regional Office for Europe, 2014).

Continued monitoring is needed in Turkey to ensure that up-to-date evidence is available to inform and strengthen policy, and that existing policies are adequately evaluated. In particular, more routine and sophisticated monitoring of digital marketing is needed (WHO, 2016). For this reason, this study on monitoring food marketing to children in Turkey is timely and makes an important contribution to the international literature.

1.2 Analysis of the situation in Turkey

The results of the Turkey Demographic and Health Survey 2008 showed that one third of the population in Turkey aged over 15 is overweight and one in seven is obese (TURKSTAT, 2009). According to the WHO European Childhood Obesity Surveillance Initiative (COSI), 22.5% of children aged 6–8 are overweight or obese in Turkey (COSI-TUR, 2014; WHO, 2016).

Excessive energy intake, unbalanced nutrition and a lack of physical activity are among the factors that cause obesity. While genetic, neurological, physiological, biochemical and psychological factors have an influence, environmental and sociocultural factors are widely accepted to play a particularly important role in the increasing frequency of obesity, especially in childhood, all over the world. For example, current food environments can promote the wide availability and affordability of HFSS foods, encourage overall excessive food intake and inhibit physical activity. The literature identifies increased marketing of ready-to-eat HFSS foods as an important environmental factor (French et al., 2001).

In the context of high rates of obesity and widespread unhealthy diets in Turkey (WHO, 2016; WHO Regional Office for Europe, 2014), the Government adopted a Healthy Nutrition and Active Lifestyle Programme to increase knowledge and stimulate behaviour change in relation to balanced diets and the benefits of regular physical activity (Ministry of Health, 2011). The Programme also highlighted the need to act on the environmental determinants of unhealthy diets and obesity, notably through activities targeting foods available in schools and the workplace.

The Programme explicitly included actions to address the marketing of foods to children in the media and in schools, and the Government stated that this would require a combination of regulations and cooperation with the food industry. Regulations prohibiting marketing in schools were introduced (Ministry of Education & Ministry of Health, 2016a–b). Regulations on advertising of foods to children in broadcast media (radio and TV) had been in place since 2011 (Turkey Radio and Television Supreme Council, 2011). Article 9, Paragraph 7, subparagraph (a) specifically prohibits the marketing of foods and beverages containing ingredients that are “not recommended for excessive consumption in general diets, such as trans fats, salt or sodium and sugar, before, during and after children’s programming”, and subparagraph (b), amended on 4 April 2016, further stipulates that, if commercial communications about such foods and beverages are included in programmes other than children’s programmes, easily readable health promotion messages encouraging physical activity and a healthy diet should be shown in a banner on the lower part of the screen.

The broadcast authority indicated that it both actively monitors such marketing and responds to complaints. While this is encouraging, the criteria for defining HFSS foods (i.e. an NPM) were formally adopted only recently, meaning that full implementation was difficult. In early 2018 (since this study was completed), however, the Ministry of Health and the broadcast authority adopted a set of nutritional criteria that are an adapted version of the NPM of the WHO Regional Office for Europe (Turkey Radio and Television Supreme Council, 2018).

In addition, IFBA signed a pledge not to advertise to children below 12 years of age in Turkey (Annex 1), except for products that meet nutritional criteria (Ministry of Health, 2004). For IFBA, this applies to advertising during programmes for which more than 50% of the audience is under 12. This is a high audience threshold, meaning that the Pledge would not apply to many programmes popular among and viewed by large numbers of children. This criticism has been levelled at other international pledges (Jensen & Ronit, 2015).

The WHO Regional Office for Europe (2016b) evaluation of the Healthy Nutrition and Active Lifestyle Programme recommended the adoption of an NPM and the extension of existing marketing restrictions to cover all media, including non-broadcast media. This would reflect the changing communications environment, in which marketing is more widely integrated across platforms such as TV and the Internet, and children increasingly use personal devices to access the

Internet. Such restrictions would also reflect international initiatives to regulate the media and to ensure that marketing communication is technology neutral: that the same protection applies both online and offline. The evaluation also recommended that regulations more clearly define the age of the children concerned and the programming and marketing “targeted at” or “of appeal to” them.

Despite the broadcast authority’s routine monitoring of media and advertising, the evaluation found no published data on the situation (WHO Regional Office for Europe, 2016b). It found that this was urgently needed to assess the current regulations and identify future action. The evaluation also explicitly recommended that Turkey further develop methods for monitoring compliance and action on marketing restrictions.

To support the follow-up to the evaluation, WHO agreed with the Ministry of Health in Turkey to assess of food marketing to children in the current media environment. It was agreed to focus on broadcast (TV) and digital marketing (the Internet) using the protocol of the WHO Regional Office for Europe (Boyland et al., 2016).

1.3 Prior knowledge of the media environment in Turkey

The Turkish Statistical Institute (TURKSTAT) survey on time usage in 2014–2015 showed that (TURKSTAT, 2017):

- 94.6% of individuals aged over 10 years watch TV as a social activity and 33.9% report using social media websites on the Internet; and
- 92.5% of children aged 10–14 watch TV every day for at least four hours and 76.8% report movies and soap opera as their preferred types of programming.

On average, children in Turkey start using computers at the age of 8 years and using the Internet at 9 years (TURKSTAT, 2013).

The Internet is a continuously growing communication network and the number of people using it is rapidly increasing worldwide, including in Turkey. The number of Internet users in Turkey was 239 000 in 1998 and 14 million in 2005 (Cömert & Kayıran, 2010).

A study of children in Turkey aged 3–18 years found that 35.7% of families have a computer at home and 21.7% have an Internet connection at home; the higher the parents’ educational status, the more electronic devices at home (Arnas Aktaş, 2005). Multiple studies, including the series carried out by the international research network EU (European Union) Kids Online, report that the Internet locations most visited by children are not dedicated to children but are platforms that provide access to a wide range of content for mixed ages, such as Google, Facebook, Instagram and YouTube (Mascheroni & Olafsson, 2014). Younger children (9–11 years) in Europe go on the Internet mainly to watch videos on YouTube, for example. Social networking dominates among older children: over 50% of those aged 13–16 have a social network profile, with numbers steeply increasing with age (Sozio et al., 2015).

According to a recent study from Turkey, children use the Internet for the following reasons: (Karayağız Muslu & Bolışık, 2009)

- to study for school (92%)
- for entertainment: to watch videos (59%)
- to play games (9%)
- to share on social networks with their friends (48%)
- to download music or movies (40%).

In the context of this study, a pilot study was initiated in Turkey to further understand how much time children aged 10–17 spend online, which online games they play and which websites and social media sites they visit. Conducted in three schools in Çankaya/Ankara, it also asked participants about their food preferences.

The participants comprised 485 students with an average age of 12.05 ± 0.09 years (48.9% boys). The study found that 24.1% of the students have their own computers, and the proportion having their own electronic devices rose with age. Of the participants aged 10–16 years, 79.3% have their own social media accounts. The rate is 98% for high-school students, who are most likely to have an Instagram account, and 55.9% for primary-school students, who are most likely to have a Facebook account. In addition, 33.4% of the young people use the Internet from their own rooms, which could result in decreased family control of their Internet activity. On average, students spend 2.23 ± 2.02 hours on weekdays and 3.82 ± 3.11 hours on weekends on the Internet; 37.1% play online games and 87.1% visit websites other than game sites. The most popular of the latter, including for daily use, were YouTube (visited by 40% of the students), Facebook (17%) and Instagram (15%). Twenty percent of children in all age groups visit the websites of food companies and food.

An analysis of students' reported preferences for packaged and fast foods showed that their first preference is for chocolate, followed by crisps and then chocolate bars for primary-schoolchildren and fast food for high-school students. The students stated that advertisements affect their food choices; 54.8% said they can trust these advertisements.

The researchers also asked the young people about the best-known and most visited food brands. This generated a list of companies that contributed to the methodology for the Internet component of the larger study. The companies best known to students were Ülker (30%) and Eti (12%). These are the largest local companies, which specialize in biscuits, chocolates and similar products. Ülker has been marketing since 1944 and Eti was founded in 1961, according to their statements. In addition, a search was conducted on YouTube for popular food advertisements in Turkey for 2016. This generated a further list that indicated the most popular food brands among children in Turkey.

