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Evaluation of compliance with the Spanish Code of self-regulation of food and drinks advertising directed at children under the age of 12 years in Spain, 2012



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ABSTRACT

Objective: To evaluate compliance levels with the Spanish Code of self-regulation of food and drinks advertising directed at children under the age of 12 years (Publicidad, Actividad, Obesidad, Salud [PAOS] Code) in 2012; and compare these against the figures for 2008.

Study design: Cross-sectional study.

Methods: Television advertisements of food and drinks (AFD) were recorded over 7 days in 2012 (8am–midnight) of five Spanish channels popular to children. AFD were classified as core (nutrient-rich/low-calorie products), non-core (nutrient-poor/rich-calorie products) or miscellaneous. Compliance with each standard of the PAOS Code was evaluated. AFD were deemed to be fully compliant when it met all the standards.

Results: Two thousand five hundred and eighty-two AFDs came within the purview of the PAOS Code. Some of the standards that registered the highest levels of non-compliance were those regulating the suitability of the information presented (79.4%) and those prohibiting the use of characters popular with children (25%). Overall non-compliance with the Code was greater in 2012 than in 2008 (88.3% vs 49.3%). Non-compliance was highest for advertisements screened on children's/youth channels (92.3% vs. 81.5%; $P < 0.001$) and for those aired outside the enhanced protection time slot (89.3% vs. 86%; $P = 0.015$).

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Conclusions: Non-compliance with the PAOS Code is higher than for 2008. Given the lack of effectiveness of self-regulation, a statutory system should be adopted to ban AFD directed at minors, or at least restrict it to healthy products.

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Introduction

Childhood obesity is one of the major public health problems and concerns of this century. In developed countries, one in every four children suffers from overweight.¹ In Spain, this figure rises to one-third of all children, ranking it among the highest in Europe.^{1–3} Overweight children have a higher likelihood of suffering from obesity in adult age,⁴ which in turn increases the risk of developing chronic diseases and can reduce life expectancy by as much as eight years.^{5,6} Intervening in the appearance of obesity are genetic, familial, psychological and environmental factors of a complex multi-factorial aetiology, which affect diet, physical activity or both.

Overweight and obesity are in great measure preventable. A first step is to guarantee children's right of access to nutritionally appropriate, safe and nourishing foods.⁷ In this respect, the factors that influence the choice of foods in childhood are crucial, since food preferences are established in the early years of life.⁸ Food and drink advertising concentrated on products which are high in fat, sugar and/or salt (HFSS) and calories directly affects these preferences and the consumption patterns of children^{8–11} and is estimated to be responsible for 16%–40% of all childhood obesity.^{12–14} The main medium of exposure to advertising is television;¹⁴ in Spain, children aged 4–12 years watch a mean of 22 food and drink advertisements per day, which represented 25%–33% of all advertising on children's programmes in the period 2010–2012.^{15,16}

Restricting food advertising directed at children is one of the most cost-effective public health interventions.¹⁷ Self-regulation of food and drink advertising is the leading intervention strategy in this field, world-wide.⁸ Spain was one of the first countries to introduce self-regulation in the world, and one of the few (along with the United States, Australia, Canada, Germany and United Kingdom) that has published an independent scientific evaluation of the effectiveness of industry-led self-regulation.^{8,18}

In 2005, the Ministry of Health, along with the Spanish Federation of Food & Drink Industries and the association of the leading advertising agencies, news and advertising media tasked with managing the Spain's self-regulatory commercial communication system (AUTOCONTROL), approved the code of self-regulation of food advertising directed at children under the age of 12 years, prevention of obesity and health (Publicidad, Actividad, Obesidad, Salud [PAOS] Code for its acronym in Spanish). The PAOS Code, which is voluntary in nature and applies to food advertising messages disseminated via audiovisual and printed media, contains 25 ethical standards that regulate the marketing techniques used, but standards regulating the nutritional composition of the products

advertised (nutritional standards) are lacking.¹⁹ In 2009, public and private television channels subscribed to the PAOS Code. In 2012, the PAOS Code was renewed to include, among other things, internet advertising directed at children and teenagers under the age of 15 years.²⁰

The main aim of this study is to evaluate the compliance of television food advertising with the PAOS Code in 2012. In addition, it also sought to compare the results against those of a previous evaluation made in 2008, so as to ascertain to what extent the effectiveness of self-regulation might have changed over time.

