A 'Watershed' Moment: Why it's Prime Time to Protect Children from Junk Food Adverts

Appendix 1: Method and Rationale

Programmes monitored

The aim of this study was to analyse the adverts shown before and during the most popular shows with children broadcast around 'family viewing time' of 6-9pm when the number of child viewers is at its highest.[1]

The programmes monitored were selected in consultation between Dr Emma Boyland and Obesity Health Alliance on the basis of their positioning as family programming (according to the channel's own information) and their popularity with children, based on Broadcasters Audience Research Board (BARB) and Ofcom data. Programmes were monitored from three commercial channels – ITV, Channel 4 and E4.

A rationale for the selection of each programme is provided below:

Programme	Pre-study rationale	Viewing figures (4-15 year olds)[2]
The Voice (1.5 hours per week, ITV, Saturday night, 8-9.30pm) Only adverts shown up to 9pm were included in the analysis.	This was chosen due to the previous series (shown on BBC1 in 2015) being the sixth most watched programme among children aged 4-15 in 2015.[1] ITV categorises The Voice's audience as 'broad' and 'young.' [3]	Week 1: 654,000 Week 2: 675,000 Week 3: 918,000 Week 4: 679,500 Average weekly viewing: 731,625
Ninja Warriors (1 hour per week, ITV, Saturday night, 7-8pm)	This was chosen due to the previous series being the 13th most watched programme among children aged 4-9 in 2015.[1] ITV categorises Ninja Warrior's audience as 'broad' and 'young.'[4]	Week 1: 705,000 Week 2: 590,000 Week 3: 721,000 Week 4: 766,000 Average weekly viewing: 695,500

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[1] Ofcom (2016) Children and parents: media use and attitudes report
https://www.ofcom.org.uk/__data/assets/pdf_file/0034/93976/Children-Parents-Media-Use-Attitudes-Report-2016.pdf
[2] BARB data was captured on a weekly basis from Thinkbox - http://www.thinkbox.tv/Research/Barb-data/Top-programmes-report?tag=Kids
[3] ITV Media https://www.itvmedia.co.uk/programmes/programme-planner/the-voice-uk

Programme	Pre-study rationale	Viewing figures (4-15 year olds)[2]
Coronation Street (1 hour per week, ITV, Friday night, 7.30-8pm and 8.30-9pm)	This was chosen due to the high volume of children watching the show in the weeks preceding the report.[2]	Week 1: 392,000 + 289,000 Week 2: 374,000 + 257,000 Week 3: 417,000 + 387,000 Week 4: 353,200 + 338,600 Average weekly viewing: 350,975
The Simpsons (30 mins per week, CH4, Friday night, 6-6.30pm)	This show was chosen as it was the most popular show watched by children on this channel in the weeks preceding the report.[2]	Week 1: 260,000 Week 2: 222,000 Week 3: 273,000 Week 4: 202,500 Average weekly viewing: 239,375
Hollyoaks (30 mins per week, E4, Friday night, 7-7.30pm)	This show was chosen as it was the most popular show watched by children on this channel in the weeks preceding the report.[2]	Week 1: 188,000 Week 2: 149,000[a] Week 3: 147,000[b] Week 4: 76,900 Average weekly viewing: 140,225

[a] Figures are for episode shown on 30/01 as viewing figures on 03/02 were not sufficiently high to appear in top 50 list published by Thinkbox.
[b] Figures are for episode shown on 08/02 as viewing figures on 10/02 were not sufficiently high to appear in top 50 list published by Thinkbox.

Viewing Figures

Viewing figures for the programmes monitored is BARB data collected weekly from the 'Top Programmes Report' published on a weekly rolling basis on the Thinkbox website. This can only be accessed for one week at a time. The figures used in the report have not been verified by BARB.

Viewing figures refer to total audience which is the consolidated viewing audience for the programme. This is the sum of the following viewers:
- Live: the audience who watched the programme at the time of transmission.
- Viewing-On-Same-Day-As-Live. The audience watching a recorded episode of the programme that has been viewed on the same day as the original broadcast.

[4] ITV Media. https://www.itvmedia.co.uk/programmes/programme-planner/ninja-warrior-uk

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- Time-Shifted: the playback audience to a video or DTR recording (e.g. Sky+) of a programme. Playback occurs within 2 to 7 days of the original broadcast to be counted.

Study Period

Monitoring took place during the weekends of January and February 2017 and was carried out by Dr Emma Boyland at the University of Liverpool.