These findings gave further justification for the study on food marketing to children in Turkey and helped to refine its methods.

1.4 Study objective

The aim of the study described here was to assess Turkish children's exposure to marketing for foods via Internet and TV.

2. Method of data collection and analysis

The protocol for this research combined the best attributes of previous studies (Boyland et al., 2011; Kelly et al., 2010), the WHO framework for implementing the set of recommendations on the marketing of foods and non-alcoholic beverages to children (WHO, 2010), the monitoring framework described by Kelly et al., as part of the International Network for Food and Obesity/Non-communicable Diseases Research, Monitoring and Action Support (INFORMAS), and the Consumers International manual for monitoring food promotions to children (Consumers International, 2011; Kelly et al., 2013), and reflects the rationale outlined in the background section. The study was carried out in March–September 2017.

2.1 Sampling

2.1.1 Internet

A total of 20 food companies' websites were examined; the company pages selected included the six signatories of the IFBA Turkey Pledge (Annex 1) and the most important national and international companies that rank as the most well known to young people, according to the investigators' pilot study and an online search of popular food advertisements in Turkey. The YouTube search terms were: child, most watched, food, advertisements.

The websites of the following companies were reviewed:

- signers: Coca-Cola, PepsiCo, Unilever, Mars (later excluded as it does not have a website in Turkey), Nestlé, Kraft; and
- others: Pastavilla, Tamek, Danone, Koska, Tat, Kinder, Sütaş, Pınar, Torku, Eker, Şölen, Eti, Ülker, Haribo, Sarelle.

All of the pages available at the company websites were evaluated, including the main landing pages and any links from them, for example, to social media pages or specific products sold by the company. For every company surveyed, a minimum of five food or beverage products was evaluated, totalling 117 branded products.

Screenshots of homepages and product pages were saved and shown as a code number at the end of each line in an Excel file. Moreover, where the webpage displayed products with options for online shopping and language change, this information was recorded.

2.1.2 TV

TV data were recorded in the following way. A sample of two days was recorded during April 2017: one weekday and one weekend day. The five commercial TV channels most popular among young people under 16 years were selected. As consideration was given to the reach of channels, cable TV channels were selected, because these are the most widely watched channels in Turkey.

According to the viewing ratings for TV channels as of 1 April 2017 (CanlıTV, 2017), A Haber, Kanal D, Show, Atv, and Startv were selected as the most popular national channels. National channels were chosen as these are the only ones subject to regulation by the national broadcast authority. Peak viewing times are 08:00–10:00 and 16:00–21:00 (Turkey Radio and Television Supreme Council, 2013). On 6 April 2017 (Wednesday), and 9 April 2017 (Sunday), all channels were recorded for 16 hours: 06:00–22:00. Research assistants viewed the recordings and coded a small selection of advertisements according to the predefined criteria set out in the research protocol. After that, project managers checked the coding to remove any inconsistencies and the research assistants coded these figures again. Following this check of intercoder reliability, the full sets of recordings were coded for food marketing to children.

As to **exclusion criteria**, sponsored advertisements for the show/programme were not included; neither were any promotions included in the content of the show/programme itself.

As to **inclusion criteria**, all recorded advertisements were watched and data were entered into an Excel spreadsheet according to the coding methods described in the WHO Regional Office for Europe protocol (Boyland et al, 2016). Details of food-related advertisements were further coded, with nutritional information available from the food company website. Where necessary, the ingredients list was checked. The products were then coded against the WHO NPM.

The data were collected during April 2017, and the coding reflects what was available on websites during that period. Screenshots of the webpages reviewed were taken. Where applicable, the study investigators played the first level of each advergame and noted any forms of advertising present within the game.

2.2 Standardization

Intercoder reliability was established. Prior to beginning the data coding and analysis, each person coded one hour of TV and/or one website, determined the correlation between the results (person 1/person 2) and resolved any discrepancies in the coding.

The author of this report prepared the coding and researchers' manual, and trained the researchers in coding both Internet and TV advertisements (Annex 2).

2.3 Ethics

TV advertisements and websites of food companies were reviewed in line with the right to information, and no consent was required or issued.

3. Results

This section presents the results of the study, according to exposure and power variables for advertising on the Internet and TV.

3.1 Result of study on websites

Here are the key findings for websites.

- The most common foods promoted include chocolate; cakes, sweet biscuits and pastries; and sugary drinks.
- Only one in four of these products meets the criteria of the WHO Regional Office for Europe (2015) NPM. For companies that signed the IFBA Pledge, the figure was lower: one in five.
- The nutritional composition of foods advertised on websites showed significant variation, with many products containing high amounts of saturated fats, sugars and/or salt when nutritional information was verified
- The primary persuasive appeals identified in marketing related to taste, health/nutrition, but also premium contests (e.g. prizes).
- Just over a quarter of websites had a specifically designated children's area, and close to zero had age restrictions on access.
- Links with TV advertisements and weblinks to social media pages were common.

The websites of 20 companies – 14 national companies and six international companies – were analysed. In total, 117 homepages were analysed (Table 1).

Table 1. Distribution of assessed food product websites according to parent company

Company	Websites	
	N	%
Coca-Cola	9	7.7
Eker	6	5.1
ETİ	6	5.1
Haribo	6	5.1
Kinder	6	5.1
Kraft	6	5.1
Pınar	6	5.1
Sarelle	6	5.1
Sütaş	6	5.1
Şölen	6	5.1
Tamek	6	5.1
Tat	6	5.1
Torku	6	5.1
Ülker	6	5.1
Danone	5	4.3
Koska	5	4.3
Nestlé	5	4.3
Pastavilla	5	4.3
PepsiCo	5	4.3
Unilever	5	4.3
Total	117	100.0

As to **exposure variables**, the websites of each of these companies were reviewed, including individual subpages promoting food products, covering a minimum of five products (Annex 3). In accordance with the WHO Regional Office for Europe (2015) NPM, the products promoted via these websites are chocolate (25.6%); cakes, sweet biscuits and pastries (13.4%); beverages (9.4%); and yoghurts and similar products (9.4%). Only 25.6% of the products categorized as being marketed to children on these websites would meet the criteria of the Regional Office NPM (Table 3).

Table 2. Classification of food products advertised on company websites according to the categories contained in the WHO Regional Office for Europe NPM

Food categories	Products	
	N	%
Chocolate and similar	30	25.6
Cakes, sweet biscuits and pastries	16	13.7
Beverages – other (including carbonated sodas)	11	9.4
Yoghurts, sour milk, cream and other similar foods	11	9.4
Processed fruit, vegetables and legumes	9	7.7
Beverages – juices	6	5.1
Ready-made and convenience foods and composite dishes	6	5.1
Beverages – milk drinks	5	4.3
Butter and other fats and oils	4	3.4
Breakfast cereals	4	3.4
Savoury snacks	4	3.4
Sauces, dips and dressings	3	2.6
Edible ices	3	2.6
Processed meat, poultry, fish and similar	2	1.7
Cheese	2	1.7
Fresh and frozen fruit, vegetables or legumes	1	0.9
Total	117	100.0

The food products and types of marketing identified on the websites were categorized according to the guidance in the WHO “Monitoring food marketing to children” Internet advertisement monitoring spreadsheet (Boyland et al., 2016). Of the products identified as being marketed to children on the selected websites, 74.4% did not comply with the WHO NPM (Table 3), and thus can be considered not suitable for marketing to children. The corresponding figure for products of signatories to the IFBA Pledge was 80%, meaning only 20% of products advertised complied with WHO guidance.

Table 3. Products for which marketing is permitted or not permitted according to the WHO NPM

Marketing permitted	Products	
	N	%
Yes	30	25.6
No	87	74.4
Total	117	100.0

According to nutritional information for the products available on the websites, the composition of products varied significantly (Table 4).

