FUEL US DON'T FOOL US MANUFACTURERS

#1 Are food giants rigging the system against children’s health?
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FOREWORDS

I start most days wading through the flood of promotional discounts on junk foods in my inbox whilst having breakfast with my family. I pour myself a bowl of cereal labelled ‘high in fibre’ - although its equally high sugar levels aren’t so obnoxiously splashed across the packaging - and my younger sisters talk about which cartoon character on the box they prefer. On my way to school I leave the train station through gates with images of burgers stretched across them and board a bus with a chocolate advert plastered on its side. Once at school, a video of my favourite singer eating junk food interrupts my revision. Later, I see an Instagram post with a fitness guru holding a chocolate protein shake, assuring me it’s ‘good for your immune system’. I wonder why I struggle so much to eat healthily.

Before joining Bite Back I blamed myself, unable to see the insurmountable flood of junk we are submerged in. Junk food has become the cultural wallpaper, infiltrating our streets, sports and celebrations; and it’s endangering the health of my generation.

The good news is that it doesn’t have to be like this. Our report exposes just how deliberate and effective the tactics of these food giants are in manufacturing a food environment rigged against our health.

We have had enough of child health being sacrificed in the pursuit of profits. There is no longer any excuse to delay government and corporate action to protect it. It’s time for young people to bite back.

Science helps solve some of the world’s most pressing problems. But the epidemic of food related ill health, which grips our nation and starts in childhood, cannot be solved by science alone, it needs policy action. Medical advances to treat type-2 diabetes, heart disease and cancer are progressing fast and save thousands of lives every day, but how much better would it be if these diseases could be prevented? This is the challenge that society faces, and prevention of disease is essential if the NHS is to be affordable and sustainable. The food industry needs to become part of the solution, not remain part of the problem.

Of course we need a thriving food industry to keep us fed. But right now that system has too many businesses reliant on producing, marketing and selling more and more products that damage health, and doing so in a way that directly targets children and young adults.

The young people at the heart of Bite Back have rightly called time on an industry that they believe is maximising profit over their health. We all need to listen and put their voices and interests at the heart of political and business decision-making.

The evidence set out in this report highlights the need for action - from the food industry and from Government, to ensure businesses don’t shirk their responsibilities and continue to fail future generations of children.

Alice Mazòn, Bite Back Youth Activist

Sir Patrick Vallance
Former Government Chief Scientific Adviser
EXECUTIVE SUMMARY

Our food system is broken and young people are paying the price with their health. Children are growing up in a food environment awash with highly processed unhealthy food and drinks, with food giants targeting young children with cute cuddly marketing tactics and bombarding teenagers and young adults with predatory marketing tactics.

It’s become so normal that junk food is the cultural wallpaper in the lives of young people growing up in the UK. And it’s creating a preventable health crisis with over a third of 10/11 year olds facing an increased risk of food related illnesses in their futures.¹

The current food system is largely dominated by multinational food businesses, turning over billions every year. Food giants say they are part of the solution. But how far do their actions match their words?

We started by investigating the 10 biggest global food and drink businesses operating in the UK and looking at their sales of packaged food and drinks products. Read on for what we found...

**KEY FINDING 2**

The biggest food manufacturers are dominating digital advertising spend in food categories such as chocolate, crisps and ice cream.

A wealth of evidence now demonstrates the link between food advertising and the food and drink products children prefer, ask for and eat. Bite Back’s analysis of Nielsen Ad Intel advertising spend data found that in 2022, all food manufacturers in the UK spent £55 million on online adverts for food and drink products from four food categories that are associated with children’s excess sugar and calorie intake (biscuits, chocolate, crisps and ice cream). Seven of the top 10 food businesses were behind £50 million (91%) of this spend, resulting in 6.5 billion advertising exposures.

**KEY FINDING 3**

Seven of the top 10 businesses are using child-appealing tactics on packaging for unhealthy food.

Packaging is a powerful marketing tactic when it comes to children with cartoon characters, use of ‘fun’ images, bright colours and unusual names or shapes all effective strategies to target young children. We found that seven of the top 10 businesses are using child-appealing packaging for unhealthy foods. This includes cartoon characters, fun playful images and even products shaped like toys or animals.

**KEY FINDING 4**

Voluntary action by businesses to make their products healthier has had mixed results.

Food and drink manufacturers can reformulate the recipes of their products to make them healthier, for example by decreasing levels of fat, salt and sugar, and increasing levels of fibre. The UK Government’s voluntary sugar reduction programme challenged industry to achieve a 20% reduction in sales-weighted averages of sugar by 2020 (from a baseline of 2015), but overall progress was disappointing with the most limited progress in categories that have the highest volume of unhealthy sales.

**RECOMMENDATIONS**

Food businesses and the Government hold the levers of change and need to take action NOW if they want to be on the right side of history.

**ACTIONS FOR FOOD BUSINESSES:**

2. Address unhealthy marketing by phasing out advertising of products high in fat, sugar or salt and introducing clear and transparent labelling (including colour-coded front-of-pack labelling and removing health and nutrition claims on cartoon and brand equity characters on unhealthy products).
3. By 2024, set a 1.5°C aligned target verified by SBTi for all greenhouse gases and including scope 3 emissions, cutting emissions by 50% by 2030 and reaching net zero no later than 2050. Progress should be overseen by a named board member with responsibility for children’s health.