Methods

Study design and sample

We conducted a cross-sectional study on television advertisements of food and drinks (AFD) directed at children in Spain. The sample was obtained by recording 7 days broadcasting (Monday to Sunday) by nation-wide specialist channels targeted at a child-youth population (Boing, Disney Channel and Neox) and two generalist channels with the highest child-audience ratings (Antena 3 and Telecinco).²¹ The broadcasts were recorded from January to April 2012, excluding vacation periods, during the 8 am to 12 midnight time slot. The 2010 Audiovisual Communication Act establishes a protected time slot for children and teenagers below 18 years of age (from 6 am to 10 pm), and an enhanced protected time slot for children below 13 years of age (from 8 am to 9 am and from 5 pm to 8 pm on weekdays, and from 9 am to 12 noon on weekends and public holidays).²² The 6 am–8 am time slot was not included in the study owing to the absence of a child audience, whereas the 10 pm to 12 midnight time slot was included because it corresponds to the last daily child-audience viewing peak in Spain.²³

Definition of advertisements targeting children

The PAOS Code only regulates food advertising directed at children under the age of 12 years. A food or beverage advertisement is considered to be within its purview at children when it meets any of the following criteria:¹⁹

- for the type of food product promoted: advertisements that objectively promote a food product (measured by Dym Panel, a market research company, or by Homescan, a consumer panel set up by Nielsen) aimed primarily at children under the age of 12 years;
- for the design of the advertising message: advertising designed in such a way that the content, language and/or

images are objectively appropriate, primarily for children under the age of 12 years; and

- for the way in which the advertising message is disseminated: advertising disseminated either in a medium or support aimed objectively (measured by Sofres, a specialist TV rating company) and primarily at children under the age of 12 years, or in a general communications medium (TV channels that broadcast programmes aimed both to adults and children, in contrast to those aimed exclusively to children) when inserted in time slots, programming blocks, sections or spaces directed at children under the age of 12 years or with an audience consisting primarily of children under 12 years.

Collection of study data and variables

AFD were classified into 29 food groups, and these were in turn grouped into three categories in accordance with the criteria used in previous studies on food advertising directed at children, namely: core (nutrient-rich, low-calorie products); non-core (HFSS products, i.e. high in fat, salt, sugars and/or energy); and miscellaneous.^{24,25} In any case where various food products appeared in the same AFD, the product that had the predominant presence or appeared first was coded; and in any case where the AFD showed only the brand name or logotype, the advertiser's most typical product was coded.

Trained research assistants collected the following data for each AFD broadcast, i.e. day of the week, TV channel, type of product (food/drink), food category (core, non-core, miscellaneous), time slot and duration. Where an AFD overlapped two time slots, we registered the slot containing the longest part of the commercial message. The three advertising formats registered were: commercial spot (standard advertisements), sponsorship (a food company pays for a television programme in return for advertising) and telepromotion (advertisements using the settings and characters of a television programme).

PAOS Code

The Code consists of 25 ethical standards grouped into the following sections:²⁰ principle of legality (advertising, regardless of its content, should conform to current legislation, the broadcasting medium or the format which that can adopt—standard 1); principle of loyalty (advertising should adhere to the requirements of good faith and good commercial practice—standard 2); product presentation (advertising should not give misleading information about product characteristics, and should not exploit children's credulity—standards 3, 4, 5, 6 and 7); product information (advertising should be appropriate in form and content for a child audience—standard 8); sales pressure (advertising should not urge children to obtain the product—standards 9, 10, 11 and 12); promotion by persons and programmes (advertising should avoid using famous persons who are popular with children—standards 13, 13.1, 13.2 and 14); identification of the advertisement (in the case of promotional offers, advertising should guarantee appropriate information for children—standard 15); comparative presentations (advertising in which the characteristics of a branded product

are compared against those of a competitor's product—standard 16); promotions, prize drawings, competitions and children's clubs (establishes the conditions that the advertisements must meet—standards 17, 18, 19 and 20); safety (standards 21 and 22); and, finally, nutritional education and information (advertising should not promote unhealthy dietary habits or lifestyles—standards 23, 24 and 25).