Table 4. Provision of nutritional information online for 117 food products on assessed websites

Nutrition content	Information present		No information		N/A	
	N	%	N	%	N	%
Total fat	56	47.9	15	12.8	46	39.3
Saturated fatty acids	33	28.2	15	12.8	69	59.0
Total carbohydrates(CHO)	58	49.6	1	0.9	58	49.6
Non-sugar sweeteners	3	2.4	69	59.0	45	38.5
Salt	42	35.9	10	8.5	65	55.6
Energy	71	60.7	–	–	46	39.3

Amounts of total fat, saturated fatty acids, CHO, sugar, salt and energy per 100 g were analysed (Table 5). The average energy content of foods was 338.0 kcal (1290.64 kJ) energy per 100 g.

Table 5. Distribution criteria in nutrition contents of analysed products

Contents	N	Minimum–Maximum (per 100g)	Median (per 100g)	X ± SD ^a (per 100g)
Total fat (g)	71	0.00–82.0	3.7	15.17 ± 19.02
Saturated fatty acids (g)	48	0.00–22.80	0.5	5.40 ± 7.76
Total CHO (g)	59	0.00–88.5	35.2	36.12 ± 28.4
Total sugar (g)	70	00.0–74.5	35.2	36.12 ± 28.4
Salt (g)	52	0.00–4.44	0.19	0.35 ± 0.64
Energy (kcal)	71	0.20–742.0	338.0	308.47 ± 211.47

^a SD = standard deviation.

3.1.1 Persuasive techniques observed

The first five food and beverage webpages found on companies' main websites and the main webpages of food and beverages were examined. When these were reviewed for persuasive power, products' taste and flavour were the most important primary persuasive appeal (Table 6), followed by an appeal to health and nutrition (16.2%) and promotions to be gained with product purchase. Of the assessed websites, 26.5% have specific child-designated areas.

Table 6. Distribution of the products according to primary persuasive appeal

Primary persuasive appeal	Products	
	N	%
Taste	53	45.3
Health/Nutrition	19	16.2
Premium contest	16	13.7
Enjoyment/Satisfaction	11	9.4
Fun	10	8.4
New product introduction	5	4.3
Convenience	1	0.9
Energy	1	0.9
Offers choices/options	1	0.9
Total	117	100.0

A wider variety of further techniques was used, in addition to the primary persuasive appeal. The most common persuasive techniques were as follows: brand logos, images of product or packaging, brand-owned YouTube channel, links to social media platforms, brand imagery in background scenery, and child or child-like characters (Table 7). All advertisements for food products using child-like characters that were found on websites were categorized according the Regional Office NPM (WHO Regional Office for Europe, 2015). Of all these advertisements, only 23.7% complied with the WHO NPM criteria.

Table 7. Persuasive techniques (advertising power) identified on websites

Increased site engagement (N: 117)	Present		Not present	
	N	%	N	%
Brand logos	116	99.1	1	0.9
Images of the product or packaging	109	93.2	8	6.8
TV advertisements	107	91.5	10	8.5
Links to social media platforms	105	89.7	12	10.3
Brand owned YouTube channel	104	88.9	13	11.1
Product in background scenery	65	55.6	52	44.4
Direct prompts to forward/like/share with friends	63	53.8	54	46.2
Child or child-like character (other than brand equity/licensed character)	38	32.5	79	67.5
Sign-up to newsletter	35	29.9	82	70.1
Surveys or polls	28	23.9	89	76.1
Premium offers	27	23.1	90	76.9
Brand or product as game piece	27	23.1	90	76.9
Brand Logos within advergama ^a	27	23.1	90	76.9
New/upcoming advertisements	25	21.4	92	78.6
Clicking or moving mouse over product	23	19.7	94	80.3
Celebrity endorsers	23	19.7	94	80.3
Tag lines featured in games	16	13.7	101	86.3
Brand equity characters	14	12.0	103	88.0
Advergama	13	11.1	104	88.9
Point collection for products codes	12	10.3	105	89.7
User-generated content	11	9.4	106	90.6
TV programmes, movies	10	8.5	107	91.5
Clickable electronic buttons	8	6.8	109	93.2
Member clubs	6	5.1	111	94.9
Dynamic audiovisual components	6	5.1	111	94.6
Activity such as collection or drawing	5	4.3	112	95.7
Leader Boards	3	2.6	114	97.4
High score rewards	3	2.6	114	97.4
Branded downloadable materials including wallpapers	2	1.7	115	98.3
Licensed characters	1	0.9	116	99.1

^a Advergame = a downloadable or Internet-based computer game that advertises a brand-name or logo of a product by featuring it as part of the game.

Of product advertisements observed on the websites, 35.9% included or promoted health claims on the websites or the products (Table 8).

Table 8. Presence and type of health claims identified in product advertisements

Claims	Advertisements	
	N	%
Present	42	35.9
Natural ingredients/All natural/No preservatives/Nothing artificial	23	54.7
Whole grain/wheat	8	19.0
Provides essential nutrients (including protein, calcium, potassium, vitamins, antioxidants)	7	16.7
Sugar free	2	4.8
Low calorie/light	1	2.4
Heart healthy	1	2.4
Not present	75	64.1
Total	117	100.0

Only 8.5% of product webpages depict physical activity. Disclaimers are rare. The primary target for 76.1% of products advertised on the assessed webpages is the whole family, while 13.7% specifically targeted children and young people. There is no age restriction, however, on 97.4% of the webpages (Table 9).

Table 9. Characteristics of the webpages of food products reviewed

Characteristics (N: 117)	N	%
Physical activity depicted		
Yes	10	8.5
No	107	91.5
Disclaimers		
None	109	93.2
Part of a balanced/complete/nutritious breakfast or meal	5	4.3
Enjoy in moderation	3	2.6
Primary target		
All ages/Whole family	89	76.1
Children and teenagers	16	13.7
Teenagers and adults	8	6.8
Children	3	2.6
Adults	1	0.9
Age restrictions		
Present	3	2.6
Not present	114	97.4
Peer influencers (video bloggers – vloggers)		
Yes	67	57.3
No	50	42.7
Online marketing		
Present	20	17.1
Not Present	97	82.9
Language buttons		
Present	76	65.0
Not present	41	35.0

3.2 Results of the study on TV advertisements

3.2.1 Key findings for TV

- The most common foods promoted in TV advertisements include chocolate, edible ices, sugary drinks and savoury snacks, followed by sweet biscuits and pastries and then ready-made and convenience foods.
- Across all viewing times, only one in five of these products meets the criteria of the WHO Regional Office for Europe (2015) NPM. Only around half of products advertised during peak viewing times for children would be permitted to be marketed to children.
- The nutritional composition of foods advertised on webpages showed significant variation, with many products containing high amounts of saturated fats, sugars and/or salt, when nutritional information was verified.
- The primary persuasive appeals identified in marketing related to the novelty and taste of the product, and humour.
- Dynamic audiovisual elements were the most common power variables identified.

Each TV channel was recorded for 16 hours on a weekday and 16 hours on a weekend day, for a total recording time of 32 hours per channel, so 160 hours of TV across the five channels were assessed. In total, the investigators watched 3962 advertisements; 48.6% of these were broadcast on weekdays and 51.4% at weekends. Overall, 54.1% of these advertisements were broadcast at non-peak times; while 45.9% were broadcast at peak times. According to the Regional Office NPM, 79% of the advertisements broadcast promoted products that should not be permitted to be marketed to children. Of food advertisements, 45.9% were broadcast during peak hours. Table 10 presents the distribution of advertisements on recorded TV channels; Annex 4 lists the programme names, and the time periods and duration of the advertisements.

Table 10. Distribution of advertisements observed on weekdays and weekends

TV channels	Weekdays		Weekends		Total	
	N	%	N	%	N	%
Star TV	447	23.2	507	24.9	954	24.1
Show TV	422	21.9	494	24.3	916	23.1
Atv	454	23.6	455	22.3	909	22.9
Kanal D	417	21.7	447	22.0	864	21.8
A Haber	186	9.7	133	6.5	319	8.1
Total	1926	48.6	2036	51.4	3962	100.0

The most common TV programme category was soap opera. In terms of product types advertised, the most common are food and drink (36.0%), followed by toiletries (18.0%). The most common food types advertised are as follows: chocolate (20.7%); edible ices (18.8%); beverages (14.1%); savoury snacks (7.5%); cakes, sweet biscuits and pastries (6.9%); and ready-made and convenience foods and composite dishes (6.1%) (Table 11). This is consistent with the international evidence.

