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REVIEW

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A content analysis of the aims, strategies, and effects of food and nonalcoholic drink advertising based on advertising industry case studies

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Abstract

Background: Placing limitations on advertising of food and nonalcoholic drinks to children is an effective strategy in addressing childhood obesity. The industry maintains that further restrictions are unnecessary.

Aims: To ascertain whether the advertising campaigns were successful according to the industry evaluations and more specifically the effects of marketing on children.

Materials & Methods: A total of 117 case studies (1980–2016) published by the advertising industry which evaluate the effects of advertising campaigns were reviewed. This industry data source had been previously used to analyze the effects of alcohol advertising campaigns. The nutrition profile of the products was assessed by applying the World Health Organisation Nutrition Profile model designed to restrict the marketing of foods and beverages to children.

Results: The food and drink industry advertising campaigns target specific consumers including children, use several persuasive marketing techniques (utilizing celebrities and gamification), often position unhealthy products as healthy, and lead to increased sales of the advertised product with good returns on investment. The health-related claims made, and aspects of the campaigns related to the marketing of the products to children are summarized.

Discussion: Our analysis of food and non-alcoholic drinks case studies aligns with similar analyses of tobacco and alcohol advertising

Conclusion: This analysis, based on internal industry data, presents important evidence on the effects of advertising on consumption-related outcomes and the mechanisms by which they are achieved.

KEYWORDS
advertising, drink, food, industry case studies, regulation, WHO nutrient profiling

1 | INTRODUCTION

The obesogenic food environment is implicated as a contributory causal factor of the worldwide obesity epidemic with the global shift in the food system toward ultra-processed foods high in sugars and saturated fat being a major driver.[1,2] Increases in ultra-processed food and drink volume sales per capita are positively associated with population-level body mass index (BMI) trajectories worldwide, with evidence supporting the link between food marketing and individual weight outcomes.[3,4]

One influence on people's food choices is marketing by the food and beverage industry, with people across the world living in media saturated environments.[5,6] A recent report found producers of the top 18 UK brands (largely crisps, confectionery, and sugary drinks) spent more than £143m (€160m; $190m) on advertising in 2016, about 27.5 times the £5.2m spent by the UK government's healthy eating campaign (Change4Life).[7]

The International Network for Food and Obesity/Non-communicable Diseases Research, Monitoring and Action Support (INFORMAS) defines the food environment as "the collective physical, economic, policy and sociocultural surroundings, opportunities and conditions that influence people's food and beverage choices and nutritional status."[8]

The Eatwell Guide to a healthy diet states that foods high in fat, sugar, and salt (HFSSS) are not part of a healthy diet and are considered unhealthy in the context of this study.[9] The food industry influences obesity-related dietary behaviors in children by promoting HFSS products using "persuasive marketing techniques, such as attractive product packing, toys, and emotional appeals to forge long-lasting relations with children and create brand loyalty in the short and long run."[10] Globally, children are exposed to a large volume of TV advertisements for unhealthy foods and beverages, despite the implementation of food industry codes of practice.[11] Children aged 2–14 years exposed to food advertising on TV and advergames consumed an average of 60.0 and 53.2 kcal, respectively, more than children exposed to non-food advertising.[12] The contribution of TV food advertising exposure to the prevalence of obesity among 6- to 11-year-old children is estimated as 16%–40% in the United States, 10%–28% in Australia and Italy, and 4%–18% in Great Britain, Sweden and the Netherlands, with moderately strong evidence to support the reduction of food promotion to children as an obesity prevention measure.[13,14]

A review on the effects of food advertising on adults reported a significant association with food choices while studies in children found that unhealthy dietary marketing leads to increased preference and intake of energy-dense, nutrition-poor (EDNP) food and beverages, even with short-term exposure.[15-18] Norman systematically examined the evidence on food marketing exposure and children's behavior, concluding that there was compelling evidence for a causal relationship between them, particularly for food preferences, choices, and short-term consumption among 3–12 year-olds.[19]

Restrictions have been placed on the marketing of food and drink to children in several countries, with evidence suggesting that statutory regulation is more effective than self-regulatory approaches.[20] Cost-effectiveness and multi-state life table modeling studies in Australia and the United Kingdom on the effects of restricting HFSS advertising on children suggest a reduction in energy intake, BMI, prevalence of overweight and obesity, as well as health-related costs.[21,22]

