Breakfast Cereals and Yogurts with Packaging that may Appeal to Children

An Interim Report for the Broken Plate 2022

Action on Salt Action on Sugar

Introduction

Breakfast cereals and yogurts can be nutritious, convenient choices for children, providing a source of key nutrients, vitamins and minerals to the diet. However, many brands on the market, including those marketed to children, are often high in added sugar and salt, with inadequate levels of fibre. The nutritious reputation of these products is mainly linked to fortification of cereals with micronutrients and the calcium content in yogurt or by the addition of milk to cereal. This 'heath halo' hides the reality of the sugar content in such products.

The use of cartoon characters and animations on food and drink packaging is a common marketing practice, used to specifically target children by making products eye-catching and attractive. Research has shown children are much more likely to show a preference for products displaying such animations[1].

There are currently restrictions in place regarding online and television advertising and marketing of foods high in fat, salt, and sugar during peak viewing times for children[2], and incoming restrictions on price and place promotions in 2023, but these restrictions do not currently apply to the packaging of products.

Action on Salt & Sugar have been monitoring the nutritional content of breakfast cereals and yogurts over time, as part of the Food Foundation's 'Broken Plate' Report. This study follows on to identify if there are any further changes in the nutritional profile of these two food categories.

Method

Action on Salt & Sugar collected full nutritional data of breakfast cereals and yogurts with packaging appealing to children, following strict inclusion and exclusion criteria (Figure 1). The majority of data was obtained online via retailer websites, with the exception of Aldi and Lidl which were collected in-store due to limited online information. Data was collected between March and May 2022 and a total of 9 major supermarkets were included: Aldi, ASDA, Lidl, Ocado (which covers Marks & Spencer's), Morrisons, Sainsbury's, Tesco, The Co-operative and Waitrose & Partners.

Figure 1 - Inclusion and Exclusion Criteria for breakfast cereals and yogurts

<table>
<tr><th>Cereals</th><th>Yogurts</th></tr>
<tr><td>
Inclusion:
A. Child themed imagery (such as cartoon characters)
B. Bright colours and animations appealing to children)
C. Brand character's appealing to children (such as Tony the Tiger)
D. Child friendly font (such as balloon letters, comic style)
E. Child friendly media partnerships (such as Disney)
F. Child friendly offers (such as a free game)
G. Child themed language (such as 'made for kids')
H. Child friendly activities (such as word searches on the back of pack)

Exclusion:
A. Animations that are part of company logos
B. Non-child themed lifelike drawings (such as pencil like drawings or sketches)
C. Duplicates of the same product, in but in different packaging sizes
</td><td>
Inclusion:
A. Chilled yogurts with more than 50% dairy or dairy alternative, as defined by retailer's categorisation on their website
B. Small and medium sized yogurt pots that are aimed for children
C. Child themed imagery (such as cartoon characters)
D. Bright colours and animations appealing to children
E. Brand character's appealing to children (such as Peppa Pig)
F. Child friendly font (such as balloon letters)
G. Child friendly media partnerships (such as Disney)
H. Child friendly offers (such as a free game)
I. Child themed language (such as 'made for kids')

Exclusion:
A. Drinking yogurt
B. Ambient yogurt with less than 50% dairy or dairy alternative
C. Animations that are part of company logos
D. Non-dairy puddings e.g. chocolate mousse
</td></tr>
</table>

Products that met the inclusion criteria were assessed against the Government's Front of Pack Nutrition Labelling Guidance[2] to note how many products were high, medium, or low in sugar, salt (breakfast cereals only), and saturated fat (yogurts only). In addition to this, a scoring system was created for fibre (breakfast cereals only) based on previous reports[3] (Table 1).