**ACTIONS FOR GOVERNMENT:**

Introduce regulatory approaches that will level the playing field for business and incentivise change. Mandate all businesses take responsibility for their impact on human and planetary health. Specifically, the Government must:

1. Fully implement legislation restricting the marketing of food and drinks high in fat, sugar or salt on TV, online and in retail environments and extend to other types of marketing including outdoor, brand advertising and sports sponsorships.
2. Bring in mandatory colour-coded front-of-pack labelling and stop the use of cartoon characters and other child-appealing tactics along with health and nutrition claims on the packaging for unhealthy food and drinks.
3. Mandate businesses to report publicly and consistently on sales of unhealthy food and drinks and sustainability metrics on a yearly basis.
4. Explore measures to incentivise healthier food and drink production beyond the Soft Drinks Industry Levy, including use of further financial levers.

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INTRODUCTION

Bite Back is a youth activist movement challenging a food system that has been set up to fool us all; a food system that relies on the production and marketing of nutrient poor, ultra processed food and drinks that are bad for our health and bad for planetary health.

The facts are stark:
1. The food children and young people eat is shaped by our food environment with nutritionally poor food highly available, more affordable and heavily marketed - with sugar, salt and overall energy consumption well above daily limits and fibre, fruit and vegetables well below guidelines. 

2. As a result well over a third of 10/11 year olds have an increased risk of food related illnesses in their futures. Tooth decay is the top reason for hospital admissions among young children.

3. The food system releases more greenhouse gases than any other sector apart from energy. Globally it is responsible for 25-30% of emissions.

The current food system is largely dominated by multinational food businesses, turning over billions every year, in some cases equivalent to the GDP of small countries. This places them in an economic environment where they need to continually grow their profits. This growth is largely achieved by the production, marketing and sales of highly profitable and highly processed packaged food and drinks, buying out other companies and resisting attempts at regulations which could harm their profits. This business model has created our current food environment, one which is awash with junk food, with food giants targeting young children with cute cuddly marketing and relentlessly bombarding teenagers and young adults with predatory marketing tactics.

It's become so normal that junk food is the cultural wallpaper in the lives of young people growing up in the UK. And it's creating a preventable health crisis.

As an epidemic of food related illness grips the world, food giants increasingly say they are part of the solution. But how far do their actions match their words? To find out, we worked with researchers at the University of Oxford to identify how reliant the top 10 food and drink manufacturers operating in the UK are on sales of unhealthy food and drinks. We also assessed their marketing strategies to review their contribution to online advertising spend and looked at their progress on sugar reduction against government targets.

"The other day I went to the supermarket and all of the aisles had been reorganised. It should be easy to find everything except it's not because when you walk down the cereal aisle, you look left and it is just a rainbow headache of cartoon sugar straight in your face.

Luke, 18"
PART I: HOW RELIANT ARE THE TOP 10 MANUFACTURERS ON UNHEALTHY FOOD AND DRINK SALES?

METHOD

This research provides a snapshot of the state of the food industry in the UK and the shape of the business model that is highly profitable for business, but tremendously costly to our health. We set out to review the sales of the biggest global food businesses operating in the UK and understand how much of their food and drink sales, and associated profits, come from unhealthy food and drinks, defined using the UK 2004/05 Nutrient Profiling Model (NPM) which identifies food and drink products high in fat, sugar or salt (HFSS). HFSS and unhealthy are used interchangeably in this report.

The sales analysis was conducted by researchers at the University of Oxford with support from Nesta.

- The top 10 global food and soft drink manufacturers based on sales of packaged food and drinks in the UK were identified based on Euromonitor global sales data for 2022. The following exclusions were applied: non-food products (e.g. home care and pet food), alcohol and low-alcohol products, tobacco, dried tea and coffee, infant formula, baby food and seasonal products.

- The nutrition information for each brand was identified using foodDB, a database of product information collected from 7 retailer websites in May 2022.

- The NPM was applied to each product. Foods that scored 4 or more and soft drinks that scored 1 or more were classified as HFSS or ‘unhealthy’. The proportion of each brand and company’s sales that are classed as HFSS, as defined by the UK NPM, were calculated.

- In total 241 brands and 5,298 products were included in the analysis.

- Sales data is based on Euromonitor’s methodology and is an estimate. For a full methodology see Appendix 1. Businesses may have reformulated some products in 2023. Where commentary on reformulation or other aspects of this report has been provided by the business this is outlined in Appendix 2.

The NPM was applied to each product. Foods that scored 4 or more and soft drinks that scored 1 or more were classified as HFSS or ‘unhealthy’. The proportion of each brand and company’s sales that are classed as HFSS, as defined by the UK NPM, were calculated.

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For the purposes of this research we have used the UK NPM to define products as unhealthy or healthier, due to the robust body of evidence showing a causation between excess sugar, salt and fat with food related illness. More recently, a growing body of consistent evidence has shown associations with ultra-processed food (UPF) and poor health. It is likely that a large proportion of product sales identified as HFSS and therefore unhealthy in this analysis will also be UPF. However further work is needed to understand what proportion of sales come from UPF products as products reformulated to become non-HFSS are likely to remain UPF.

15 Popkin B, Miles D, Tailie L et al. A Policy Approach to Identifying Food and Beverage Products that are Ultra Processed and High in Added Salt, Sugar and Saturated Fat. Available at SSRN: https://ssrn.com/abstract=4540298 or http://dx.doi.org/10.2139/ssrn.4540298

When I was younger my mum used to buy the breakfast biscuits that were promoted as healthy biscuits and I would always be like no thanks. As I got older and I wanted to find healthier alternatives I realised that actually these are not healthy as they have just as much sugar as a regular biscuit.