The UK government launched consultations on the extension of restrictions on advertising of HFSS products as part of its contribution to dealing with childhood obesity and more recently an obesity strategy for England in the context of the COVID-19 pandemic.[23-25] The effects of advertising are disputed by the industry stating that "*There is no scientific consensus that food advertising causes obesity*" and that *"Food advertising is, at most, a marginal factor in determining children's food choices."*[26] The Food and Drink Federation has raised objections to the UK government proposals on the grounds that they will have little impact on levels of obesity or sale of products stating that, "*the proposed extension to advertising restrictions which call for a restriction on advertising before 9pm on both TV and the internet is predicted to make a 2-calorie [daily] difference to children's intakes.*"[27]

A hitherto-untapped source of evidence on the impact of specific advertising campaigns on consumption has been identified and used it to show the effects of alcohol advertising on consumption-related outcomes, and mechanisms by which they achieve those effects.[28] This derives from a series of evaluative advertising industry case studies reporting on the effectiveness of advertising campaigns for food, alcohol, and nonalcoholic beverages as well as food outlets. A search was conducted for all Advertising Works series published by the Institute of Practitioners in Advertising up to March 2021 and 23 volumes published since 1980 were located; with no publications available beyond 2016. The case studies included in these volumes generally present the aims of the campaign, target audience, strategies employed and quantitative data on the outcomes of the advertising campaigns. Results of data analysis (usually Interrupted Time Series) are reported in some cases. Many of the early analyses use control groups or areas (by comparing regions with or without campaigns); some studies present evidence on dose-response effects and qualitative data (from focus groups). To our knowledge, these case studies have not been systematically examined outside the food and advertising industries. They therefore represent a key overlooked source of evidence on the effects of food and beverage advertising.

The main aims of the study were to describe the target audience; objectives and strategies used in the marketing campaigns for food, nonalcoholic beverages and fast-food outlets; the effects of advertising on awareness, penetration, sales, return on (marketing) investment (RO(M)I); and strategies used and effects on children.

2 | METHODS

2.1 | Study sample

A total of 117 case studies reporting on campaigns conducted between 1980 and 2014 related to food, nonalcoholic beverages, and

fast-food outlets published across 23 volumes of the Advertising Series were identified. There are no case studies available after 2016 in the public domain. The case studies report on the evaluations of advertising campaigns for products ranging from those used in cooking (e.g., margarine, cooking oil, and stock pots), breakfast cereals, milk, bread, cheese, ready-made meals (e.g., frozen pizza and jacket potato), chocolate, and drinks to fast-food outlets. Although the regulatory environment has changed since the 1980s, obesity was already a public health concern in the 1970s with the Health Education Council, a centralized nongovernmental body responsible for health education services, launching a campaign to increase public awareness of the health problems caused by overeating in 1978.[29] Furthermore, the impact of advertising on children's eating habits was being reported by the early 1980s.[30] These case studies have not been previously analyzed so it is important to include all of the data and examine the industry claim that advertising does not affect behavior (and indirectly, consumption). Moreover, this analysis focuses on the strategies and mechanisms of action of advertising campaigns rather than obesity *per se*.

2.2 | Data extraction

The information about the advertised products contained in the case studies was systematically assessed. The nutritional profile of foods and nonalcoholic beverages within each report was evaluated by applying the World Health Organisation (WHO) Regional Office for Europe nutrient profile (NP) model designed for the purpose of restricting the marketing of foods and beverages to children.[31]

The model classifies products into 16 food and 4 nonalcoholic beverage categories and designates them as "permitted" or "not permitted" to be advertised to children. Certain categories are not permitted regardless of their nutritional composition—including chocolate and confectionery, cakes and sweet biscuits, juices, and energy drinks. Conversely, unprocessed meat, fish, fresh/frozen fruit, and vegetables are permitted to be marketed without restriction. For other categories, threshold criteria per 100 g/mL for total fat, saturated fat, trans fat, total sugar, added sugar, non-sugar sweeteners, salt, and/or energy apply. Advertisements for coffee, tea, nutritional supplements, baby and toddler food, and food outlets are not covered by the WHO NP model. Nutritional information was obtained from producers; websites in the first instance, if not then the supermarkets stocking the products, and finally from food composition websites.