Based on the Federation of Regional Radio and Television Bodies and Free-to-Air Commercial Televisions voluntary endorsement of the PAOS Code, all television food advertising is subject to the Code's standards.²⁶

Evaluation of compliance with the PAOS Code

To evaluate compliance with the PAOS Code, we drew up a questionnaire with the code's standards and classified each AFD into one of three possible categories for each standard: 'compliant', 'non-compliant' or 'uncertain compliance'. In line with experience acquired in previous studies, 'uncertain compliance' was defined as any case where there was difficulty or lack of consensus in objectively evaluating compliance with a given standard.¹⁸ We did not evaluate compliance with the principles of legality and loyalty, since these are two standards which all television advertising in Spain must comply. To evaluate overall compliance with the Code, the 'compliant' and 'uncertain compliance' categories were pooled into a single 'compliant' category. AFD was deemed to be fully compliant with the PAOS Code, in any case where it met all of its ethical standards. In contrast, AFD that failed to comply with at least one of the ethical standards was deemed to be non-compliant.

Data analysis

The results were expressed in percentages of AFD, by reference to their characteristics, along with their 95% confidence intervals. For each ethical standard, we calculated the percentages of AFD which were compliant, non-compliant or uncertain compliant. Percentages of overall compliance with the Code were compared according to broadcasting characteristics and type of product advertised, using the chi-squared test or Fisher's exact test, with the statistical significance level set at $P < 0.05$. Finally, in the case of AFD that failed to comply with the Code, we calculated the number of unmet standards. All analyses were performed using the STATA 12.0 statistical software package.

Results

Across the study period, a total of 4212 AFD were identified. Of these, 2582 were directed at children below 12 years of age, and thus came within the purview of the PAOS Code. [Table 1](#) shows the characteristics of the AFD directed at children under 12 years of age in Spain in 2012: 65.6% were broadcast on school days and 32.8% in the enhanced-protection time slot for children; Neox was the channel with the highest AFD broadcasting frequency, with 28.4% of the total; 72.6% of all products advertised were foods and 64.1% of all products belonged to the non-core category (HFSS products). The most frequent advertising format was commercial spots, with 97.7% of AFD and a mean duration of 15.7 s.

Table 1 – Characteristics of advertisements of food and drinks (AFD) directed at children in Spain, 2012.

AFD characteristics	AFD		
	n	%	95% CI
Day of broadcast			
Weekday	1693	65.6	63.7–67.4
Weekend	889	34.4	32.6–36.3
Television network			
General interest (n = 954)			
Antena 3	503	19.5	18.0–21.1
Telecinco	451	17.5	16.0–19.0
Children and teenage interest (n = 1628)			
Boing	378	14.6	13.3–16.1
Disney channel	516	20.0	18.5–21.6
Neox	734	28.4	26.7–30.2
Type of product			
Food	1874	72.6	70.8–74.3
Drink	708	27.4	25.7–29.1
Food category			
Core	813	31.5	29.7–33.3
Non-core	1654	64.1	62.2–65.9
Miscellaneous	115	4.5	3.7–5.3
Advertising format			
Commercial spot	2523	97.7	97.1–98.2
Sponsorship	32	1.2	0.9–1.7
Telepromotion	27	1.1	0.7–1.5
Duration (sec)			
≤15.7	1348	53.3	51.3–55.2
>15.7	1179	46.7	44.7–48.6
Enhanced protection time slot^a			
Yes	846	32.8	31.0–34.6
No	1735	67.2	65.4–69.0
Total AFD	2582	100.0	

CI = confidence interval.
^a From 8 am to 9 am and 5 pm to 8 pm on weekdays, and 9 am to 12 noon on weekends and public holidays.