Table 1 – Nutrition labelling criteria for 100g of food

	Low	Medium	High
Colour Code	Green	Amber	Red

© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818

Saturates	≤1.5g/100g	>1.5g to ≤5.0g/100g	>5.0g/100g
(Total) Sugars	≤5.0/100g	>5.0g to ≤22.5g/100g	>22.5g/100g
Salt	≤0.3g/100g	>0.3g to ≤1.5g/100g	>1.5g/100g
Fibre	≥10g/100g	≥5g to <10g/100g	<5g/100g

Total sugars will be reported on throughout this document. A proportion of sugars present in yogurts will be naturally occurring within milk and dairy products (lactose), however current nutrition labelling displays 'total sugars' only, and does not differentiate between these, and free sugars. Please note, the agreed figure for natural Greek yogurt and plain fromage frais is 3.8g/100g of natural sugars (from lactose). [10]

Results

1. Breakfast Cereals

A total of 137 breakfast cereals met the inclusion criteria (compared to 126 products in 2021), with supermarket own-label products dominating the market space (89 retailer and 48 manufacturer).

Table 2 – Average energy, sugars, salt and fibre content of breakfast cereals; split by retailer and manufacturer

Retailer/ Brand	(n)	Average Energy kcal/100g (range)	Average Sugars g/100g (range)	Average Salt g/100g (range)	Average Fibre g/100g (range)
Brand	48	400 (357-459)	20.1 (2.2-43.6)	0.47 (0.0-1.70)	7.5 (2.0-21.4)
Retailer	89	389 (333-459)	17.7 (0.6-28.5)	0.36 (0.01-0.93)	5.6 (1.1-15.4)
Total	**137**	**393 (333-459)**	**18.5 (0.6-43.6)**	**0.40 (0.00-1.70)**	**6.3 (1.1-21.4)**

Sugar

The average sugar content of breakfast cereals with packaging appealing to children was 18.5g/100g (Table 2) (6g per 30g suggested portion), a slight increase in overall sugar content compared to 2021.

Retailer own-label products were lower in sugar compared to branded companies (17.7g/100g vs 20.1g/100g). (Table 2). The brand with the lowest sugar content was Troo, followed by Lizi's and Rude Health (Table 3). The worst offenders were Malt O Meal and General Mills cereals.

Table 3. Average sugar content of breakfast cereals produced by different food companies; colour coded against front of pack guidance.

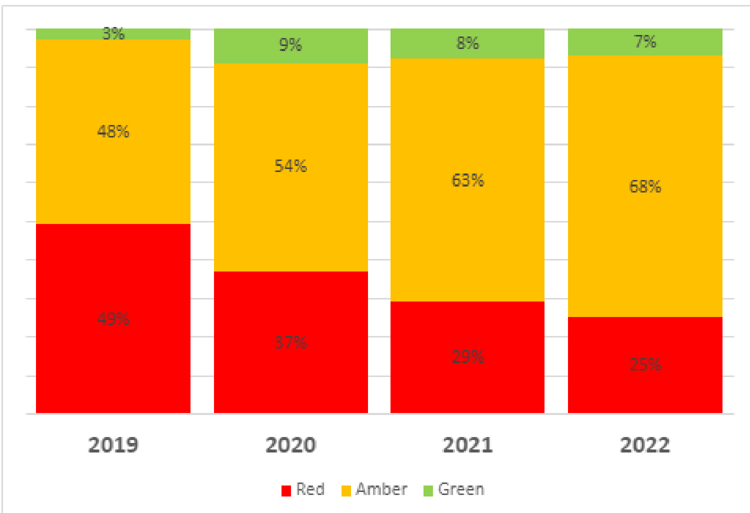
Food Company	(n)	Average Sugars g/100g
Malt O Meal	1	41.0
General Mills	3	32.5
Mornflake	1	28.9
Nature's Path	2	28.5
Oreo Cereals	1	27.0
Nestle	1	22.3
Monster Brands	1	22.0
Nestle	10	21.8
Kellogg's	14	20.8
Lidl	13	20.1
Aldi	25	18.6
Weetabix	5	18.2

Action on Salt Action on Sugar
© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818

Sainsbury's	14	18.2
ASDA	13	16.6
Morrisons	6	16.0
Tesco	18	15.5
Bear	2	12.0
Rude Health	1	11.9
Lizi's	2	11.6
Troo	4	2.9

Despite this, the number of products considered high (red) in sugar has decreased by 4 percentage points to 25% compared to 2021 (Figure 2).