Amy, 17
This infographic was inspired by Oxfam's Behind the Brands campaign.
# Top 10 Food and Drink Manufacturers

We identified the top 10 food and drink manufacturers by looking at the global businesses with highest sales of packaged food and drinks in the UK.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Global HQ</th>
<th>Ownership</th>
<th>2022 Global Operating Profit</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>KRAFT HEINZ CO</td>
<td>Co-headquartered in Chicago, Illinois and Pittsburgh, Pennsylvania, USA</td>
<td>$3,634 million USD (£3,016 million)</td>
<td>We provide consumers and their families with products they know, love and trust. Quite simply, we help feed the world – and we do it deliciously. We intend to grow consistently. We will do it sustainably – delivering growth financially year over year, while also doing it the right way by caring for the environment and communities where we live and work.</td>
</tr>
<tr>
<td>2</td>
<td>COCA-COLA</td>
<td>Atlanta, Georgia, USA</td>
<td>$10,909 million USD (£9,054 million)</td>
<td>Our purpose is to refresh the world and make a difference. We are committed to offering people more of the drinks they want across a range of categories and sizes while driving sustainable solutions that build resilience into our business and create positive change for the planet.</td>
</tr>
<tr>
<td>3</td>
<td>DANONE</td>
<td>Paris, France</td>
<td>$2,143 million EUR (£1,886 million)</td>
<td>At Danone, we believe that each time we eat and drink, we can vote for the world we want. Because our eating and drinking choices have an impact on our own health and also the health of our society and the health of our planet. So at Danone we believe in building a healthier future through food.</td>
</tr>
<tr>
<td>4</td>
<td>KELLOGG CO</td>
<td>McLean, Virginia, USA</td>
<td>N/A</td>
<td>We are a global business of people and brands with a clear purpose. We believe the world we want tomorrow starts with how we do business today. Our vision is one where the planet is healthy, people and pets are thriving, and society is inclusive.</td>
</tr>
<tr>
<td>5</td>
<td>FERRERO &amp; RELATED PARTIES</td>
<td>Senningerberg, Luxembourg</td>
<td>Private, family-owned company</td>
<td>Generation after generation, our commitment to creating value forms the basis for crafting our much-loved products in an ethical and socially conscious manner.</td>
</tr>
<tr>
<td>6</td>
<td>DANO SAR</td>
<td>Private, family-owned company</td>
<td>N/A</td>
<td>Generation after generation, our commitment to creating value forms the basis for crafting our much-loved products in an ethical and socially conscious manner.</td>
</tr>
<tr>
<td>7</td>
<td>KELLANова</td>
<td>Kellanova is headquartered in Chicago, Illinois, USA</td>
<td>N/A</td>
<td>Both WK Kellogg Co and Kellanova are publicly traded companies</td>
</tr>
<tr>
<td>8</td>
<td>MARS INC</td>
<td>McLean, Virginia, USA</td>
<td>N/A</td>
<td>We are a global business of people and brands with a clear purpose. We believe the world we want tomorrow starts with how we do business today. Our vision is one where the planet is healthy, people and pets are thriving, and society is inclusive.</td>
</tr>
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<td>FERRERO</td>
<td>Senningerberg, Luxembourg</td>
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</tr>
</tbody>
</table>

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16 Operating profits in GBP were calculated using year-end exchange rates for 2022.  
17 https://www.coca-colacompany.com/about-us  
18 https://www.danone.com/impact.html  
21 https://www.kraftheinzcompany.com/purpose/visionvalues.html  
22 https://www.mars.com/sustainability-plan
So, companies claim not to target children under a certain age, but they have all these partnerships with all these different film companies that produce Minions and Paw Patrol. If you look at the demographic that Paw Patrol is aimed towards, it’s two to four years olds. They’re in breach of their own rules.

— Derin, 20
HOW RELIANT ARE THE TOP 10 BUSINESSES ON UNHEALTHY FOOD AND DRINK SALES?

Our research finds that the majority of global food businesses are reliant on selling unhealthy products in the UK. For seven of the ten businesses, we estimate that in 2022, more than two-thirds of their sales came from packaged food and drinks that are classed as HFSS and therefore unhealthy. Just two businesses in the top 10 take less than a third of their sales from HFSS products.

Ferrero and Mondelez have the unhealthiest portfolio with an estimated 100% and 98% of their sales coming from unhealthy products. Mondelez is also the business with the highest sales values from unhealthy food at £2.8 billion. Next are Unilever and Kellogg’s with 84% and 77% of sales from unhealthy products respectively. This is generally unsurprising as these companies’ portfolios and sales are dominated by foods typically high in sugar, fat or salt, such as confectionery, biscuits, crisps, breakfast cereals and ice cream - none of which are reflected in the Eatwell Guide as food groups that should make up a healthy and sustainable way of eating.

In addition, the biggest businesses are reliant on selling food and drinks that are generally not included in UK dietary guidance (see figure 3). The top five categories of food and drink products by sales value are chocolate, savoury snacks, reduced sugar soft drinks, regular soft drinks and ice cream - none of which are reflected in the Eatwell Guide as food groups that should make up a healthy and sustainable way of eating.

The figures and commentary are based on estimated sales in 2022 (see methodology in appendix 1). Product portfolios may have changed since then with new products added and other products withdrawn or reformulated. However the research provides a useful snapshot of the state of the food industry in the UK and the shape of the business model that is highly profitable for business, but tremendously costly to our health.

At the other end of the scale is Danone, with an estimated 2% of sales from unhealthy products, and Kraft Heinz and Coca-Cola with 33% and 36% respectively. These businesses have portfolios that are more weighted to products that don’t meet the HFSS threshold such as dairy products, bottled water, savoury products and lower sugar drinks.