Weekend broadcasts of these programmes were chosen because Ofcom data demonstrates that children watch more television on weekend (non-school) nights than during the week.[1] A full breakdown of the recordings is given below:

Programme	Channel	Week 1	Week 2	Week 3	Week 4
The Voice	ITV	28.1.17 8-9.30pm	4.2.17 8-9.30pm	11.2.17 8-9.30pm	18.2.17 8-9.30pm
Ninja Warriors	ITV	28.1.17 7-8pm	4.2.17 7-8pm	11.2.17 7-8pm	18.2.17 7-8pm
Coronation Street (2 episodes)	ITV	27.1.17 7.30-8pm 8.30-9pm	3.2.17 7.30-8pm 8.30-9pm	10.2.17 7.30-8pm 8.30-9pm	17.2.17 7.30-8pm 8.30-9pm
The Simpsons	Channel 4	27.1.17 6-6.30pm	3.2.17 6-6.30pm	10.2.17 6-6.30pm	17.2.17 6-6.30pm
Hollyoaks	E4	27.1.17 7-7.30pm	3.2.17 7-7.30pm	10.2.17 7-7.30pm	17.2.17 7-7.30pm

This resulted in a sample of 18 hours of television in total. Any programming shown after 9pm was excluded from the analysis. This resulted in a 16 hour study period. Advertising preceding and during each of the programmes stated above was included in this study.

Programme sponsorship slots were included in the analysis as Ofcom regulations include a ban on sponsorship in the name of HFSS products in programmes made for children or likely to be of particular appeal to them.[5]

Coding framework

Advertisements were coded using an adapted version of the protocol used in previously published studies.[6,7]

[5] https://www.ofcom.org.uk/cymru/research-and-data/tv-radio-and-on-demand/broadcast-advertising/hfss-final-review
[6] Boyland EJ et al (2011). The extent of food advertising to children on UK television in 2008. *International Journal of Pediatric Obesity.*
[7] Kelly B et al. (2010). Television food advertising to children: a global perspective. *American Journal of Public Health.*

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The following information was collected for all advertisements:

- Channel (e.g. ITV)
- Date of recording
- Day of recording
- Programme the advertisement was preceding or within
- Programme start time
- Timeslot of the advertisement (in 30 minute segments)
- Advertised product type (e.g. food/drink, motoring, financial)

If the advertisement was for a food or drink, then the following information was also collected and calculated:

- Brand name (e.g. Kellogg's)
- Product name (e.g. CocoPops)
- Health status of food or beverage product
    - Healthy / less healthy (in accordance with UK Nutrient Profile Model (NPM) used to govern which products can and cannot be advertised during programmes of particular appeal to children 4-15 years).[8]
- Persuasive content of advertisements
    - Use of giveaways or competitions (including price deals).

Food and drink adverts categorisation

Food and drinks adverts were categorised as one of 28 categories shown below based on a coding manual used in previously published studies.[9,10] The coding was carried out by Dr Emma Boyland.

If more than one food or drink product was shown in an advertisement, the one that is the most dominant or prominent was coded. If equal attention is given to different products, the product that is shown first was selected for coding. This is in line with previous studies.

1. Breads (include high fibre, low fat crackers), rice, pasta and noodles
2. Low sugar and high fibre breakfast cereals (<20g/100g sugar and >5g/100g dietary fibre)
3. Fruits and fruit products without added sugar
4. Vegetables and vegetable products without added sugar
5. Low fat/reduced fat milk, yoghurt, custard (<3g/100g fat) and cheese (<15g/100g fat; includes 50% reduced fat cheddar, ricotta and cottage) and their alternatives (E.g. soy) (including probiotic drinks)

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[8] Department of Health (2011). The Nutrient Profiling Model.
https://www.gov.uk/government/publications/the-nutrient-profiling-model
[9] Boyland EJ et al (2011). The extent of food advertising to children on UK television in 2008. *International Journal of Pediatric Obesity.*
[10] Kelly B et al. (2010). Television food advertising to children: a global perspective. *American Journal of Public Health.*

6. Meat and meat alternatives (not crumbed or battered) (includes fish, legumes, eggs and nuts and nut products, including peanut butter and excluding sugar coated or salted nuts)

7. Core foods combined (including frozen meals (<10g/serve fat), soups (<2g/100g fat, excludes dehydrated), sandwiches, mixed salads and low fat savoury sauces (<10g/100g fat; includes pasta simmer sauces)

8. Baby foods (excluding milk formulae)

9. Bottled water (including mineral and soda water)

10. High sugar and/or low fibre breakfast cereals (>20g/100g or <5g/100g dietary fibre)

11. Crumbed or battered meat and meat alternatives (e.g. fish fingers) and high fat frozen meals (>10g/serve fat)

12. Cakes, muffins, sweet biscuits, high fat savoury biscuits, pies and pastries

13. Snack foods, including chips, savoury crisps, extruded snacks, popcorn, snack bars, muesli bars, sugar sweetened fruit and vegetable products (such as jelly fruit cups, fruit straps) and sugar coated nuts.