Table 11. Programme categories, product types and Regional Office NPM categories of the advertisements on TV channels

Programme categories, product types and NPM categories	N	%
Programme category (N: 3962)		
Soap opera	1206	30.4
News/Commentary	931	23.5
Entertainment/Variety	230	5.8
Movie	192	4.8
Reality	179	4.5
Game	117	3.0
Children's	34	0.9
Other	1073	27.1
Advertised product type (N: 3962)		
Food and drink	1272	32.1
Toiletries	713	18.0
Household cleaners/detergents	428	10.8
Utilities	199	5.0
Financial	176	4.4
Household equipment	159	4.0
Vitamin and mineral supplements	140	3.5
Publishing	110	2.8
Public information/Announcements	73	1.8
Channel promotions	55	1.4
Clothes/Shoes	48	1.2
Travel/Transport/Holidays	48	1.2
Motoring	47	1.2
Toys	35	0.9
Retail and mail order	32	0.8
Other	427	10.8
WHO NP category (N: 1272)		
Chocolate and similar	263	20.7
Edible ices	239	18.8
Beverages – other (including carbonated sodas)	179	14.1
Savoury snack	96	7.5
Cakes, sweet biscuits and pastries	88	6.9
Ready-made and convenience foods and composite dishes	77	6.1
Fresh and frozen meat, poultry, fish and similar	53	4.2
Processed meat, poultry, fish and similar	49	3.9
Yoghurts, sour milk, cream and other similar foods	42	3.3
Butter and other fats and oils	36	2.8
Beverages – milk drinks	35	2.8
Cheese	35	2.8
Beverages – energy drink	35	2.8
Beverages – juice	25	2.0
Breakfast cereals	8	0.6
Sauces, dips and dressing	8	0.6
Processed fruit, vegetables and legumes	4	0.3

Using the categories of “core” and “non-core” foods employed in previous international studies (e.g. Kelly et al., 2010), the majority of advertisements (expressed by the number of food advertisements per hour across the day) are for non-core foods (see Fig. 1), peaking from 15.00–19.00 during children’s viewing. Non-core foods are those that should not be encouraged as part of healthy diets. The food advertisements observed were also classified according to the WHO NPM as to whether the foods advertised are permitted for marketing to children. In line with this assessment, 46.2% of food advertisements broadcast during children’s peak viewing times did not comply with the WHO NPM (see Table 12). Across all viewing times, only 21.2% of the products would be permitted for marketing to children, with a very high 78.8% of products not permitted.

Fig. 1. Frequency of food advertisements per hour, 06:00–21:59

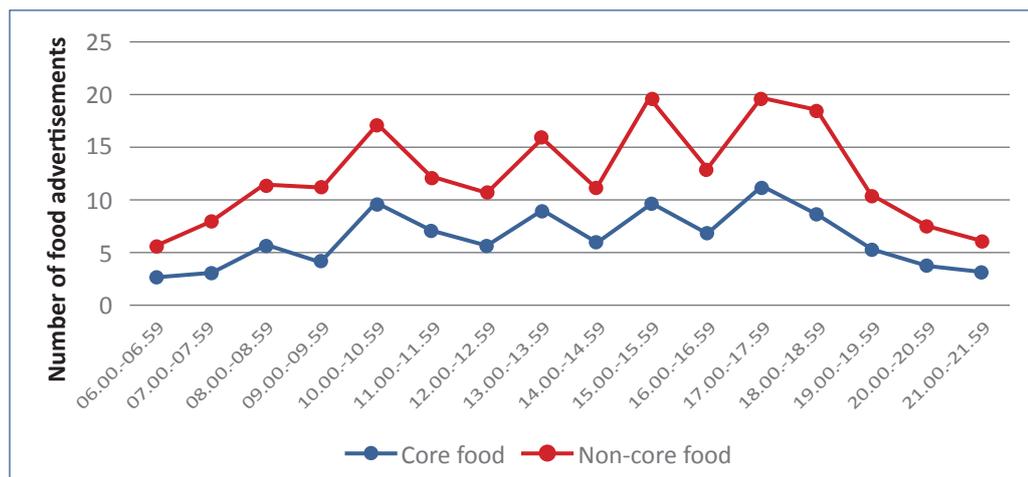


Table 12. Categorization of food advertisements observed during all viewing times according to the WHO nutrient profile model

Marketing permitted	Advertisements	
	N	%
Yes	270	21.2
No	1002	78.8
Total	1272	100.0

To inform this exercise, the nutritional content of advertised foods was reviewed and the nutritional content of 1272 advertised food products was analysed. After nutritional content per 100 g was analysed, median and average values were assessed. On average, products contained (per 100 g): 14.15 g total fat, 4.64 g saturated fatty acids, 30.08 g total CHO, 11.41 g total sugar, 0.64 g salt and 272.01 kcal (1138.09 kJ) energy (Tables 13 and 14).

Table 13. Availability of nutrient content information obtained online product advertisements (N:1272)

Nutrients	Present		Not Present		N/A	
	N	%	N	%	N	%
Total fat	575	45.2	94	7.4	603	47.4
Saturated fatty acids	386	30.3	283	22.2	603	47.4
Total CHO	485	38.1	33	2.6	754	59.3
Non-sugar sweeteners	–	–	–	–	1272	100.0
Salt	503	39.5	46	3.6	723	56.9
Energy	646	50.8	5	0.4	621	48.8

Table 14. Nutritional composition of advertised food products according to information obtained online

Nutrients	N	Minimum–maximum (g/100g)	Median (g/100g)	X ± SD (g/100g)
Total fat	669	0.00–59.0	10.8	14.15 ± 14.28
Saturated fatty acids	669	0.00–20.0	0.9	4.64 ± 6.48
Total CHO	518	0.00–82.16	21.3	30.08 ± 27.18
Total sugar	596	0.00–56.70	0.0	11.41 ± 18.05
Salt	549	0.00–1.9	0.5	0.64 ± 0.59
Energy	651	0.00–544	200.0	272.01 ± 183.05

The primary persuasive appeals observed included communication related to the novelty of the product (16.5%), taste (15.6%) and humour (13.8%) (Table 15).

Table 15. Primary persuasive appeal observed in food advertisements broadcast on TV channels during weekdays and at weekends

Primary persuasive appeal	Advertisements	
	N	%
New production information	210	16.5
Taste	199	15.6
Humour	175	13.8
Convenience	160	12.6
Price	117	9.2
Health/Nutrition	83	6.5
Quality	79	6.2
Enjoyment/Satisfaction	50	3.9
Fun	25	2.0
Peer status/sex appeal	25	2.0
Premium contest	25	2.0
Offers choices/options	18	1.4
Unique	17	1.3
Energy	16	1.3
Corporate information	9	0.7
General superiority	4	0.3
Other	60	4.7

Of the food advertisements, 93.2% include dynamic audiovisual components; 3.1% include brand equity characters, and 0.9%, licensed characters. Some of the food advertisements present the webpage of the product (17.7%) or a link to social media (6.3%) (Table 16). In addition, advertisements for 98.3% of the food products have their own brand logos and 15.4% use child or child-like characters. Celebrities have roles in only 7.3% of the advertisements; when they are used, however, they introduce the product and encourage people to buy (Table 17).