Table 2 shows the level of compliance with each ethical standard of the PAOS Code. The standards displaying the highest percentages of non-compliance were: standard 16, referring to the clarity of comparative presentations, with 95.3% of AFD; standard 8, referring to the level of suitability for minors in terms of the form (comprehensible language) and content of the product information, with 79.4% of AFD; standard 18, covering the clarity and simplicity of conditions of promotional offers, with 26% of AFD; and standard 13, covering the use of personalities popular with children, well-known or famous persons, with 25% of AFD. Of the 23 ethical standards that were evaluated individually, 12 were unfulfilled by less than 10% of AFD, 9 by 10%–30% of AFD and 2 were not compliant by more than two-thirds of AFD. Standard 18 was the one that registered the highest percentage of uncertain compliance (40.8%), with the remainder keeping below 10%. Standard 22, whereby children should not be encouraged to venture into unknown places or talk to strangers, was the only standard that was fully complied by all AFD.

Overall compliance with the PAOS Code was 11.8% of the 2582 AFD. Of the remaining 88.3% (n = 2279), 23% failed to comply with only one standard, though the most frequent phenomenon was the non-compliance with three standards (32%), followed by non-compliance of two standards (10.4%).

There were 53 AFD (2.3%) that failed to comply with 10 or more standards (Table 3).

Overall non-compliance with the PAOS Code was statistically significantly higher in the following cases: AFD aired on school days (90% vs 85%) and on children's/youth TV channels (92.3% vs 81.5%); those advertising drinks (96.2% vs 85.3%) and core products (97.8% vs 83.2% for non-core products); those disseminated in sponsorship or telepromotion format (100% vs 88% in commercial spot); those having a duration of 15.7 s or less (90.4% vs 86.4%); and those broadcast outside the enhanced-protection time slot (89.3% vs 86%) (Table 4).

Discussion

Close on nine out of ten advertisements of food and drinks failed to comply with one PAOS Code standard, and one-third were in breach of 3 standards simultaneously. The standards with the highest levels of non-compliance were those relating to the clarity and simplicity of the information presented in AFD, and those which prohibited the use of personalities popular with children, well-known or famous persons. Non-compliance with the PAOS Code was: highest on children's/youth channels, which were, in turn, those airing the highest frequency of AFD; and lowest for the enhanced-protection time slot and non-core products, though AFD non-compliance figures were in excess of 80% in all cases.

Evaluation of the PAOS Code in Spain across the period 2008–2012.

Comparison of our results to those yielded by a previous evaluation undertaken with the same methodology by a part of our research team showed that overall non-compliance with the PAOS Code had risen from almost 50% in 2008 to 88.2% in 2012.^{16,18} This increase was particularly noteworthy, in the case of both the enhanced-protection time slot, climbing from 43% to 86%, and drink advertisements, climbing from 42% to 96%. Furthermore, in sponsorship and telepromotions, in which non-compliance was already high (80%) in 2008, this rose to 100% in 2012. Individual examination of the ethical standards showed that non-compliance had increased in 16 standards, and particularly in standard 13, on the use of personalities popular with children, well-known or famous persons, in which non-compliance went from 5.4% in 2008 to 25% in 2012. By way of positive note, in both years, most of the Code's standards obtained high compliance levels, though this pattern weakened with time, with the number of standards showing over 85% compliance dropping from 18 in 2008 to 13 in 2012. Hence, seven years after the introduction of self-regulation in Spain, the use of techniques to increase the power of television food advertising directed at minors in Spain has intensified in all the dimensions analysed, in contravention of the recommendations of the World Health Organisation (WHO).²⁷ Moreover, the results of the most recent studies conducted in Spain using a similar approach are consistent with those of our study.^{18,28–30} One of these studies has also analysed the application of the Healthy Lifestyle Plan (HAVISA for its acronym in Spanish), an agreement entered into in 2013 between the Spanish Food Consumption,

Table 2 – Compliance with the PAOS Code's^a ethical standards by advertisements of food and drinks (AFD) directed at children in Spain, 2012.