Additional data from each case study was extracted on the following variables where available: the volume of sales, year(s) of the marketing campaign, country; descriptive information on the nature of the food or beverage product, company, retailer, or outlet promoted (brand/company name and description); target audience, objectives of the campaign, strategy used (including promotional characters, such as company-owned characters or mascots, third-party licensed characters, entertainment, or sports celebrities); health-related claims made, advertising/media spend, return on investment (ROI/ROMI), awareness (index or proportion aware (%)), penetration (%), trial (%), additional volume sales (%), sales attributable to advertising (%), value/brand share, number of new customers, additional units, or weight (kg) sold. Awareness was reported either using the awareness index (a measure of advert quality representing the level of claimed recall of the advert) or change in proportion aware associated with the advertising campaign. Penetration represented a measure of the popularity of a product in terms of usage or purchase. Marketing to children was assessed according to whether a specific target audience was mentioned in the case study report which directly or implicitly included children using terms such as housewives, families, parents or mums with children, children and teenagers or age range including under 18-year-olds.

The aim was to ascertain whether the advertising campaigns were successful according to the industry evaluations and more specifically the effects of marketing on children. Data were manually extracted by reading through the case study reports. The case studies included in these analyses provide very different amounts of detail on the campaigns making it difficult to extract all the variables to the same extent from each case. Descriptive statistics (frequencies and percentages) are reported where appropriate. Trends over time and other analyses were not conducted as these case studies do not encompass all campaigns or a representative sample but only those published in the series—largely award-winning ones in recent years. Furthermore, the case studies do not always present the full raw data necessary for such calculations to be presented here.

3 | RESULTS

3.1 | Sample description

A total of 117 case studies on food, nonalcoholic beverages, and fast-food restaurants published 1980–2014 with the advertising campaigns covering a period between 1979 and 2016 (Table S1) were evaluated. These included 11 case studies that could not be assigned a permitted or not code (five food outlets, three tea/coffee, one baby meals, and two margarines no longer produced). Of the remaining campaigns, only about one in five of the products were currently permitted to be marketed to children according to the WHO NP model (Table 1). The majority of campaigns were based in the United Kingdom, although other countries were also represented, including Denmark, India, and Malaysia, while some had a global reach.

TABLE 1 Target audience according to whether currently permitted to be marketed to children or not

	Target audience: Children		
Marketing to children	No	Yes	Total
Permitted	14	13	27
Not permitted	51	33	84
Not applicable	5	1	6
Total	70	47	117

3.2 | Cost of campaigns

The companies spent varying amounts on the advertising campaigns ranging from several hundred thousand to several million pounds (e.g., £426,000 by Mattessons/Fridge Raiders in 2012, £187.2m over 4 years (2008–2011) by McDonald's). Several reports also mentioned the value of additional unpaid-for media coverage related to the advertising ranging from *"PR coverage worth £185,000"* (Branston baked beans, 2005) to *"total PR value of over £20m"* (Walkers crisps, 2008–2012).

3.3 | Target audience

About one in 10 campaigns mentioned targeting specific socioeconomic groups, for example,

> ABC1, 25 plus, single, male or female looking for new interesting quality tastes. They demand the best but are not precious or pompous about it. (Häagen-Dazs, 1990–1992)

> our core target for singles consumption—C1C2D men aged 25–34. (Walkers crisps, 2011)

A total of 47/117 (40.2%) reports mentioned a specific target audience which directly or implicitly included children (Table 1) using terms, such as housewives, families, parents, or mums with children, children, and teenagers or age range including under 18-year-olds; of these, 33 (70.2%) were not permitted to be marketed to children. Of the 84 products currently not permitted by WHO NP to be marketed to children, 33 (39.3%) targeted children.

> The decision to target the product primarily at children meant that the advertising message had to appeal to children, but without alienating mothers. (Campbell's canned meatballs, 1985–1987)

> We would only target kids in communications. We would position Real Fruit Winders as a genuinely cool snack that every ten-year-old in the playground wanted. To do this we would have to give kids ownership of the brand and not let mum in on the act. (Real Fruit Winders, 2001)

> to be socially acceptable to teens … to generate excitement in teenagers. (MILO cans, 2012)

> Targeting teens and infiltrating their world through our innovative gaming content was a commercial turning point and game-changer for Mattessons. (Fridge Raiders, 2016)