Table 16. Power variables observed in food advertisements broadcast on TV channels during weekdays and at weekends

Power variables (N: 1272)	Present		Not present	
	N	%	N	%
Visual and auditory appeal				
Dynamic audiovisual components	1186	93.2	86	6.8
Brand synergy				
Brand equity characters	39	3.1	1233	96.9
Licensed characters	12	0.9	1260	99.1
Celebrities	93	7.3	1179	92.7
Web address provided	225	17.7	1047	82.3
Links to social media platforms	80	6.3	1192	93.7
Brand and product imagery				
Brand logos	1250	98.3	22	1.7
Images of the product or packaging	1250	98.3	22	1.7
Child or child-like character (other than brand equity/licensed character)	196	15.4	1076	84.6
Premium offers	25	2.0	1247	98.0

Table 17. Presence of celebrity endorsers in food advertisements broadcast on TV channels during weekdays and at weekends

Celebrity endorsers (N: 93)	Advertisements	
	N	%
Entertainer	36	38.7
Athlete	20	21.5
Other	37	39.8

Further, 94.7% of the advertisements do not include any health-related imagery or messaging. Of the advertisements that do include health-related imagery or messaging, 77.9% include health claims relating to the provision of essential nutrients. In this study, none of the identified food advertisements depict physical activity. In addition, only 12.8% of advertisements include health-related disclaimers, e.g. advice to be physically active or eat a balanced diet (Table 18). While 57.6% primarily target families and all age groups, 11.8% explicitly target children and young people. Of the advertisements broadcast at peak times, 11.1% explicitly target children and young people and only 19.5% of such advertisements promote products suitable for marketing to children according to the WHO Regional Office for Europe (2015) NPM (Table 19).

Table 18. Distribution of broadcast advertisements according to health claims, depiction of physical activity and disclaimers

Health-related imagery or messaging (N:1272)	Advertisements	
	N	%
Health claims		
None	1204	94.7
Present	68	5.3
Provide essential nutrients	53	77.9
Organic	4	5.9
Other	11	16.2
Physical activity		
Depicted	–	–
Not depicted	1272	100.0
Disclaimers		
None	1109	87.2
Other	163	12.8

Table 19. Primary target audience for food advertisements observed on TV channels during weekdays and at weekends

Primary target (N:1272)	Advertisements	
	N	%
All ages and whole family	733	57.6
Adults	206	16.2
Teenagers and adults	157	12.3
Children	77	6.1
Children and teenagers	72	5.7
Older adults	27	2.1

4. Discussion

Turkey is a signatory to the Vienna Declaration and the European Charter on Counteracting Obesity, which recommend considering restrictions on marketing to children as policy options for governments' strategies against obesity (WHO Regional Office for Europe, 2006, 2013b). In addition, Turkey has committed, through national policies contained in the Healthy Nutrition and Active Life Programme to restrict food marketing to children, and some notable steps have been taken with the broadcast authorities to introduce stricter rules. Despite these important commitments and efforts, however, the findings of this study clearly show that the current landscape of food marketing continues to be extremely unhealthy. This suggests that more can be done to protect Turkish children against exposure to HFSS foods on TV and the Internet.

In some respects, marketing practices in Turkey follow a pattern similar to those in other countries. Food and drink comprises the most heavily advertised product category on TV (36% of total advertisements) and marketing foods online is common, including via social media. In addition, the majority of food advertisements on Turkish TV channels and online on company webpages are for energy-dense, HFSS foods or restaurant advertisements that do not comply with the WHO Regional Office for Europe (2015) NPM: overall, less than 21.2% of TV advertising and 25.6% of online advertising represent core, nutrient-dense items.

A comparison of the findings of this study with previous literature shows that the percentage of food and drink advertisements on TV is higher in Turkey than some other countries, such as the United Kingdom, that have performed comparable studies. Marketing on TV during peak viewing times is found to explicitly target children, and it is commonly for HFSS foods not complying with the NPM, as mentioned: 46.2% during children's peak viewing time, and 78.8% across all viewing times. The five foods most commonly advertised on TV are: chocolate (20.7%), edible ices (18.8%), beverages (14.1%), savoury snacks (7.5%) and cakes, sweet biscuits and pastries (6.9%). The most commonly promoted foods on company websites and social media pages are: chocolate 25.6%, cakes, sweet biscuits and pastries 13.7%, beverages-other and Juices 14.5%. This strongly contrasts with dietary guidelines for Turkey (Ministry of Health, 2004) and supports evidence from multiple international studies indicating that HFSS foods dominate advertising on both TV and the Internet, with very little marketing for healthier foods such as fruits and vegetables (Cairns et al., 2009).

In the study sample, food advertisements on TV were frequently aired during children's programmes, similar to the trend in other countries (Cairns et al., 2009, 2013; Kelly et al., 2010). In addition, HFSS food advertisements were frequently aired on TV during peak viewing periods. Although they did not always explicitly target children, they frequently used techniques that appeal to children, such as dynamic audiovisual elements (96.7%), thus acting on the combination of exposure and persuasive techniques known to enhance advertisements' impact on children. Notably, there was a concentration of food advertising on TV: two thirds of all child-focused advertisements, of which the majority were for non-core foods, were broadcast during a four-hour period (15:00–19:00). Further, company websites widely used the same primary persuasive appeal to children, such as: taste (45.3%), health/nutrition (16.2%) and premium content (13.7%). In contrast to other countries, where advertisements often use celebrities to introduce products and encourage people to buy, few advertisements in Turkey (only 7.3%) give a role to celebrities. In addition, the use of brand equity characters and licensed characters in this sample appeared to be relatively rare.

This research had some limitations. Its cross-sectional, descriptive nature means that it could not explicitly link advertising with potential behavioural outcomes in children. Nevertheless, this was not the intention of the research and strong international evidence, based on high-quality controlled studies, already convincingly shows that advertising and other forms of marketing influence children's behaviour. Thus, this study provides further relevant information on an important factor the prevalence of an important factor influencing the etiology of unhealthy diets and obesity in Turkey. A further possible limitation is that differences in the categorization of health and unhealthy foods across countries and studies may limit the comparability of the results. This study's use of the WHO Regional Office for Europe (2015) NPM may classify foods differently than previous research based only on the distinction between non-core and core foods. While the use of the WHO NPM in this study involved additional work to collect data on the nutritional composition of foods, when compared to the previous categorization of core and non-core foods, the NPM enables more precision. Its increasing use in research across countries will bring more consistency to the literature and enhance comparability over time. Further, given that the Turkish NPM follows the WHO NPM closely, its use in this study will assist the Government in establishing the baseline for future monitoring.

Only national TV stations were included in the survey, as only these channels can be subject to statutory regulation by the Turkish broadcast authority. This raises concern about inappropriate advertising to children on TV channels (and other media platforms such as the Internet) originating from outside the country's borders. Such cross-border advertising is currently permissible in many countries, and requires concerted action at the international level for successful regulation (Hawkins, 2004). Nevertheless, data demonstrating that national TV stations were the most popular channels in Turkey justified their selection for the study.

At the same time, the inclusion only of company websites and their public social media accounts in the review of online marketing likely underestimates the amount of marketing to which children and adolescents are exposed. As demonstrated by the pilot study in Turkey, young people use a lot of digital platforms, which offer a wide range of content where marketing is typically embedded, behaviourally targeted and disseminated through peer networks. This study did not address the full range of digital platforms that young people visit and use, and could not quantify individual exposure. Indeed, devising a methodology for studying individual exposure presents many challenges to researchers, as discussed in a recent report from the WHO Regional Office for Europe (2016a). While the approach in this study advances understanding by examining the

extent of food marketing on company websites and related public social media, this fails to account for the contextualized or personalized marketing to which children are exposed via their own social media accounts. Thus, the picture presented is likely to be a conservative estimate of the digital marketing situation.

5. Recommendations

- Routine collection of data on TV and online marketing to children, using standardized protocols, is essential to monitor any changes in the marketing environment and the impact of the nutrient profiling criteria introduced in 2018.
- Better and more granular information is needed about children's viewing patterns (e.g. audiences) and their online behaviour.
- Research should explore, based on the findings of this study, whether existing policies and legislation on the marketing of food to children need amendment or expansion, notably by improving the definitions of marketing to children to include both online and offline media to which children are routinely exposed, including peak-time viewing periods and social media. International experience indicates that a legally binding approach is preferable.
- Consideration should be given to establishing a watershed for broadcast advertising to children, such as 21:00.