14. Fruit juice and fruit drinks

15. Frozen/fried potato products (excluding packet crisps)

16. Full cream milk, yoghurt, custard, dairy desserts (>3g/100g fat) and cheese (25% reduced fat and full fat varieties, and high salt cheese, including haloumi and feta) and their alternatives

17. Ice cream and iced confection

18. Chocolate and confectionery (including regular and sugar-free chewing gum and sugar)

19. Fast food restaurants/meals (include general pizza, burgers, 'healthy' alternatives from fast food restaurants)

20. High fat/sugar/salt spreads (includes yeast extracts, excludes peanut butter), oils, high fat savoury sauces (>10g/100 fat), meal helpers (including stocks, tomato paste) and soups (>2g/100g fat tinned and all dehydrated)

21. Sugar sweetened drinks including soft drinks, cordials, electrolyte drinks and flavour additions e.g. Milo).

22. Alcohol

23. Vitamin and mineral supplements

24. Tea and coffee

25. Supermarkets – advertising mostly non-core foods

26. Supermarkets – advertising mostly core foods

27. Supermarkets – non-specified (generic supermarket ads or not clearly for core or non-core)

28. Baby and toddler milk formulae.

Nutrient Profile Coding

The nutrient profile score of the food and drink shown in the advert was calculated using Department of Health's Nutrient Profile Model.

The calculations were carried out by Dr Rosa Whalen. A breakdown of the nutrient profiling is included in appendix 2.

Nutrient Profile Coding – Exclusions

Adverts that were coded in the following food and drink categories were counted as miscellaneous and not profiled. They were still included in the total sum of food and drink adverts.

22. Alcohol
23. Vitamin and mineral supplements
24. Tea and coffee
27. Supermarkets – non-specified (generic supermarket ads or not clearly for core or non-core food groups)
28. Baby and toddler milk formulae.

Nutrient Profile Coding – Information Sources

Information on nutrient content was taken from the following sources:

- The manufacturers own website (link included on spreadsheet in appendix 2)
- Tesco.com website (link included on spreadsheet in appendix 2)

In some cases the nutrient information per 100g was not available from any of the above sources. An Obesity Health Alliance representative contacted the manufacturer directly to ask for this information. The manufacturers were contacted via website contact forms, head office email address (where available) and via twitter and asked to respond within two weeks. Manufacturers were advised that if no response was received, nutrient information would be taken from another source which may not be as accurate as their own data.

Manufacturer	Product	Response
Aldi	• Chicken en croute	• Information provided by Aldi
Lidl	• British Beef Roasting Joint • Four Cheese Takeaway Pizza • Fillet Steak	• Directed to online nutrient information where information is not provided by 100g. No response received to follow up email.
Asda	• Meat Feast Pizza (made in store)	• Information provided by Asda
McDonalds	• Saver menu chicken burger • Beefburger • Bacon Clubhouse Double Burger	• No response received
Burger King	• Big King Burger	• Product weight information provided – this was used to calculate nutrients per 100g
KFC	• Zinger Mini Fillets Double Bucket	• Directed to online nutrient information where information is not provided by 100g. No

		response received to follow up email.
Pizza Hut	• Pepperoni Pizza	• Directed to online nutrient information where information is not provided by 100g. No response received to follow up email.

Where information was not provided by the manufacturers, nutrient information was taken from other online sources including MyFitnessPal, CalorieLab and FatSecret. We are unable to verify the accuracy of this data. These entries have been highlighted on the spreadsheet in appendix 2.

Nutrient profiling justifications

The information used to profile each advert is included on the table in appendix 2. Where a coding decision was not straightforward (e.g. multiple products were shown or exact product information could not be found) information is provided below on the profile justification.

Multi-products adverts:

In line with previous research[11,12], if more than one food product was shown in the advert, the most dominant one was coded. If equal attention was given to a number of products, the product that was shown first was assessed.