Table 1: Summary of businesses’ UK sales from packaged food and drinks

<table>
<thead>
<tr>
<th>Business</th>
<th>Number of brands included in the analysis</th>
<th>Number of products included in the analysis</th>
<th>Total sales from packaged food and drinks (£mm)</th>
<th>Estimated value of sales from HFSS (£mm)</th>
<th>% of sales from HFSSw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrero &amp; related parties</td>
<td>19</td>
<td>347</td>
<td>921.6</td>
<td>919.3</td>
<td>100%</td>
</tr>
<tr>
<td>Mondelez International Inc</td>
<td>40</td>
<td>965</td>
<td>2877.3</td>
<td>2820.4</td>
<td>98%</td>
</tr>
<tr>
<td>Unilever Group</td>
<td>26</td>
<td>648</td>
<td>1487.4</td>
<td>1256.1</td>
<td>84%</td>
</tr>
<tr>
<td>Kellogg Co</td>
<td>14</td>
<td>149</td>
<td>1005.2</td>
<td>772.2</td>
<td>77%</td>
</tr>
<tr>
<td>Mars Inc</td>
<td>28</td>
<td>346</td>
<td>2013.1</td>
<td>1458.0</td>
<td>72%</td>
</tr>
<tr>
<td>Nestlé SA</td>
<td>41</td>
<td>641</td>
<td>1780.4</td>
<td>1252.1</td>
<td>70%</td>
</tr>
<tr>
<td>PepsiCo Inc</td>
<td>28</td>
<td>768</td>
<td>3062.5</td>
<td>2095.2</td>
<td>68%</td>
</tr>
<tr>
<td>Coca-Cola Co, The</td>
<td>23</td>
<td>530</td>
<td>3012.5</td>
<td>1066.6</td>
<td>36%</td>
</tr>
<tr>
<td>Kraft Heinz Co</td>
<td>10</td>
<td>515</td>
<td>1158.5</td>
<td>391.8</td>
<td>33%</td>
</tr>
<tr>
<td>Danone, Groupe</td>
<td>11</td>
<td>389</td>
<td>1146.0</td>
<td>27.4</td>
<td>2%</td>
</tr>
<tr>
<td>Totals</td>
<td>241</td>
<td>5,298</td>
<td>18,501.5</td>
<td>12,084.1</td>
<td>65%</td>
</tr>
</tbody>
</table>

27 Unhealthy is defined as high in fat, sugar or salt using the Nutrient Profiling Model. https://www.gov.uk/government/publications/the-nutrient-profiling-model. Excludes non-food products (e.g. home care and pet food), alcohol and low-alcohol products, tobacco, dried tea and coffee, infant formula, baby food and seasonal products.

Figure 2: Total packaged food and drink sales classified as ‘healthier’ and ‘unhealthy’ of top 10 categories (based on value sales)\textsuperscript{29}

<table>
<thead>
<tr>
<th>Category</th>
<th>Unhealthy</th>
<th>Healthier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate Confectionery</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Savoury Snacks</td>
<td>89%</td>
<td>11%</td>
</tr>
<tr>
<td>Reduced Sugar Carbonates</td>
<td>86%</td>
<td>14%</td>
</tr>
<tr>
<td>Regular Carbonates</td>
<td>6%</td>
<td>94%</td>
</tr>
<tr>
<td>Ice Cream</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Sauces, Dips And Condiments</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>Breakfast Cereals</td>
<td>4%</td>
<td>96%</td>
</tr>
<tr>
<td>Sweet Biscuits, Snack Bars And Fruit Snacks</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Bottled Water</td>
<td>1%</td>
<td>99%</td>
</tr>
<tr>
<td>Sugar Confectionery</td>
<td>89%</td>
<td>11%</td>
</tr>
</tbody>
</table>

2022 Value Sales (£mn)

<table>
<thead>
<tr>
<th>Category</th>
<th>Unhealthy</th>
<th>Healthier</th>
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</tr>
<tr>
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<td>99%</td>
</tr>
<tr>
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<td>89%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Figure 3: Value and proportion of unhealthy packaged food and drink sales by business

<table>
<thead>
<tr>
<th>Business</th>
<th>Unhealthy Sales (%)</th>
<th>Estimated Value of Sales from HFSS (£mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrero &amp; Related Parties</td>
<td>100%</td>
<td>36%</td>
</tr>
<tr>
<td>Mondelez International Inc.</td>
<td>98%</td>
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<td>33%</td>
<td>84%</td>
</tr>
<tr>
<td>Danone, Groupe</td>
<td>2%</td>
<td>81%</td>
</tr>
</tbody>
</table>

29 Unhealthy is defined as high in fat, sugar or salt using the Nutrient Profiling Model. https://www.gov.uk/government/publications/the-nutrient-profiling-model

30 Brand sales refer to packaged food and drinks based on 2022 Euromonitor data.

FOCUS ON TOP 10 BUSINESS PORTFOLIOS\textsuperscript{30}

Ferrero & Related Parties

Unhealthy sales: 100%

Top selling brands:
Fox’s Biscuits, Ferrero Rocher, Nutella Chocolate Spread

Ferrero has the largest proportion of unhealthy sales at 100%. This is unsurprising, given its portfolio is dominated by products typically very high in sugar such as chocolate confectionery.

Mondelez International Inc.

Unhealthy sales: 98%

Top selling brands:
Dairy Milk, Cadbury Chocolate, Maynard’s Bassets

Best known for Cadbury chocolate, Mondelez’s UK sales are dominated by the Dairy Milk brand. This, along with a portfolio full of chocolate, sweets and biscuits, means the business is overwhelmingly reliant on sales of unhealthy food. Mondelez has the highest value sales from unhealthy food and drinks of the 10 businesses at £2.8 billion.
Top selling brands: Magnum, Ben & Jerry's, Pot Noodle

While Unilever may not be a familiar brand to most, its two top selling brands - Magnum and Ben and Jerry's - will be. The business has a diverse food and drink portfolio with Pot Noodle, Hellman’s and Colman’s in their top five top selling brands, as well as other ice cream products (some of which were recently reformulated to be non-HFSS but not within the time scale of data collection for this report). But this diversity hasn’t led to a balance on health - with the vast majority of sales coming from unhealthy products.