6. Conclusion

WHO (2012) recommends reducing children's exposure to all forms of marketing of HFSS foods and implementing controls on the persuasive techniques used. While Turkey has taken a number of positive steps, at present the combination of regulation and self-regulation in place in Turkey, both online and offline, appears not to be adequately closing loopholes for the promotion of HFSS foods to children. This study has widely documented HFSS food marketing using persuasive techniques in programming for or likely to appeal to children. In spite of broader initiatives such as the IFBA Turkey Pledge (Annex 1), the findings indicate that industry self-regulation has not resulted in meaningful improvements in food advertising to marketing to children in Turkey. The recent adoption of nutritional criteria based on the WHO NPM is an excellent step forward, and may go some way towards closing the loopholes this study has identified.

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Annex 1. Turkey Pledge

International Food And Beverages Alliance ("IFBA") – Turkey Pledge:

This Pledge is a commitment regarding our food and beverage advertising on TV, print and internet to children under the age of 12.

Signatory companies have already or will implement company-specific voluntary measures by the end of 2010 in order to meet this objective.

These voluntary measures are made by food and beverage companies in support of parental efforts to promote healthy lifestyles.

The current participating companies are:

Coca-Cola
Kraft
Mars
Nestlé
PepsiCo (Frito Lay and Pepsi)
Unilever

The above companies, representing a majority of the food and beverage advertising spend in Turkey, will implement their commitments no later than January 1st, 2011. In case of mergers or acquisitions, an adequate transition period will be allowed for the implementation of measures taken under this Pledge.

- No advertising of products to children under 12 years, except for products which fulfill 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 under 12 years" means advertising to media audiences with a minimum of 50% of children under 12 years.

- No communication related to products in primary schools (until 12 years old), except where specifically requested by, or agreed with, the school administration for educational purposes.

Companies may take more measures in line with their internal policies.

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 1st, 2011.

Istanbul, May 2010

Coca Cola	Mars	PepsiCo
Kraft	Nestle	Unilever

Uluslararası Gıda ve İçecek İttifakı ("IFBA") – Türkiye Taahhüdü:

Bu Taahhüt, Türkiye'de 12 yaşın altındaki çocuklara yönelik olarak televizyonda, yazılı basında ve internette yiyecek ve içecek reklamlarımıza ilişkin taahhüdümüzdür.

Taahhüdü imzalayan şirketler, bu amacı karşılamak için gerek en şirketin özgü gönüllü tedbirleri zaten uygulamaya koymuştu veya 2010 sonuna kadar uygulamaya koyacaktır.

Aşağıda istelenen yiyecek ve içecek şirketleri tarafından alınan bu gönüllü tedbirler, sağlıklı yaşam biçimlerinin yaygınlaştırılmasında ebeveynlerin çabalarına destek olmayı amaçlar.

Hali hazırda katılımcı şirketler şunlardır:

Coca Cola
Kraft
Mars
Nestlé
PepsiCo (Frito Lay ve Pepsi)
Unilever

Türkiye'deki yiyecek ve içecek reklam harcamalarının önemli bir bölümünü gerçekleştirilen yukarıdaki şirketler, taahhütlerini 1 Ocak 2011'den önce uygulamaya koyacaktır. Şirket birleşmeleri veya satın almaları durumunda, bu Taahhüt altında alınan tedbirlerin uygulamaya konması için şirketlere yeterli bir geçiş süresi tanınacaktır.

- Kabul edilmiş bilimsel kanıtlara ve/veya uygulanabilir sosyal ve uluslararası beslenme ikelenne dayanan belirli beslenme kriterlerini karşılayan ürünler dışında, 12 yaşın altındaki çocuklara ürün reklamları yapılmayacaktır. Bu bağlamda, "12 yaşın altındaki çocuklara reklam yapılması", en az 15:00'ün 12 yaşın altındaki çocukların oluşturduğu izleyicilere reklam yapılması anlamına gelir.
- Okul yönetimi tarafından eğitim amaçlarıyla özellikle talep edilenler veya kabul edilenler dışında, ilkokullarda (12 yaşa kadar) ürünlerle ilgili iletişim yapılmayacaktır.

Şirketler kendi iç politikaları dahilinde bu taahhüdüden ötesinde önlemler alabilir.

Taahhüt'ün imzalanmasının, taahhütleri şeffaf, açıklanabilir ve katılımcı bir yöne ilerletmesi gerekir. Taahhüdümüzün bağımız uygunluk izlenmesi televizyon, yazılı basın ve internet reklamlarını kapsayacaktır ve 1 Ocak 2011'de başlayacaktır.

Istanbul, Mayıs 2010

Coca-Cola
Gülşah F. Molinas
Kraft
WSTP
KONŞİGNEVİNAS ULŞEHİS
Mars
Hülya Akkan
Nestle
M. M. M.
HANKI-GURİŞH H. ASİC
PepsiCo
Eva B. B.
Unilever
B. Z. K. K.
B. Z. K. K.

Annex 2. Coding guidelines

TV coding guideline

Advertisements broadcast on TV8, Fox TV, Show TV, ATV, Star TV and/or Kanal D were watched. Peak times for watching were 08:00–10:00 and 16:00–20:00.

Researchers filled out the table below (Table A2.1) for food advertisements, with one line filled for each. For product websites, Internet coding was given, with all figures in 100-g units. Variables were filled in, in line with the codes in the table and required explanations were given below.

Table A2.1. Coding for TV advertisements

Variable	Item to check	Instructions
Total fat (g/100 g)	Energy and nutritional ingredient	If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly.
Saturated fat (g/100 g)	Energy and nutritional ingredient	If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly.
Total carbohydrates (CHO) (g/100 g)	Energy and nutritional ingredient	If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly. You can see this variable as carbohydrate, as well.
Total sugars (g/100 g)	Energy and nutritional ingredient	If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly. You can see this variable as carbohydrate, as well.
Added sugars	Energy and nutritional ingredient	Further, ingredients should be checked and if this variable exists in ingredients or “additional sugar” is written there, it should be coded as existing.
Non-sugar sweeteners	Energy and nutritional ingredient	Further, ingredients should be checked, as well. If substances such as aspartame, saccharine etc. exist, it should be coded as “1”.
Salt (g/100 g)	Energy and nutritional ingredient	If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly. (400mg Na/100gr=1 gr salt/100gr)
Energy (kcal/100 g)	Energy and nutritional ingredient	If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly.
Marketing	Marketing permitted according to WHO nutrient profile model (NPM)	It should be coded according to whichever group in coding page it is included.

If marketing is permitted according to the Regional Office NPM, the code was to be “0”; if it is not permitted, “1” should be coded. Coding was made according to information written in the column of the categories in the NPM.

Food products classified with codes of 1, 2, 3, 4a, 4c, 4d, 5 were not permitted to be marketed to children; neither were the products classified as follows:

- total fat over 2.5 g per 100 g, with “4b” coding;
- cola, lemonade, orangeade, sweetened beverages, water with added minerals, drinks with added sugar or sweetener, except for 100% fruit or vegetable juices and milk drinks, with “4d” coding;
- products with over 10 g total fat and 15 g total sugar per 100 g, with “6” coding;
- products with over 2.5 g total fat or saturated fat, 10 g sugar and 0.2 g salt per 100 g, with “7” coding;

- products with over 20 g total fat and 1.3 g salt per 100 g, with “8” coding;
- products with over 10 g total fat and 1 g salt per 100 g, or with more than 225 kcal per 100 g of the product, with “9” coding;
- products with over 20 g saturated fatty acid and 1.3 g salt per 100 g, with “10” coding;
- products with over 10 g total fatty acid and 1.2 g salt per 100 g, with “11” and “12” coding;
- products with over 20 g total fatty acid and 1.7 g salt per 100 g, with “14” coding;
- products with over 5 g total fatty acid, 10 g sugar, 1 g salt per 100 g, with “16” coding.

Products with “13” and “15” coding were permitted to be marked to children.

Table A2.2 shows how increased site engagement was measured.