3.4 | Aims and objectives of advertising

The aims and objectives of the campaigns included: to clarify the benefits of the product (e.g., Actimel), demonstrate that a product can be used at different times of the year (e.g., Hellman's mayonnaise), in alternative ways (e.g., Worcester sauce—in cooking, Dairylea—beyond sandwiches), more frequently (e.g., Pot Noodles and Knorr stock cubes) or to encourage reappraisal of the commodity (e.g., Tizer and Maximuscle). Quite a few reports specified that an aim of the advertising campaign was to halt a recent decline in sales (e.g., Dairylea, Chocolate Orange, Fox's Rocky, and red meat). Several campaigns stated increasing awareness as one of the objectives, for example, of the launch of a new product (Quaker Harvest Chewy Bars), among non-users (Schloer), or by providing an opportunity to vote for some aspect of the product (naming of Coco Pops). A number of advertisers set out to either attract new and/or lapsed users (e.g., Kellogg's All-Bran, Pizza Hut, Marmite, Wedges, and Danone Activia), extend/increase penetration of the product (e.g., Schloer, Hellman's Mayonnaise, Campbell's meatballs, Tropicana orange juice, Knorr Stock Pot, Cadbury Milk Chocolate, Danone Activia, and Mattesons Fridge Raiders), or encourage trial (e.g., Krona margarine, Viennetta, Hellman's Mayonnaise, Alphabites, Quaker Harvest Chewy Bars, Campbell's meatballs, Knorr stock cubes, Warburton's bread, Gini, Peperami, Batchelors SuperNoodles, and Tizer). For example,

> stem the decline in frequency of people cooking meals with red meat at home. (Meat & Livestock Commission, 1994–1997)

> generate trial among non-drinkers and occasional purchasers (positioning Tizer as a complement to consumers' existing repertoires; increase awareness and drive a reappraisal of the Tizer brand among teenage boys (13–15 years). (Tizer, 2004)

Several advertisers specifically set out to position their product as wholesome, healthy, or nutritious, although some of them would currently not be permitted for marketing to children according to the WHO Nutrient Profiling model:

> To position Fudge as a wholesome confectionery item of a size ideal for giving to children; To convey to mothers the traditional and wholesome values of Fudge without detracting from children's potential interest in the brand. (Fudge, 1981–1983)

> To build an image for Dairylea as delicious, nutritious, creamy cheese made from natural ingredients, which children love. (Dairylea, 1981–1983)

Some campaigns specifically mentioned children in their aims/objectives:

> to communicate that Kia-Ora is the 'good orange squash' thereby convincing mothers that Kia-Ora is the squash their children will like; to establish Kia-Ora as the 'the squash I want' thus generating child request of Kia-Ora. (Kia-Ora, 1983–1986)

> Fox's launched a new campaign intended to increase sales among young children … First, we needed to engage with opinion-forming 8–11 year olds. (Fox's Rocky, 2003–2005)

A few brands explicitly stated that, while their aim was to expand the market, this was to be achieved by minimizing effects on existing products in their repertoire, for example:

> grow the Wedges brand in a way that didn't cannibalise chip sales … by either changing their usage from side of plate, or by finding a new audience for them …. (McCain Wedges, 2008–2010)

3.5 | Strategies used

The advertisers used various strategies to increase sales and consumption of the products. A total of 70 (59.8%) case studies reported using 1 or more of the 10 strategies mentioned by INFORMAS, for example, cartoons, a licensed character, amateur or famous sports person, other celebrity, an event (sports, festival, and historical), movie tie-in, children, or an award. Among the 84 advertisements for products where marketing to children is not currently permitted according to the NP model, 53 (63.1%) used a power of advertising strategy. The commonest strategy was the use of a non-sports celebrity, with the second being the use of children:

> The film was executed with simple and colourful animated graphics throughout, accompanied by a cheerful rhyming tune. The entire 30-second commercial played with rhymes upon the brand name so that 'Storybook' became an involving game—in a learning idiom familiar to children. (Coco Pops, 1981–1983)

> In summary, by giving kids cool new skills we hoped to create an insistence on Fruit Shoot amongst kids that would transfer to an insistence on Fruit Shoot amongst mums. This could be construed as pester power, but our intention was to find a way of creating insistence amongst kids that had genuine benefits for all concerned, even mums – we wanted to create 'positive pester power'. (Robinsons Fruit Shoot, 2009–2010)

Other regularly used strategies were the use of sports and sports people or cartoons:

> The six campaigns that were responsible for driving the increase in return on investment, each built on the previous idea, each including Gary Lineker TV ads, but each went much further in inviting mass participation. (Walkers Crisps, 2008–2012)

> 'Fedora' the first film for Kia-Ora, was written with the central idea of cartoon crows following a little boy and his 'dawg', desperate to get some Kia-Ora …. Children in particular became highly involved in the action and absorbed an incredible amount of detail from just one showing. The statement 'I'll be your dawg' became part of playground language by the end of the first year …. (Kia-Ora, 1983–1986)