Top selling brands: Galaxy, Maltesers, Extra

Mars is one of two privately owned businesses in the top 10 (along with Ferrero). In the UK it has two sides of the business - one focusing on confectionery the other on savoury products. The Uncle Ben’s brand and Extra chewing gum (third and fourth biggest selling brands), help balance out a sales portfolio which is otherwise full of confectionery including the two biggest selling brands, Galaxy and Maltesers. Sales revenue from unhealthy food and drinks was an estimated £1.4 billion in 2022.

Top selling brands: Pringles, Kellogg’s Crunchy Nut, Kellogg’s Corn Flakes

While it’s probably best known for breakfast cereals, Kellogg’s biggest selling brand by far is Pringles. While there are now some non-HFSS variants (launched at the end of 2022 so not included in this analysis), the large range and very high sales are likely to be driving Kellogg’s high proportion of unhealthy food sales. The next best selling brand is Crunchy Nut cereal - the majority of which is also classed as HFSS, followed by Corn Flakes and Coco Pops cereal which are non-HFSS.

Top selling brands: Kit Kat, Rowntrees, Buxton

The world’s biggest food business has a reasonably diverse portfolio. But when it comes to packaged food and drinks, over two thirds of sales are from products classed as unhealthy. Of its top selling five brands, four are chocolate or sweets with just Buxton Water providing some differentiation. Nestlé’s best-selling brand is Kit Kat with multiple variants of the product sold in the UK, all HFSS. Nestlé also sells powdered tea and coffee plus breast milk substitutes, all excluded from this analysis (see methodology for more details).

Top selling brands: Heinz (sauces), Heinz (beans), Heinz (soup)

As well as the ubiquitous sauces, beans and soups, which are Kraft Heinz’s top selling brands, the business also sells Philadelphia cheese products. Their largely savoury portfolio means the majority of sales come from products categorised as healthier, according to the nutrient profiling model. Kraft Heinz also sells breast milk substitutes, excluded from this analysis.

Top selling brands: Coca-Cola, Diet Coke, Coca-Cola Zero Sugar

Coca-Cola’s UK portfolio sales are dominated by their three hero carbonated soft drinks brands - Coca-Cola, Diet Coke and Coca-Cola Zero Sugar. The top-selling product Coca-Cola is HFSS, with 35g of sugar in one 330ml can. Overall their sales are skewed to non-HFSS products, due to the vast majority of their other drinks being lower in sugar, likely as a result of the soft drinks industry levy.
PART 2: HOW DO THE TOP 10 MANUFACTURERS MARKET THEIR PRODUCTS?

Food and drink companies spend millions on a range of marketing techniques designed to do one simple thing — ensure their products are centre stage in our minds. A wealth of evidence now demonstrates the link between food advertising and the food and drink products children prefer, ask for and eat. Analysis commissioned by the UK Government estimated that in 2017 children saw around 15 billion online adverts for HFSS products and 3.6 billion on TV. This is likely to be a considerable underestimate of how much unhealthy food and drink advertising children are actually exposed to, once other media formats like outdoor adverts and radio are accounted for. In addition, there has been a huge increase in all digital advertising spend between 2019-2022 (£15.69 bn vs £26.1bn respectively) which is likely to include an increased spend in food advertising.

**METHOD**

We analysed advertising data for 2022 from the Nielsen Ad Intel database to explore how much advertising was for products of food and drink from particular categories of concern to children’s diets produced by the top 10 businesses included in this report. Advertising spend for brands included in the sales portfolio analysis were identified and grouped by category. The contribution of the top 10 businesses’ collective advertising spend to total key category spend was calculated.

Advertising spend is estimated based on Nielsen Ad Intel costing methodologies, analysis was undertaken by members of the Bite Back team and reviewed by Nielsen Ad Intel. The data show category spend only and have not been assessed in terms of whether they are HFSS or not. For a full methodology and limitations see Appendix 1.

**RESULTS**

Bite Back’s analysis found that in 2022, all food manufacturers in the UK spent £55 million on online adverts for food and drink products from four food categories that are associated with children’s excess sugar and calorie intake. Seven of the top 10 food businesses were behind £30 million (91%) of this spend, resulting in 6.5 billion advertising exposures.

It’s clear that several of the top 10 food businesses together dominate the online advertising space across food categories that are associated with excess sugar and calorie intake in children. In the case of chocolate - which is by far the product category with the highest advertising spend at over £40 million - four businesses are responsible for nearly all the online advertising in 2022. Likewise, seven of the top 10 businesses dominate the advertising space for ice cream products, biscuits and savoury snacks.

Advertising drives product sales. The sheer volume of advertising expenditure, on products likely to be detrimental to children’s health, by big businesses shows the direct relationship between advertising and their enormous sales of unhealthy products. Businesses profit from this, as do advertising platforms. The losers are children, with a bombardment of junk food advertising endangering their health. To break this cycle businesses must stop advertising junk food and government regulation is needed to enforce this.

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34 Based on their inclusion in the Government’s calorie or sugar reduction programmes and/or their contribution to children’s sugar intake.