Table A2.2. Measurement of increased site engagement

Variables	Instructions
Primary persuasive appeal	For the messages received by the audience from advertisement, there are codes in the coding page.
Dynamic audiovisual components	Are there basic descriptions for simple movements or speeches of characters and for other events, or are sophisticated graphs and dynamic visual components used in the advertisements to draw attention?
Brand equity characters	Are there any brand specific or brand-equity characters that can be considered as a reminder? For example, a brand has created a brand-specific character and this person is a reminder when he/she is seen by audience.
Licensed characters	Are there any brand-licensed characters or lines that can be used by only this brand but can be found in another place, as well? Examples can be seen in the pictures.
Celebrities	Is any celebrity used in the advertisement? This will be coded according to the type of celebrity.
Web address provided	Is website of the product or company displayed or subscribed during the advertisement?
Brand logo	Is any logo belonging to the product displayed on the screen during the advertisement?
Image of product or packaging	Is any image of package or product displayed during the advertisement?
Child or child-like character (other than brand equity/licensed character)	Are there any children or child-like characters in the advertisements (except for brand-specific characters or licensed characters)?
Premium offers	Are there any premium offers such as gift, collection, competitions, tokens or reductions to introduce the products?
Health claims	Are there any written or verbal health claims. Related codes are in the excel file such as low-fat products, good for heart health etc.
Physical activity depicted	Are there any physical activity depiction or description?
Disclaimers	Disclaimers such as “this product cannot replace with food” are in the coding page.
Primary target	Is there any primary target audience for the product? Target audience group codes are in the Excel file. ²

² All references to the Excel table refer to Boyland E, Jewel J, Breda J (2016) (Monitoring food marketing to children: a proposed tool for the WHO European Region, draft proposal. Copenhagen: WHO Regional Office for Europe).

Internet coding guideline

The international companies tracked were: Coca-Cola, PepsiCo, Unilever, Nestlé and Kraft, The local companies included were: Eti, Ülker, Torku, Pınar, Sütaş, Kinder, Bıryağ, Tariş, Filiz, Yörükoğlu, Tikveşli, Tukaş and Maret. This number was increased to 20 food companies. (Observation could be made in supermarkets.) researchers visited the homepages of these companies' websites and filled in an Excel table for five products of each company line by line (Table A2.3).

Table A2.3. variables examined on Internet sites

Variable	Instructions
Designated children's area (within 2 clicks of homepage)	When homepage is clicked twice, is there any designated area for children only?
Food product 1	
Brand name	What is the name of the food product?
Detailed description	Is there any detailed information about the food product such as stuffed with chocolate, covered with ..., etc.?
WHO NPM category	It should be coded according to whichever group in coding page is included.
Total fat (g/100 g)	Energy and nutritional ingredient should be checked. If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly.
Saturated fat (g/100 g)	Energy and nutritional ingredient should be checked. If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly.
Total CHO (g/100 g)	Energy and nutritional ingredient should be checked for the CHO. If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly. You can see this variable as carbohydrate, as well.
Total sugars (g/100 g)	Energy and nutritional ingredient should be checked for sugar. If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly. You can see this variable as carbohydrate, as well.
Added sugars	Energy and nutritional ingredient should be checked. Furthermore, ingredients should be checked and if this variable exists in ingredients or "additional sugar" is written there, it should be coded as existing.
Non-sugar sweeteners	Energy and nutritional ingredient should be checked. Furthermore, ingredients should be checked, as well. If substances such as aspartame, saccharine etc. exist, it should be coded as "1".
Salt (g/100 g)	Energy and nutritional ingredient should be checked. If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly. (400mg Na/100gr=1 gr salt/100gr)
Energy (kcal/100 g)	Energy and nutritional ingredient should be checked. If the figure is not given in 100 g, it should be calculated in 100 g and written accordingly.

If marketing is permitted according to the WHO NPM, the code "0" was used; if it is not permitted, the code "1" was used. Coding was made according to information written in column of the categories in the WHO NPM.

Products with codes of 1, 2, 3, 4a, 4c, 4d and 5 are not permitted to be marketed to children; neither are the products classified as follows:

- total fat over 2.5 g per 100 g, with "4b" coding;
- cola, lemonade, orangeade, sweetened beverages, water with added minerals, drinks with added sugar or sweetener, except for 100% fruit or vegetable juices and milk drinks, with "4d" coding;
- products with over 10 g total fat and 15 g total sugar per 100 g, with "6" coding;

- products with over 2.5 g total fat or saturated fat, 10 g sugar and 0.2 g salt per 100 g, with “7” coding;
- products with over 20 g total fat and 1.3 g salt per 100 g, with “8” coding;
- products with over 10 g total fat and 1 g salt per 100 g, or with more than 225 kcal per 100 g of the product, with “9” coding;
- products with over 20 g saturated fatty acid and 1.3 g salt per 100 g, with “10” coding;
- products with over 10 g total fatty acid and 1.2 g salt per 100 g, with “11” and “12” coding;
- products with over 20 g total fatty acid and 1.7 g salt per 100 g, with “14” coding;
- products with over 5 g total fatty acid, 10 g sugar, 1 g salt per 100 g, with “16” coding.

Products with “13” and “15” coding were permitted to be marketed to children.

Increased site engagement

Table A2.4 shows how increased site engagement was measured. This was done for five products of each company, one by one. An image of each observed page was made and coded, and it should be written in the Excel table.

Table A2.4. Increased site engagement

Variables	Subcategories	Definitions
Visual and auditory appeal	Primary persuasive appeal	What is the primary appealed message received by audience when page of the product is opened? There are related codes in the coding page.
	Dynamic audiovisual components	Are there basic descriptions for simple movements or speeches of characters and for other events? Or are sophisticated graphs and dynamic visual components used in the advertisements to draw attention?
Prompts for repeat visits and prolonged visits	Leader boards	Are there any leadership boards?
	Members' clubs	Are there any club memberships for the product?
	High-score rewards	Are there any high-score rewards?
	Point collection for universal product codes	Is it possible to get a gift by collecting points through codes for the product advertised?
Interactive elements	Activities such as collecting or drawing	Are there any activities such as collecting or drawing?
	Clickable e-buttons	Is clicking a button demanded in order to play a video or game?
	Surveys or polls	Are there any surveys or polls?
	User-generated content	Is there any content generated by user?
	Advergame(s)	Are there any advergames in advertisements?
Brand synergy	TV advertisements	Are there any TV advertisements?
	TV programmes, movies	Are there any TV programmes or movies?
	Brand owned YouTube channel	Is there a YouTube channel of the brand?
	Brand equity characters	Are there any brand-specific or brand-equity characters that can be considered as a reminder? For example, a brand has created a brand-specific character and this person is a reminder when he/she is seen by audience.
	Licensed characters	Are there any brand-licensed characters or lines that can be used by only this brand but can be found in another place, as well?
	Celebrity endorsers	Is there any support provided by celebrities or any advertisements?
In-game integration of branded elements	Brand logos	Are there logos belonging to the brand?
	Brand or product as game pieces	Is this brand or product a piece of the game?
	Product in background scenery	Is an image of the product seen in background of the webpage?
	Taglines featured in games	Are there featured taglines in games?
	Clicking or moving mouse over product	Is there any difference in the product with clicking or moving the mouse, such as zooming or minimization?
Life-scape branding	Branded downloadable materials including wallpapers	Are there any downloadable materials belonging to the brands such as wallpapers (for computer)?
	New/upcoming advertisements	Are there any new/upcoming advertisements?
Other	Other	

Increased awareness of the brand and website

This section was filled for each product, with an image of observed page. The factors examined were:

Direct prompts to forward/like/share with friends	Is there any link for like, forward or share button for the web site?
Links to social media platforms	Is there any link to social media platforms?
Sign up to newsletter	Is there any sign up button to newsletter for the product?

Influencing children's brand preferences and consumption norms

Questions addressed aspects of brand and product imagery:

Brand logos	Are there any brand logos?
Images of the product or packaging	Is there any image of the product or packaging?
Child or child-like character (other than brand equity/licensed character)	Are there any children or child-like characters on the web site (except for brand equity/licensed characters)?
Premium offers	Premium offers

Association of product with health or healthy diet

Questions addressed aspects of health-related imagery or messaging:

Health claims	Are there any written or verbal health claims? Related codes are in the Excel file, for example, for claims of low-fat products, good for heart health, etc.
Physical activity depicted	Is there any depiction or description of physical activity?
Disclaimers	Disclaimers such as "this product can't replace food" are in the coding page.