Standard ^b	Compliant		Non-compliant		Uncertain compliance		Total AFD
	n	%	n	%	n	%	
Standard 3	2154	84.4	353	13.8	47	1.8	2554
Standard 4	2222	86.6	167	6.5	177	6.9	2566
Standard 5	2456	95.9	64	2.5	40	1.6	2560
Standard 6	1891	73.7	476	18.5	199	7.8	2566
Standard 7	2403	93.7	98	3.8	63	2.5	2564
Standard 8	186	16.0	924	79.4	53	4.6	1163
Standard 9	2295	89.4	210	8.2	61	2.4	2566
Standard 10	2039	79.9	461	18.1	51	2.0	2551
Standard 11	2306	89.9	60	2.3	200	7.8	2566
Standard 12	1926	90.0	214	10.0	0	0.0	2140
Standard 13 (13.1)	1805	70.6	638	25.0	113	4.4	2556
Standard 13 (13.2)	2081	81.4	429	16.8	47	1.8	2557
Standard 14	2196	98.8	27	1.2	0	0.0	2223
Standard 15	2475	98.8	30	1.2	0	0.0	2505
Standard 16	5	4.7	102	95.3	0	0.0	107
Standard 17	628	81.1	104	13.4	42	5.4	774
Standard 18	149	33.2	117	26.0	183	40.8	449
Standard 19	2	66.7	1	33.3	0	0.0	3
Standard 21	2172	99.6	3	0.1	7	0.3	2179
Standard 22	2507	97.7	0	0.0	59	2.3	2566
Standard 23	2534	98.8	25	1.0	6	0.2	2565
Standard 24	2.412	94.0	134	5.2	20	0.8	2566
Standard 25	2552	99.6	3	0.1	8	0.3	2563

The table does not show standard 20, because AFD evaluated did not present children's clubs.

^a The PAOS Code (Publicidad, Actividad, Obesidad, Salud) establishes standards for the self-regulation of food and drinks marketing aimed at children in Spain.

^b Brief description of standards: standard 3, not to give misleading information about product characteristics; standard 4, not to give misleading information about the benefits of a product; standard 5, not to attribute particular characteristics to a product when these characteristics are inherent to all similar products; standard 6, not to exploit children's credulity; standard 7, avoid presentations that may frighten children; standard 8, conditions to be met for additional product information; standard 9, not to directly call on or urge children to ask for the product and not to suggest that adults who buy the product are better; standard 10, no reward for obtaining the product; standard 11, not to convey the impression that buying the product means greater acceptance among friends or confers prestige, skills or other special qualities of the persons in the advertisement; standard 12, conditions to be met if price is mentioned; standard 13, not to exploit children's special trust in adults, parents, well-known persons; standard 13.1, on the participation of famous persons or characters who are particularly well known to children; standard 13.2, on the appearance of well-known or famous persons; standard 14, on the existence of telepromotions of foods and beverages in programmes aimed at children; standard 15, clear separation between advertising and programmes; standard 16, conditions of comparative presentations; standard 17, in cases of promotion, separation of the product advertised and the one promoted; standard 18, presentation of essential conditions in the case of promotional offers; standard 19, conditions to be met in the case of commercial prize draws; standard 20, conditions to be met in the case of children's clubs; standard 21, not to encourage dangerous or inappropriate use of the product; standard 22, not to encourage children to talk to strangers or venture into unknown places; standard 23, not to promote or present unhealthy eating habits or lifestyles; standard 24, not to present the product as a substitute for a meal; standard 25, not to underestimate the importance of healthy lifestyle habits.