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**Figure 4: Estimated total digital advertising expenditure in key food categories in 2022**

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimated total digital advertising expenditure by all manufacturers</th>
<th>Proportion by Top 10 businesses</th>
<th>Estimated number of exposures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biscuits</td>
<td>£2,869,605</td>
<td>68% Ferrero, Mondelez and Mars</td>
<td>£2,869,605</td>
</tr>
<tr>
<td>Chocolates</td>
<td>£40,948,000</td>
<td>96% Nestlé, Mars, Mondelez, Ferrero</td>
<td>£40,948,000</td>
</tr>
<tr>
<td>Crisps / snacks</td>
<td>£9,300,538</td>
<td>78% Kellogg, PepsiCo, Mondelez</td>
<td>£9,300,538</td>
</tr>
<tr>
<td>Ice creams, lollies, sorbets</td>
<td>£1,971,071</td>
<td>88% Unilever, Nestlé, Mondelez</td>
<td>£1,971,071</td>
</tr>
<tr>
<td>Total</td>
<td>£255,089,214</td>
<td>91%</td>
<td>6,502,886,198</td>
</tr>
</tbody>
</table>

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£ Estimated total digital advertising expenditure by all manufacturers | Proportion by Top 10 businesses | Estimated number of exposures
TARGETING CHILDREN: HOW DO MANUFACTURERS TARGET CHILDREN WITH UNHEALTHY FOOD?

Attractive and appealing packaging of food and drink products is a core element of the marketing mix with research showing that it clearly influences decisions to buy. Packaging is a particularly powerful marketing tactic when it comes to children with use of cartoon characters, use of ‘fun’ images, bright colours, unusual names or shapes all effective strategies to target young children. No surprise then that research demonstrates that appealing packaging influences children’s taste and product preferences.

Across the world, the majority of food with child-appealing packaging tends to be nutrient poor and a UK survey found 51% of food and drink products that use cartoon animations on their packaging to appeal to children are high in fat, sugar or salt. Yet packaging is excluded from any existing UK regulations and codes designed to protect children from junk food marketing, which have an extremely narrow definition of advertising. This means businesses can say they don’t ‘target’ children while plastering their junk food with cute cuddly characters. We found that seven of the top 10 businesses are using child-appealing packaging for unhealthy foods (see figure 5). This includes cartoon characters, fun playful images and even products shaped like toys or animals. The products shown above are all defined as HFSS and would not be allowed to be advertised directly to children due to their poor nutritional status.

Figure 5: Examples of child appealing packaging

Products left to right: Ferrero & Related Parties Kinder Happy Hippo, Kinder Surprise | Mars Inc Milky Way Magic Stars, Skittles Squishy Clouds Chewy Sweets | Mondelez International Ltd Freddo, Barny Chocolate Soft Baked Bean Biscuits | Unilever Ben & Jerry’s Caramel Brownie, Party Ice Cream Tub | PepsiCo Inc Walkers Monster Munch Pickled Onion Craps, Fruit Bowls Yogurt Fruit Goals | Nestle SA Nesquik Choc Pots, Ocean Adventure Fruity Tropical Sorbet & Vanilla Ice Cream | Kellogg Co Kellogg’s Coco Pops Snack Bar, Kellogg’s Fruit Loops

“Companies aren’t putting cuddly bears on biscuits to make 40 year old adults want to buy them, that’s clearly a tactic used to market to children” — Mia, 17

Food and drink manufacturers can reformulate the recipes of their products to make them healthier, for example by decreasing levels of fat, salt and sugar, and increasing levels of fibre. Reformulation is an example of ‘health by stealth’ where changes are made gradually, without customers noticing. Two recent reviews have found that food reformulation has the potential to improve peoples’ health, as changes to recipes can contribute to improved diet and health outcomes.40,41

The UK Government has run two reformulation programmes targeting sugar:

1. The soft drinks industry levy (SDIL, also known as the ‘sugar tax’) came into force in 2018. It applies a tiered levy on drinks containing 5g of sugar per 100ml or more, with the aim of encouraging manufacturers to reformulate their high sugar products and avoid paying the levy. The policy shows how impactful regulatory measures can be; more than 47,000 tonnes of sugar has been removed from soft drinks since 201542, raising £334m in revenue in 2021–2243 and it has been associated with a reduction in incidence rates of hospital admissions for carious tooth extractions in children.44

2. The UK Government’s voluntary sugar reduction programme challenged industry to achieve a 20% reduction in sales-weighted averages of sugar by 2020 (from a baseline of 2015) in food categories that contribute most to children’s sugar intakes. The overall progress made by the food industry was disappointing with the industry achieving a 3.5% sales weight average reduction overall. This was against a 7.1% increase in overall tonnes of sugar sold in the same time period. Larger reductions were achieved for yoghurts and fromage frais (13.5%), and breakfast cereals (14.9%).

The table above shows progress the Top 10 companies made towards The UK Government’s sugar reduction target. Note that companies do not have products in all the categories relevant to the programme.
CONCLUSION

The data in this report help explain the high, and growing, incidence of food related illness among young people in the UK. The core business model of some of the largest and most successful global food companies operating in the UK is reliant on selling food and drinks that harm children’s and adults’ health. What surrounds us, shapes what we eat, so when the majority of products being produced are unhealthy the impact on our diets is inevitable.

In addition, a correlation between unhealthy sales portfolios and investment in marketing tactics, including ones that appeal to young children can be seen. The value of advertising expenditure, on categories of food and drink likely to be detrimental to children’s health, by big businesses shows the direct relationship between advertising and sales of unhealthy products. Businesses profit from this, as do media platforms and wider media business infrastructure. The losers are children, with a bombardment of junk food advertising endangering their health. To break this cycle businesses must stop advertising junk food and government regulation is needed to enforce this.

A continuous cycle of developing, marketing and selling processed products high in fat, sugar or salt is highly profitable for so many businesses, but is taking a massive toll on health, with nearly one in three children aged 2-15 now at risk of having their future blighted by food related illness.

It doesn’t have to be this way. Our data show that some food companies manage to be successful without relying on selling and marketing junk food. There is also growing evidence that companies that place more emphasis on social goals can outperform competitors over the long term, making a focus on health good for profits as well as people.46

But the fact that so many businesses are still locked in a business model of production, promotion and sales of overwhelmingly unhealthy products, despite numerous government health strategies and failed voluntary programmes shows that comprehensive action from inside businesses, along with government regulation, is needed to shift the food system onto one that is not fuelled by driving food related illness. Business and governments hold the levers of change. We now need action.