Engaging key demographic

Finally, question addressed the targeting of content:

Primary target	Is there any primary target audience of the product? Target audience group codes are in the Excel file.
Age-restrictions	Is there any age restriction for any visit to the website of the product?
Peer influencers (video bloggers)	Do peers have any influence? Is there tagging through creative methods such as blogs?

Annex 3. Reviewed webpages

URLs	Pages	
	N	%
http://cheetos.com.tr	1	0.9
http://torku.com.tr/tr	6	5.1
http://tr.mondelezinternational.com/brands-detail	4	3.4
http://www.activiaturkiye.com	1	0.9
http://www.algida.com.tr/magnum	1	0.9
http://www.aslanmax.com	1	0.9
http://www.becel.com.tr	1	0.9
http://www.calve.com.tr	1	0.9
http://www.cappy.com.tr/tr/home	1	0.9
http://www.coca-cola.com.tr	5	4.3
http://www.cornetto.com.tr	1	0.9
http://www.danino.com.tr/danino-hakkinda/danino-l	1	0.9
http://www.danissimoturkiye.com	1	0.9
http://www.danone.com.tr/tr/markalarimiz/danone_t	1	0.9
http://www.danonesutluatistirmalik.com	1	0.9
http://www.doritos.com.tr	1	0.9
http://www.eker.com.tr	6	5.1
http://www.etietieti.com	6	5.1
http://www.falim.com.tr	1	0.9
http://www.fanta.com.tr/tr/home	1	0.9
http://www.fusetea.com.tr/tr/home	1	0.9
http://www.kinder.com.tr	6	5.1
http://www.koska.com/tr	5	4.3
http://www.milka.com.tr	1	0.9
http://www.nesquik.com.tr	3	2.6
http://www.pastavilla.com.tr	5	4.3
http://www.pinar.com.tr	6	5.1
http://www.ruffles.com.tr	1	0.9
http://www.sarelle.com.tr	6	5.1
http://www.sprite.com.tr/tr/home/	1	0.9
http://www.tamek.com.tr	6	5.1
http://www.tat.com.tr	6	5.1
http://www.ulker.com.tr/tr	6	5.1
https://lays.com.tr	1	0.9
https://nestle-fitness.com/tr	2	1.7
https://solen.com.tr	6	5.1
https://www.haribo.com/tr	6	5.1
https://www.pepsi.com.tr	1	0.9
https://www.sutas.com.tr	6	5.1
Total	117	100.0

Annex 4. Names of the TV programmes watched, starting times and advertisements

Table A4.1. Programmes and advertisements

Programme names	Advertisements	
	N	%
Ajans Bugün	84	2.1
Ajans Gün içi	12	0.3
Ajans Haber	79	2.0
Akasya Durağı	67	1.7
Akşam Ajansı	64	1.6
Ana Haber	27	0.7
Arka Plan	8	0.2
Arka Sokaklar	52	1.3
Ask Ve Mavi	63	1.6
Aşki Memnu	62	1.6
Aşkim Günahımdır	34	0.9
ATV Ana Haber	20	0.5
ATV Gün Ortası	37	0.9
ATV Haber	26	0.7
ATV'de Hafta Sonu	91	2.3
Beni Affet	130	3.3
Bir Deli Sevda	41	1.0
Bir Sor	23	0.6
Bodrum Masalı	89	2.2
Bu Şehir Arkandan Gelcek	132	3.3
Bugün	32	0.8
Cesur Ve Güzel	40	1.0
Çilek Kokusu	73	1.8
Çocuktan Al Haberi	132	3.3
Çürük Elma	34	0.9
Dizi TV	36	0.9
Duymayan Kalmasın	64	1.6
Emin Çölaşan	54	1.4
Esra Erol	62	1.6
Eşkiya Dünyaya Hükümdar Olmaz	24	0.6
Evin Yolu	7	0.2
Evleneceksen Gel	120	3.0
Fazilet Hanım ve Kızları	103	2.6
Gelin Evi	120	3.0
Güllü Geliyor Güllü	33	0.8
Hababam Sınıfı	59	1.5

Programme names	Advertisements	
	N	%
Hayat Bazen Tatlıdır	41	1.0
Hayat Şarkısı	62	1.6
Istanbullu gelin	65	1.6
Kadraj	18	0.5
Kahvalti Haberleri	92	2.3
Kalbim Ege'de Kaldı	35	0.9
Kanal D Ana Haber	69	1.7
Kara Yazı	59	1.5
Karavan	99	2.5
Kendine İyi Bak	33	0.8
Kismetse Olur	117	3.0
Kim Milyoner Olmak İstiyor	47	1.2
Kur'an Ve Sünnet	39	1.0
Magazin D	83	2.1
Malkaçoğlu	66	1.7
Medya Dünyası	16	0.4
Mesut Yar Sunar	71	1.8
Müge Anlı ile Tatlı Sert	101	2.5
Nurselin Evi	32	0.8
Ölene Kadar	40	1.0
Özlem Denizmen'le Kadınca	71	1.8
Pazar Süprizi	96	2.4
Renkli sayfalar	25	0.6
Sabah Ajansı	31	0.8
Sahrapla Lezzetli Sofralar	28	0.7
Show Haber	56	1.4
Star Haber	19	0.5
Turgay Basyayla İle Lezzet Yolculuğu	66	1.7
Tülin Şahin'le Moda	36	0.9
Vahe İle Evdeki Mutluluk	34	0.9
Vatanım Sensin	28	0.7
Zahide Yetiş'le	64	1.6
Zuhal Topalla	89	2.2
Total	3962	100.0

Table A4.2. Programme start times and advertisements

Time	Advertisements	
	N	%
6:00	10	0.3
6:15	3	0.1
6:30	70	1.8
6:45	65	1.6
7:00	20	0.5
7:15	37	0.9
7:30	130	30.3
7:45	103	2.6
8:15	71	1.8
8:30	58	10.5
8:45	151	3.8
9:00	14	0.4
9:15	31	0.8
9:30	68	1.7
9:45	128	3.2
10:00	46	1.2
10:15	64	1.6
10:30	94	2.4
10:45	133	3.4
11:00	16	0.4
11:15	57	1.4
11:30	33	0.8
11:45	92	20.3
12:00	72	1.8
12:15	16	0.4
12:45	169	40.3
13:00	110	2.8
13:15	25	0.6
13:30	29	0.7
13:45	130	30.3

Time	Advertisements	
	N	%
14:00	98	20.5
14:15	26	0.7
14:45	59	10.5
15:00	130	30.3
15:15	39	1.0
15:30	35	0.9
15:45	129	30.3
16:00	139	30.5
16:15	25	0.6
16:45	58	10.5
17:00	196	40.9
17:30	33	0.8
17:45	60	10.5
18:00	61	10.5
18:15	19	0.5
18:30	96	2.4
18:45	140	30.5
19:20	25	0.6
19:30	99	20.5
19:45	87	2.2
20:00	50	10.3
20:15	28	0.7
20:30	76	10.9
20:45	46	1.2
21:00	66	1.7
21:15	14	0.4
21:30	23	0.6
21:45	60	10.5
Total	3962	100.0

Table A4.3. Time slots of advertisements

Time	Advertisements	
	N	%
06:00	13	0.3
06:30	135	3.4
07:00	57	1.4
07:30	233	5.9
08:00	71	1.8
08:30	209	5.3
09:00	81	2.0
09:30	160	4.0
10:00	82	2.1
10:30	255	6.4
11:00	73	1.8
11:30	125	3.2
12:00	88	2.2
12:30	169	4.3
13:00	135	3.4
13:30	159	4.0
14:00	124	3.1
14:30	59	1.5
15:00	169	4.3
15:30	164	4.1
16:00	165	4.2
16:30	58	1.5
17:00	195	4.9
17:30	93	2.3
18:00	80	2.0
18:30	236	6.0
19:30	211	5.3
20:00	78	2.0
20:30	122	3.1
21:00	80	2.0
21:30	83	2.1
Total	3962	100.0

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