Safety and Nutrition Agency (AECOSAN) and the Alimentum Foundation to include messages promoting healthy lifestyles in AFD directed at children: it reported that one out of every three of the signatories companies AFD failed to comply with the commitments undertaken in the agreement.²⁹

Self-regulation from a comparative international perspective

Many studies show that self-regulation systems do not suffice to protect children from exposure to HFSS AFD, whether in Spain^{18,28,31} or in other countries (United States, Canada, Australia, Mexico, Colombia and Chile).^{32–34} Sharma et al.³⁵ have proposed a series of standards to be met by the industry, to ensure proper self-regulation of food and drink

advertising. The aim is that the standards themselves as well as any evaluation of subsequent compliance would be based on transparent scientific criteria, and that such evaluation would be carried out by an independent body outside the industry, in contrast to what happens with the PAOS Code in Spain, where the task of compliance monitoring falls to AUTOCONTROL, an association to which both the Spanish Federation of Food & Drink Industries and the leading advertising and public relations agencies in the country belong.

Recent initiatives have sought to reinforce self-regulation with complementary state legislation or independent scientific protocols, but as noted above, neither complementary state regulation of viewing times nor messages to promote healthy lifestyles has proved effective. Reinforcement of self-

Table 3 – Frequency of the PAOS Code's^a ethical standards unfulfilled by advertisements of food and drinks (AFD) directed at children in Spain in 2012.

Number of unfulfilled standards	AFD	
	n	%
1	524	23.0
2	237	10.4
3	729	32.0
4	208	9.1
5	219	9.6
6	115	5.0
7	76	3.3
8	43	1.9
9	75	3.3
10	49	2.2
11	2	0.1
13	2	0.1
Total	2279	100.0

^a The PAOS Code (Publicidad, Actividad, Obesidad, Salud) establishes standards for the self-regulation of food and drinks marketing aimed at children in Spain.

regulation with respect to unhealthy foods and drinks has been another recent avenue of intervention at an international level, since the evidence goes to underscore the fact that the importance of the HFSS component in children's advertising is very high and is increasing.^{9,16,24,27,28,36,37}

Although the 2007 EU Pledge places restrictions on AFD about products with an undesirable nutrient profile being directed at children under the age of 12 years, it has only had a minor impact, despite the fact that in 2015 three-quarters of all advertisers subscribed to it.³⁸ Similarly, in the USA, the approval of independent federal protocols in 2011 did not succeed in improving the effectiveness of self-regulation.^{39,40} Furthermore, only four countries in Europe (Denmark, Ireland, United Kingdom and Norway) have an official nutrient profile model, despite the WHO's recent approval of a European Nutrient Profile Model and ensuing recommendation for it to be transposed to all Member States.⁴¹ The United Kingdom has used its nutrient profile model to bring in statutory regulation of food advertising directed at children, banning the airing of advertisements for products considered unhealthy.⁴²

Proposals for the future

In view of the negligible effectiveness of self-regulation, whether fully managed by the industry or reinforced by state regulation or independent scientific protocols, there are currently two ways forward in this field, adopted in recent years and as yet little evaluated. The second Lancet monograph on obesity, published in June 2015, proposes that future regulation in this field should follow the model successfully adopted for infant formula advertisements,⁴³ namely:

Table 4 – Overall compliance with the PAOS Code^a of advertisements of food and drinks (AFD) directed at children in Spain in 2012, according to AFD characteristics.