We have used the UK Nutrient Profiling Model to define products as unhealthy or healthier, due to the robust body of evidence showing a causation between excess sugar, salt and fat with food related illness47 and to reflect other studies.48,49 The 04/05 model was used although we note that it was reviewed in 2018 to reflect revised guidelines on free sugars and fibre, but is yet to be published. There is a growing body of consistent evidence showing associations with ultra-processed food (UPF) and poor health.50, 51 If an updated nutrient profiling model was used, or UPF status was to be included, it is likely a higher proportion of businesses sales portfolios would be defined as unhealthy.

The analysis excludes seasonal products (such as Easter Eggs, Christmas products etc) which are likely to be HFSS, so value sales are likely to be higher than reported here.

Both the product data from foodDB and the sales data from Euromonitor were from 2022 and therefore will not reflect new product launches, discontinuations or reformulation of products that have taken place since. Some products had incomplete nutrient information and assumptions were made based on similar products. Densities for each category were not available, and therefore 100ml was assumed to be 100g.

The sales analysis is based on Euromonitor data, rather than businesses’ own sales data. The advertising analysis is based on Nielsen Ad Intel data, rather than businesses’ own data. While Euromonitor and Nielsen Ad Intel are internationally recognised databases used industry-wide, we are not able to independently verify the accuracy of the data they provide.

LIMITATIONS

49 Bandy L, Jewell J, Luick M, et al. (2023) The development of a method for the global health community to assess the proportion of food and beverage companies’ sales that are derived from unhealthy foods. Global Health 19:94.
ACKNOWLEDGMENTS

The sales analysis research was undertaken by Dr Lauren Bandy, Alice O’Hagan and Jayalakshmi Vijayan, at the University of Oxford. Additional analysis to identify sales weighting for brands with multiple HFSS/non-HFSS product variants was undertaken by Isabel Stewart at Nesta.

The advertising and reformulation analyses and overall report writing was undertaken by Caroline Cerny, Nika Pajda and Hannah Sharpe at Bite Back.

Peer review was conducted by Dr Alison Tedstone and Katharine Jenner.

Please cite as: Bite Back (2024). Fuel us, don’t fool us: Are food giants rigging the system against children’s health? (Manufacturers).
APPENDIX 1: METHODOLOGY

Sales Analysis
The approach taken by researchers at the University of Oxford is based on a protocol used in peer reviewed published research\(^1\) and is similar to the approach taken by the Access to Nutrition Initiative (ATNI) for their product profile.\(^2\)

1 Identify top 10 manufacturers using sales data
The top 10 global food and soft drink manufacturers based on sales of packaged food and drinks in the UK were identified based on Euromonitor global sales data for 2022\(^4\). A list of brands for each manufacturer was produced based on Euromonitor sales data, and this list was verified by checking the company website.

Brands for Cereal Partners Worldwide were reassigned to global brand owner Nestle in this study. The following exclusions were applied: non-food products (e.g. home care and pet food), alcohol and low-alcohol products, tobacco, dried tea and coffee, infant formula, baby food and seasonal products.

In total 241 brands and 5,298 products were included in the analysis.

2 Identify nutrition information using foodDB\(^5\)
The nutrition information for each brand was identified using foodDB, a database of product information collected from 7 retailer websites in May 2022 (Asda, Iceland, Morrisons, Sainsbury’s, Tesco, Ocado, Waitrose), which was the most recently available data to researchers. By modifying existing code, products from foodDB were matched to the brands and companies identified in Step 1. Duplicate products were identified and removed based on exact matches for product name and calorie and salt content per 100g.

3 Applying the UK nutrient profile model
The UK FSA/Ofcom nutrient profile model (NPM)\(^6\) was applied to each product. Data given per 100ml was assumed to be equal to 100g, which we acknowledge as a limitation. Foods that scored 4 or more and soft drinks that scored 1 or more were classified as high in fat, sugar or salt (HFSS) or ‘unhealthy’. Work was done to identify % fruit, nut and vegetable (FNV) content of products in order to apply the NPM thresholds for FNV based on their category. 57 brands could not be matched with any product data. 22 brands (representing 9% of total value sales) were included based on the reasonable assumption that they were obviously either HFSS (ice cream, chocolate confectionery) or not (bottled water). 35 brands (representing 1% of total value sales) were excluded.

4 Identifying brands with multiple product variants
Brand-level sales data, as opposed to individual product-level sales data, was used in this project. It was assumed that the sales of each product variant was equal for brands where matched products were 100% or 0% HFSS (n = 199). Brands with multiple product variants that had different nutrition content (i.e. flavour variants) and different NPM scores were identified. 42 brands were identified - referred to here as ‘mixed brands’ and went through an additional verification process.

5 Mixed brand verification
Product and brand level data from the 42 mixed brands were shared with Data Scientists at Nesta\(^7\) to cross check sales weighting using a separate more detailed sales database which includes detailed product-level sales data. This allowed researchers to more accurately calculate what proportion of sales come from HFSS products rather than assuming that all products under the same brand had equal sales. Euromonitor brand names were matched to the products in the more detailed sales database based on the similarity of the product descriptions using a cosine similarity score. Extra manual steps were then added to ensure that the product names matched were from the same brand as the Euromonitor dataset. The final list of matched products were used to collect all remaining products from those brands in the new more detailed dataset. The proportion of sales from HFSS was then recalculated.