> The creative idea was that Real Fruit Winders were an anarchic form of fruit—one that kids could eat, play with and use to communicate with each other. We created a world that this fruit would inhabit and that kids could interact with. This was the world of the Chewchat gang, a team of mutant fruit whose mischievous pranks centred round 'winding up' terrified fruit and squishing them into Real Fruit Winders … The Chewchat gang would converse in Chewchat, an iconic symbol language composed of 22 symbols … Collectable stampers connected the language back to the food …. (Real Fruit Winders, 2001)

Other strategies used included extending usage beyond traditional use or repositioning an item for everyday use rather than for special occasions:

> Nutella was seen as an indulgent snack, to be eaten on special occasions. This perception was particularly firmly held by mums and was limiting potential growth …. to position the product as an acceptable breakfast choice, creating a much more regular pattern of usage. (Nutella, 2007–2008)

Other campaigns used taste or quality descriptors:

> The creative idea was simple but perfect: cows as experts on great-tasting milk. Because Cravendale tastes so good, the cows want it back. … Showing cows stalking Cravendale buyers, intent on getting their milk back. (Cravendale milk, 1998–2003)

3.6 | Health-related claims made

Specific health-related claims were made in 34 reports, including mentioning health-related ingredients, nutrient content, or comparison (e.g., low fat), general health, functional (e.g., digestion), 23

(67.6%) are not currently permitted to be marketed to children. Examples include:

> The advertising suggested that the product is tasty and fun to eat, and implied, on a covert level, that meatballs have 'food value'. The idea succeeded in distancing meatballs from their gimmicky/junky image. (Campbell's canned meatballs, 1985–1987)

> The proposition: eating Olivio as part of an olive oil-rich Mediterranean style diet can help you enjoy a longer life. The advertising idea: characters who personify the brand proposition; old Mediterraneans living a stress-free, enjoyable, longer life. (Olivio, 1996–1997)

> The overall campaign set up Nutri-Grain as the best solution to a missed breakfast. Initially advertising focused on establishing this new proposition and introducing the food. Later bursts gave consumers additional reasons to believe the proposition—Nutri-Grain is low fat, fortified, has as much calcium as a quarter of a pint of milk and communicated product news to drive interest in the brand. (Nutri-Grain, 1997–1999)

> Health is cranberry's strongest motivator, but drinkers' belief in its health properties far surpasses the reality. Over the last ten years or so, news had spread of doctors' recommending cranberry as a cure for cystitis and a rumour about its 'special properties' had gathered momentum. … The advertising dramatized the proposition as the 'modern-day elixir' with something that mythical power transcends, namely science. (Ocean Spray, 2001)

> We developed a positive rallying cry to the women of Britain to love their tummies, with the phrase 'Give yourself some Tummy Loving Care', underpinned by the rousing classic, 'Gimme Some Lovin'. (Danone Activia, 2010)

3.7 | Outcomes reported by the industry evaluations

Many case studies reported an increase in awareness of the product either using the awareness index (a measure of ad quality representing the level of claimed recall of the advert) or change in proportion aware associated with the advertising campaign. For example, the advertising boosted awareness from 41% to 61% (Kia-Ora, 1983–1986) or awareness index increased from 8 to 18 (Walkers crisps 1997–2002). Several reports mentioned the change in penetration, a measure of the popularity of a product in terms of usage or purchase. For example, penetration rose from 15.1% to 23.5% (Philadelphia, 1985–95) or 40% increase (Peperami, 1993). The proportion of the target market who tried the product was reported by some, for example, "*increased teen trial from 50 to 67%*" (MILO cans, 2012). Advertising was reported as being successful with heavier consumers, in recruiting new/lapsed users, and increasing frequency of use:

> Thus Fudge had established itself in the mainstream of the market among heavy chocolate-bar eaters. (Fudge, 1981–1983)

> Specifically we have achieved the following: 1. Doubled the size of the brand while investing less in marketing; 2. Focused on attracting and keeping a high usage audience of competitive Sports Warriors. (Lucozade Sport, 2004–2007)

> We'll demonstrate how we in fact created an almost immediate shift in Nutella's brand image, using advertising to turn the brand through 180 degrees from being perceived as an 'infrequent treat' to a new, much more positive position as a 'breakfast food' … We attracted over one million new customers in just over a year, leading to dramatic increases in volume and value sales. (Nutella, 2007–2008)

This recruitment could start at a very early age:

> Fortunately for Marmite, there is another way to recruit new users. If mothers can be persuaded to feed their babies Marmite, then these children acquire a taste for Marmite, which frequently stays with them, on and of, for life. In fact, the vast majority of users (78%) are introduced to the brand as children. When these 'Marmite babies grow up and have their own children, they tend to feed them Marmite too. This in turn creates a new generation of loyal Marmite users, and the life cycle is perpetuated. (Marmite, 1975–1998)

> The brand's sales success was based largely on the classic model of increased penetration, with purchasers in the target age group of households with young children increasing twofold. (Coco Pops, 1999)

and, pass from older to younger siblings:

> The way in which older and younger children react to our advertising is broadly analogous with other markets in which products find favour initially with a group

> of 'early adopters' and then with the mainstream (e.g., fashion, 'rave culture'). This phenomenon seems bound up with the way trends are consumed, with groups of people continually striving to be on the leading edge. It also demonstrates the power of the craze, which once started, takes on a life of its own and passes, 'virus like' from one group of people to another (in our case from older to younger siblings). The craze dies out as people become 'immune' to it. (National Dairy Council, 1989–1993)

Some of the case reports included an assessment of the number of new users/households using the product, or the number/weight of product sold or proportion (%) of sales attributable to advertising. For example,

> Over the 37 periods since launch, it is estimated that 74 million bars, or 24% of our sales, came directly from advertising effects. (Nutri-Grain, 1997–1999)

> We have now experienced 24 consecutive quarters of growth, in stark relief to the stagnation of 2002–2006. And 2011 capped it all with an incredible 48 million more customers served versus 2010. (McDonald's 2008–2011)

Other reports mentioned effects on other products within the company's product range or more widely for the sector:

> The advertising not only increased sales dramatically for the variant being advertised, but also resulted in halo effects for the wider portfolio … It was desirable that any piece of advertising increased sales of all variants, not just the one being advertised. This effect is what we have termed the 'halo effect'. (Terry's Chocolate Orange, 1998–2000)

Several case reports also calculated a quantitative measure of the ROI of advertising, most ranged between about 1.3 and 3:1, though some were much higher, for example, 9.79:1 for McDonald's (2008–2011), $10.65 for Snickers (2014–2015), with Meat and Livestock Australia (2004) reporting the largest value of 72.1 (24c resulted in $17.30 return for each lamb sold).

Most of the evaluations concluded that advertising was the most important or key element responsible for the increase in sales:

> the increase in sales corresponded exactly with the airing of the TV ads. Moreover, regions with more advertising grew faster. Econometric analysis demonstrates that advertising was directly responsible for a significant uplift in sales. (Tropicana, 2005)

> It shows how advertising helped McDonald's achieve five successive record-breaking sales years since its turnaround. (McDonald's, 2008–2011)

3.8 | Aspects of the campaigns related to children

Some campaigns relied on children for their increased sales or were explicitly aimed at children. This was done through children's programs, digital platforms, and social media, for example,

> This was seen by many of the judges as a seminal paper in terms of the use of social media, and Facebook in particular, as a source of inspiration, creative content, and media deployment. This was a case that illustrates the power of brand fans and the impact that can be achieved through the harnessing of these ambassadors …. The 'For the love of Wispa' campaign asked fans to pledge their time, talent or belongings in exchange for chocolate, and then turned these into a TV advert. The social-media-led model helped Wispa become Britain's best-selling chocolate bar …. (Wispa 2007–2009)

> Digital was the lynchpin of the communications strategy for two reasons: its participative nature, and the number of kids already there …. So we created fruitshoot.com, a digital learning platform designed to help kids get stuck into skills. The platform featured video tutorials that delivered both inspiration and facilitation—or 'wow' + 'how'—of over 40 different skills, from diabolo to BMX. (Robinsons Fruit Shoot, 2009–2010)

Adverts often used emotional appeals such as nostalgia, humor, and playfulness, for example:

> Most importantly, Fudge was seen by mothers as a nostalgic reminder of the pleasure of eating chocolate bars in their own childhood. Thus our target market was defined as mothers with young children who would both buy Fudge for their children and eat themselves. (Fudge, 1981–1983)

> 'Rivals' very quickly became kids' favourite advertising. They thought it was hilarious. In groups, they would give us a perfect rendition of the ad, with every line and nuance of the accent correct, and then fall about laughing. 'Exactly' and 'Accrington Stanley, who are they?' became playground catchphrases. (National Dairy Council, 1989–1993)