AFD characteristics	Overall compliance with the PAOS Code ^a				P-value ^b
	Yes		No		
	n	%	n	%	
Day of broadcast					<0.001
Weekday	170	10.0	1523	90.0	
Weekend	133	15.0	756	85.0	
Television network					<0.001
General interest	177	18.6	777	81.5	
Children and teenage interest	126	7.7	1502	92.3	
Type of product					<0.001
Food	276	14.7	1598	85.3	
Drink	27	3.8	681	96.2	
Food category					<0.001
Core	18	2.2	795	97.8	
Non-core	278	16.8	1376	83.2	
Miscellaneous	7	6.1	108	93.9	
Advertising format					0.001
Commercial spot	303	12.0	2220	88.0	
Sponsorship/telepromotion	0	0.0	59	100.0	
Duration (sec)					0.002
≤15.7	130	9.6	1218	90.4	
>15.7	160	13.6	1019	86.4	
Enhanced protection time slot^c					0.015
Yes	118	14.0	728	86.0	
No	185	10.7	1550	89.3	
Total AFD (N) = 2582	303	11.7	2279	88.3	

^a The PAOS Code (Publicidad, Actividad, Obesidad, Salud) establishes standards for the self-regulation of food and drinks marketing aimed at children in Spain. AFD was deemed to be fully compliant with the PAOS Code, in any case where it met all of its ethical standards.

^b Comparison of proportions was tested using the chi-squared test or Fisher's exact test.

^c From 8 am–9 am and 5 pm–8 pm on weekdays, and 9 am to 12 noon on weekends and public holidays.

approval of a single, international protocol based on scientific criteria, in a multi-platform model which groups together international bodies, national authorities and social organisations;⁶ transposition of the protocol into the domestic law of all countries; and governmental evaluation and, where applicable, penalisation. The second way forward, in view of the poor results yielded by reinforced self-regulation, is the implementation of stricter measures. For instance, Mexico, Canada (Quebec) and the United Kingdom have banned the broadcasting of television advertising of unhealthy food and drinks (HFSS foods) during time slots and in programmes directed at a child audience. Even so, few positive results have been obtained, at least in the United Kingdom, where minors continue to be exposed to a high percentage (56%) of HFSS foods in advertising aired in time slots and programmes not directed at a child audience.^{8,25} Countries such as Iceland, Sweden and Norway have stricter legislation, which prohibits all types of commercial communication directed at children under the age of 12 years.^{6,8,44} Currently, these countries have one of the lowest prevalences of childhood obesity in the world.⁴⁴

The principal limitation of our study lay in the presence of a certain component of subjectivity when it comes to evaluating some of the standards of the PAOS Code. To minimise this problem, whenever a doubt about a given standard arose, the principal investigator was consulted in search of a possible consensus. When a consensus could not be reached, however, we resorted to the ‘uncertain compliance’ category created for just this purpose, following the guidelines of our earlier evaluation.¹⁸ Furthermore, some of the standards with higher non-compliance levels involved the aspects that were easy to check objectively, such as the presence of well-known or famous persons in AFD. The second limitation resided in the possible lack of representativeness of the sample, since the broadcasts of minority-audience, pay-per-view and regional channels were not recorded. Nevertheless, this limitation would not seem relevant, given the inclusion of children’s favourite channels, the large sample size and the repetition of AFD on different television channels.

Conclusions

Television continues to be the leading medium for food and drink advertising around the world.²⁴ Its influence has been shown by many studies,^{8,45–48} and recent evaluations rate the reduction of exposure to child advertising as being one of the most cost-effective public health interventions.^{8,13,49} However, a recent policy overview has shown that current regulatory approaches to obesity prevention most prevalent in the EU and the USA, including those relative to marketing practices for unhealthy food, are generally limited in reach and scope.⁵⁰ Regulation of food advertising directed at children in Spain follows the mentioned pattern: is not only limited in scope, being unable to limit advertising of unhealthy foods, but shows a high level of non-compliance. The trend plotted by self-regulation in Spain across the period 2008–2012 is clearly negative, and the degree of compliance with the PAOS Code is extremely low in most of the dimensions analysed. Self-regulation has not shown itself to be an effective mechanism for control of exposure to food and drink advertising

directed at a child audience in Spain. It is essential to improve the regulation in this regard, whether by adopting a statutory system that uses a nutrient profile model to restrict exposure to unhealthy products, or by imposing a legal ban on any type of advertisements of food and drinks directed at minors.

Author statements

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Competing interests

None declared.

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