In the case of two adverts it was not possible to identify the dominant or first product as all were displayed on screen for an approximately equal amount of time and shown at the same time (i.e. a table/buffet setting). In these cases we looked for an external source for further information about the most popular/ highly consumed products from that brand. Links to the information source is included in appendix 2.

Takeaway brand adverts:

- JustEat: This advert featured people naming their favourite types of food but did not actually show any food. Therefore it was coded as miscellaneous.
- Hungry House: This advert showed a montage of Chinese takeaway dishes and people eating a range of takeaway foods. Due to the generic unbranded nature of the food shown, it was challenging to profile the foods. Following informal consultation with ASA and academic reviewers we took the decision to code these adverts as HFSS for the following reasons:

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[11] Boyland EJ et al (2011). The extent of food advertising to children on UK television in 2008. *International Journal of Pediatric Obesity.*

[12] Kelly B et al. (2010). Television food advertising to children: a global perspective. *American Journal of Public Health.*

- o Under CAP Guidance[13] a brand advert is likely to be classed as HFSS when it refers to or prominently features a product but does not provide enough information for the audience to identify it as a product that can be nutrient profiled and advertiser does not provide evidence that its range of that type of product is mainly non-HFSS.
- o Based on the foods visible in the advert (crispy duck, prawn toast, battered chicken, spring rolls, burger, chips, chicken wings) and recent research showing that the majority of takeaway meals are excessive for portion size, energy, macronutrients and salt[14] we concluded it was highly unlikely that Hungry House would be able to supply evidence that the range of food shown is mainly non-HFSS.

Limitations

There is very little publically available guidance on how the Nutrient Profile Model is applied so coding of products was based on the research team's understanding of this process and replicated methods used in previously published papers.

Reliable nutrient data was not available for some of the products despite the research team offering companies the opportunity to provide this. This is outlined above and all sources of nutrient information are highlighted in appendix 2.

The report represents a snapshot of advertising shown that may or may not reflect overall advertising exposure around this type of programming or kids' typical viewing patterns. To ensure a robust snapshot we analysed several weeks' worth of data and based the programme selections on objective data of programmes likely to be most popular with children across the study period.

Report Data

The following section provides further detail on the data used in the report.

Total number of adverts in 16 hour study period = 663

Total number of adverts that were categorised as 'food and drink' = 178

Breakdown of total food and drink adverts rated 'less healthy'/ 'healthier' / miscellaneous

	All food and drink adverts	Coronation Street	Hollyoaks	Ninja Warriors	The Simpsons	The Voice
Total food and drink adverts	174	37	40	13	24	60
Total 'less healthy'	102	16	26	1	14	45

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[13] CAP (2017) Identifying brand advertising that has the effect of promoting an HFSS product Advertising Guidance. https://www.asa.org.uk/asset/6B42B9F3-96EC-4A66-A9B50F0E21D845BF/

[14] Jaworowska A, et al. (2014) Nutritional composition of takeaway food in the UK. *Nutrition & Food Science*.

adverts						
Total 'healthier' adverts	30	9	11	4	2	4
Total misc adverts	42	12	3	8	8	11
% of food adverts which are less healthy	58.6	43.2	65	7.6	58.3	75

Frequency and percentage of food adverts broadcast for each food product category across the study period

Food category	Frequency	%
Fast food	62	35.6
Supermarkets – non-specified	24	13.8
Crumbed or battered meat and meat alternatives	17	9.8
High fat/sugar/salt spreads	10	5.7
Low fat dairy	9	5.2
Chocolate and confectionery	7	4
Tea and coffee	6	3.4
Meat and meat alternatives	6	3.4
Fruit juice	4	2.3
Alcohol	4	2.3
Core foods combined	4	2.3
Snack foods	3	1.7
Supermarkets	3	1.7
Baby and toddler milk formulae	3	1.7
Bottled water	3	1.7
High sugar and/or low fibre breakfast cereals	2	1.1
Cakes	2	1.1
Ice cream	1	0.6
Low sugar and high fibre breakfast cereals	1	0.6
Sugar sweetened drinks	1	0.6
Fruits and fruit products	1	0.6
Vegetables	1	0.6

About the Obesity Health Alliance

The Obesity Health Alliance OHA) is a coalition of over 40 leading health charities, medical royal colleges and campaign groups working together to tackle obesity.

The goal of the OHA is to prevent obesity-related ill-health by addressing the influences that lead to excess bodyweight throughout life. We bring together a range of leading organisations with expertise in tackling overweight and obesity.

The OHA was formed in 2015. We support policy-making to tackle the social, economic and cultural factors that contribute to obesity and the inequalities in health caused by obesity.