Dairylea's Strip Cheese met children's desire for food that they can play with—the fun factor was at the forefront and the advertising reflected this …. (Dairylea, 1996–1999)

Others relied on recruiting children as the mechanism to drive sales:

> Children are known to be a notoriously fickle target group: 'faddish' about food, they can be strongly motivated to ask for a particular product through involving advertising …. Parents appeared more willing to provide cereals their children asked for—including relatively more expensive, 'pre-sweetened' brands. (Coco Pops, 1981–1983)

> What is also certain, is that not just 'any' advertising could have achieved this awareness, but only advertising of Peperami's quality with the originality, attitude and sheer intrusiveness to penetrate the hardest of consumers. … 75% of children ad aware played back detailed sequences from the ads. Kids in particular had an outstanding ability to quote verbatim from the Peperami character. … In fact, boys in particular were 28% more likely to want to eat Peperami post the advertising …. (Peperami, 1993)

> Communications worked by getting Real Fruit Winders onto kids' radars, by inviting them to participate, by creating the desired sense of 'cool' and driving trial, at a level far higher than expected. The campaign also helped Kellogg's brand to enter the world of kids in a way it had never done before, moving from home out into the tougher environment of the playground. (Real Fruit Winders, 2001)

Much of this has been accomplished despite regulations:

> The case clearly shows that creative and insightful content can work with traditional advertising to deliver real value for advertisers, and how those facing tight regulations can still work within them by employing new channels and smart thinking. (Robinsons Fruit Shoot, 2009–2010)

4 | DISCUSSION

Our findings demonstrate that food and nonalcoholic beverage industry advertising campaigns target specific consumers, including children, use several persuasive marketing techniques, often position unhealthy products as healthy, and lead to increased sales of the advertised product with good returns on investment.

Several campaigns used in the case studies reviewed here targeted specific socio-economic groups. Similarly, targeting has been reported in both Australia and United States within the last decade.[32-34] Across Sydney's metropolitan train network food and beverage advertisements are overwhelmingly for unhealthy products, particularly in low socioeconomic status areas.[32] About 30% of outdoor food advertising at Melbourne transit stops displayed food advertisements, with those in more disadvantaged suburbs less frequently promoting diet varieties of soft drinks and more frequently chain-brand fast food.[33] Subway-station adverts in the Bronx, NY, for "less-healthful" products were located disproportionately in areas home to vulnerable populations facing diet and diet-related-health challenges.[34]

About two in five of the campaigns in our study were targeted at children. Despite statutory regulation and self-regulatory pledges by food and beverage companies to not direct advertising to children under 6 years, the industry continues to place advertisements on children's programs, children continue to be exposed to advertising for food and drinks that are potentially harmful to health, with a significant volume of HFSS products advertised on media that they engage with most.[25,35-38] While some campaigns did not mention children, it was clear that they were the target as the audience was stated as families or parents, with the Advertising Association stating that "*most big companies' websites are aimed at parents, focus on healthy eating and concentrate on offering nutritional information and advice.*"[26] Parents are frequently targeted with emotional appeals and messaging related to nutrition and health in advertisements for children's packaged foods and beverages, with exposure to food advertising and TV viewing time being positively associated with children's requests for unhealthy food.[39,40]

Several apparently persuasive marketing strategies were employed in the campaigns analyzed in this study including taste, quality, fun, humor, familiar characters including celebrities, and instigating engagement. The use of such approaches is widespread in the United Kingdom, United States, and across the world, particularly for food of low nutritional quality.[36,41-44] Two recent systematic reviews reported that the most common persuasive techniques used on TV to promote food to children were the use of premium offers, promotional characters, nutrition and health-related claims, the theme of taste, and the emotional appeal of fun; while companies' mascots and entertainment companies' media characters were found to exert a powerful influence on children's food preferences, choices, and intake, especially for EDNP foods and induced brand attachment.[45-47]

Several of the campaigns reviewed here used health messages, including when advertising products not currently permitted to be marketed to children and promoting unhealthy items as healthy, although the industry states that they *"are committed to marketing their products in a responsible way."*[26] Kelly et al.[11] examined children's TV advertising exposure to healthy and unhealthy products in 22 countries between 2008 and 2017 using the WHO NP Model. They found that, on average, there were four times more advertisements for not permitted than for permitted foods and beverages; their

prevalence during peak viewing times being higher in countries with industry self-regulatory programs for responsible advertising compared with countries with no policies. Moreover, advertising during programs popular with children has shifted toward items that appear healthy but contain large amounts of hidden sugar, with health messages being increasingly prevalent and frequently used to promote unhealthy foods in adverts on UK TV, and the promotion of healthy lifestyle messages in child-directed advertisements for nutrient-poor foods and drinks benefiting brands by increasing their products' perceived healthiness.[48-50] A recent study in New Zealand showed that most children were unaware of the extent of their exposure to food marketing, were persuaded to purchase unhealthy food against their better judgment while wanting a reduction in junk food marketing and increased promotion of healthy food.[51]