A manual comparison between the Euromonitor HFSS sales proportions and the recalculated sales proportions were carried out by the University of Oxford researchers and Data Scientists at Nesta. The total number of products matched to each brand and the proportion of HFSS sales were compared between the original and additional database. Each brand was discussed between the researchers and a decision by consensus whether to use the additional database was made for each brand.

Of the 42 mixed brands, the proportion of HFSS for 26 brands was recalculated using the additional database while 16 remain equally weighted.

6 Calculating proportion of sales
The proportion of each brand and company’s sales that are classed as HFSS, as defined by the UK NPM, were calculated.

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\(^2\) Bandy L, Jewell J, Luick M. et al. (2023) The development of a method for the global health community to assess the proportion of food and beverage companies’ sales that are derived from unhealthy foods. *Global Health* 19,94.

\(^3\) ATNI product profile: https://accesstonutrition.org/index/global-index-2018/product-profile/

\(^4\) Euromonitor International. https://www.euromonitor.com/


\(^7\) Nesta. The UK’s innovation agency for social good. https://www.nesta.org.uk/about-us/
Limitations

Densities for each category were not available, and therefore 100ml was assumed to be 100g.

Both the product data from foodDB and the sales data from Euromonitor were from 2022 and therefore will not reflect new product launches, discontinuations or reformulation of products that have taken place since.

While Euromonitor is an internationally recognised database that is used industry-wide, we are not able to independently verify the accuracy of the sales data they provided.

Advertising Analysis

Analysis was undertaken by members of the Bite Back team and reviewed by Nielsen Ad Intel.

1 Advertising data was accessed from the Nielsen Ad Intel database on 27.07.2023.

2 The data was downloaded on digital and social media spend covering January 1st to December 31st 2022 of particular food and drink categories of concern to children’s diets (based on their inclusion in the UK Government’s calorie or sugar reduction programmes and/or their contribution to children’s sugar intake).

3 The data was divided into retailers and manufacturers and analysed by ‘Product Category Minor’ field in the Nielsen Ad Intel database. This categorisation was done by Bite Back, as Nielsen Ad Intel does not define retailers and manufacturers.

4 Advertising spend for brands included in the sales portfolio analysis were identified and grouped for key categories. The contribution of the top 10 businesses’ collective advertising spend to total category spend was calculated.

5 The data is owned by Nielsen Ad Intel and the report has been checked and approved by their team. Advertising spend is estimated based on Nielsen Ad Intel costing methodologies

Limitations

Advertising spend is reported by category of concern to children’s diets. Adverts included may have featured HFSS and non-HFSS products.

Nielsen Ad Intel does not include Tik Tok, so online advertising spend will be underestimated.

Reformulation Analysis

Research was undertaken by members of the Bite Back team. Data on the top 10 businesses’ reformulation progress was collated from the Office for Health Improvement and Disparities 2022 report: Sugar reduction – industry progress 2015 to 2020.

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APPENDIX 2:
MANUFACTURER RESPONSES

The Top 10 businesses were given the opportunity to provide a written response to our research. The following were provided:

Danone, Groupe
Consumers are increasingly health conscious, but still want to enjoy the taste of the nutritious foods they buy. Reformulating products to meet these needs is challenging. But we have worked hard to make our portfolio healthier and have now made ambitious commitments to hold us to the high standards we have reached. Our commitment is that 90% of our dairy, beverages and plant-based products by sales volume will be non-HFSS*. We’ll also never again produce an HFSS product for children. Making these commitments means we will continue to develop innovative ways to make products both healthy and delicious, because it’s important that food businesses can grow healthily and sustainably.

* as defined by the UK Government’s current policy and legislation relating to HFSS

Nestlé SA
We are supportive of transparent reporting and welcome any efforts to help harmonise industry reporting. This report excludes the sales of over half of our products in scope of the UK Nutrient Profiling Model including coffee and coffee mixes which are more than 98% non-HFSS. We publish data regarding the status of our entire portfolio with HFSS products accounting for only 27% of our portfolio in 2022. The huge discrepancy between this report and our published data is due to a vastly different scope, diverse methodologies and inconsistencies in HFSS calculations and demonstrates the importance of a consistent approach to reporting.

PepsiCo Inc
PepsiCo UK has led the crisps and savoury snacks category for almost 20 years in developing healthier products without compromising on taste and quality. In 2022, we set a new ambition to make half our snacks sales come from healthier alternatives by 2025, targeting 30% to come from non-HFSS products and 20% from portions of 100 calories or less.* During 2023, we were over halfway to reaching this goal after only a year into an initial three-year investment of £35 million to drive product innovation and reformulation. Over 90% of the colas we sell are sugar-free versions and 99% of our Quaker portfolio is non-HFSS. We know there’s more to do and are working hard to shift even more of our sales to healthier alternatives.

* Not classified as high in fat, salt or sugar or from portions of 100 Calories or less per packet. This includes a small percentage of snacks that are exempt from the HFSS product placement restrictions that came into force in October 2022 even though they may not meet the definition under the 2004/2005 Nutrition Profile Model.

Unilever Group
At Unilever we have taken action to reduce the salt, sugar and calories in our products whilst keeping their great taste and have set stretching nutritional targets to accelerate our impact. We share Bite Back’s ambition for greater transparency and accountability in reporting and were the first company to assess and publicly report our portfolio against six government-endorsed Nutrient Profile Models (NPM). Bite Back’s analysis captures only 63% of Unilever’s UK portfolio (648 products across 26 brands). Using Unilever’s own published data, capturing 100% of our product portfolio (1031 products across 34 brands) as of 2022, 32% of our UK portfolio is non-HFSS.

No responses were provided by the following businesses:
- Coca-Cola Co, The
- Ferrero & related parties
- Kellogg Co
- Kraft Heinz Co
- Mars Inc
- Mondelez International Inc