While TV advertising was the main medium used in most of the case studies used in our analyses, more recent campaigns had shifted toward social media and the use of user-engagement. Others have reported similar results in Australia, and United States with detrimental effects on young people of the promotion of unhealthy commodities.[52-54]

There are striking similarities in the way the food, alcohol, and tobacco industries have responded to public mistrust, unfavorable scientific evidence, and calls for regulatory action. Our analysis of industry case studies aligns with similar analyses of tobacco and alcohol advertising.[28,55]

Food and drink companies and advertisers have issued statements declaring their concern with the public's well-being, and claiming that no further regulation is needed:

> Members of the Food and Drink Federation take their responsibility to tackle public health issues very seriously. Members are committed to playing a positive role in addressing these issues, particularly in relation to the rising obesity levels.[27]

> We have always supported the aim of tackling the problem of obesity in the UK but we have always made the case that the introduction of further restrictions on advertising will not help achieve that aim.[56]

One similarity between tobacco, alcohol, and food companies is the introduction and marketing of "safer" or "healthier" products. These products include those with reduced amounts of ingredients thought to cause harm (e.g., sugar, fat, salt, and alcohol) and products supplemented or fortified with ingredients purported to improve health (e.g., vitamins and minerals, oat bran, and whole grains). As with a number of food advertising campaigns analyzed in this study, the marketing of low(er) strength alcohol products used marketing messages that suggested additional consumption occasions with added implications for health.[55] The tobacco industry also marketed cigarettes on the basis of spurious health claims, and even marketed "health-image" cigarettes.[57] As with the food and drink industry, the tobacco industry emphasized personal responsibility, made self-regulatory pledges, lobbied against government action, introduced "safer" products, and marketed to children, arguing that this did not lead to smoking uptake. The food and drink industry differs from tobacco companies in important ways, but there "*are significant similarities in the actions that these industries have taken in response to concern that their products cause harm.*"[58] An examination of the strategies used by the US Sugar Association found that their overarching narrative was that restricting sugar, which it claimed was a valuable food that makes healthy foods more palatable, would cause harm but that this defense did not meet criteria for truthfulness or sincerity.[59] The nonalcoholic beverage industry uses similar tactics—lobbying policymakers and aiming to shift attention and blame away from sugar-sweetened beverages in the debate about obesity.[60] Tangcharoensathien reviewed aggressive market promotion and industry interference in government policies and classified them into four groups of tactics: "*(a) interfering with the legislative process; (b) using front groups to act on their behalf; (c) questioning the evidence of tobacco harm and the effectiveness of harm-reduction interventions; and (d) appearing responsible in the eyes of the public, journalists and policy-makers.*" Tobacco, alcohol, and unhealthy food and drink industries use similar tactics to aggressively interfere in policies.[61]

A major strength of this study is that we used a previously overlooked source of industry's own evidence on the impact of food and nonalcoholic beverage advertising on consumption. The findings are also consistent with findings of an analysis of alcohol industry advertising campaigns using the same source of industry data.[28] A key limitation is that these case studies are not a representative sample of advertising industry evaluations as the majority are based on award winning campaigns, and many are from the 1980s and 1990s. A limitation regarding advertising aimed at consumption by children is that our use of the WHO NP model is retrospective, and we cannot be certain that the product advertised would have been "permitted" or not at the time the advertising campaign was run. The formulation of the products may also have changed since the campaigns included here. Moreover, several of the reports are very brief, often just two pages, with insufficient detail provided to code all the variables studied here.

5 | CONCLUSIONS

There is an urgent need to consider obesity in a much wider context of common underlying societal and political drivers, including the commercial determinants of health with part of the solution being restrictions on marketing of HFSS and EDNP foods with our analyses showing the role that this plays in promoting unhealthy diets, especially to children. These findings provide additional evidence from within the food and nonalcoholic drinks industry to support calls for restrictions on advertising as a means of addressing obesity and its health implications in children and adults.

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CONFLICT OF INTEREST

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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