Figure 2 – Comparison of sugar content in breakfast cereals from 2019-2022; according to nutrition labelling criteria



Salt

The average salt content of breakfast cereals with packaging appealing to children was 0.41g/100g. This is a slight improvement to overall salt content in 2021.

Retailer own-label cereals were lower in salt overall compared to branded companies (Table 2). *Malt O Meal Marshmallow Mateys* remains the worst offender and the only breakfast cereal with child friendly packaging to be high in salt, with a total salt content of 1.7g salt/100g (Table 4). The majority of cereals (93%) achieve the maximum salt target for 2024 (0.9g/100g), with the exception of 10 products.

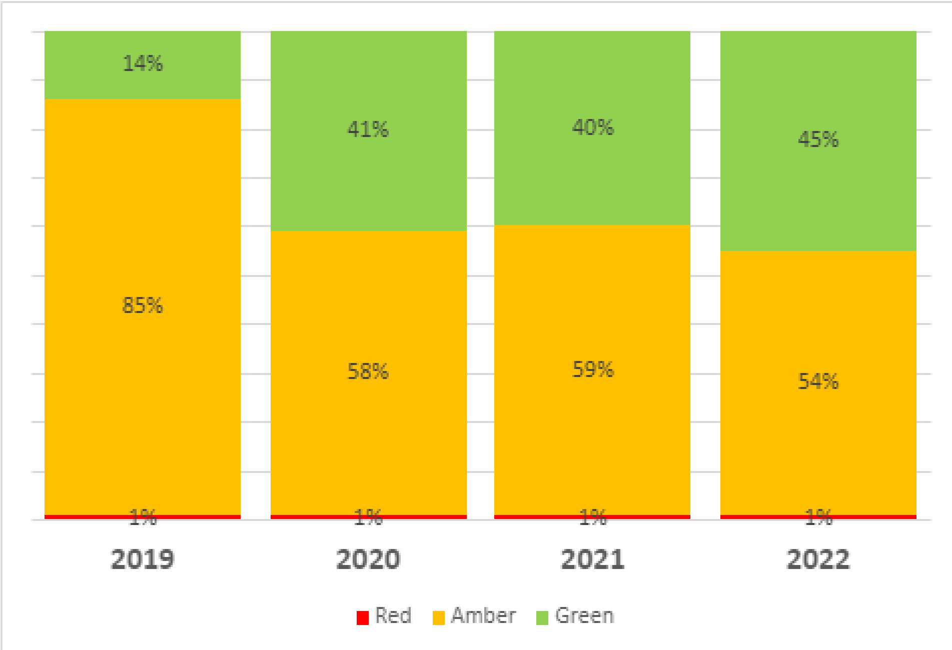
Table 4. Average salt content of breakfast cereals produced by different food companies; colour coded against front of pack guidance.

Food Company	(n)	Average Salt g/100g
Malt O Meal	1	1.7
Nature's Path	2	0.7
Kellogg's	14	0.7
Nestle	1	0.7
General Mills	3	0.6
Oreo Cereals	1	0.5
Lidl	13	0.5
Mornflake	1	0.5
Nestle	10	0.4
Sainsbury's	14	0.4
Morrisons	6	0.4
Aldi	25	0.4
ASDA	13	0.3
Tesco	18	0.3
Weetabix	5	0.2
Lizi's	2	0.1
Troo	4	0.1
Bear	2	0.1
Monster Brands	1	0.0
Rude Health	1	0.0

The proportion of products considered low in salt has increased 5 percentage points to 45% compared to 2021 (Figure 3).

© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818

Figure 3 – Comparison of salt content in breakfast cereals from 2019-2021; according to nutrition labelling criteria



Fibre

The average fibre content of cereals included in this survey has remained unchanged since 2021, providing only 6.3g/100g.

Retailer own-label cereals were lower in fibre overall compared to branded companies (Table 2). The brand with the highest fibre content was Troo, followed by Weetabix and Nestle (Table 5). The worst offenders were Mornflake, Oreo Cereals, Malt O Meal and Tesco.

Table 5. Average fibre content of breakfast cereals produced by different food companies; colour coded against front of pack guidance.

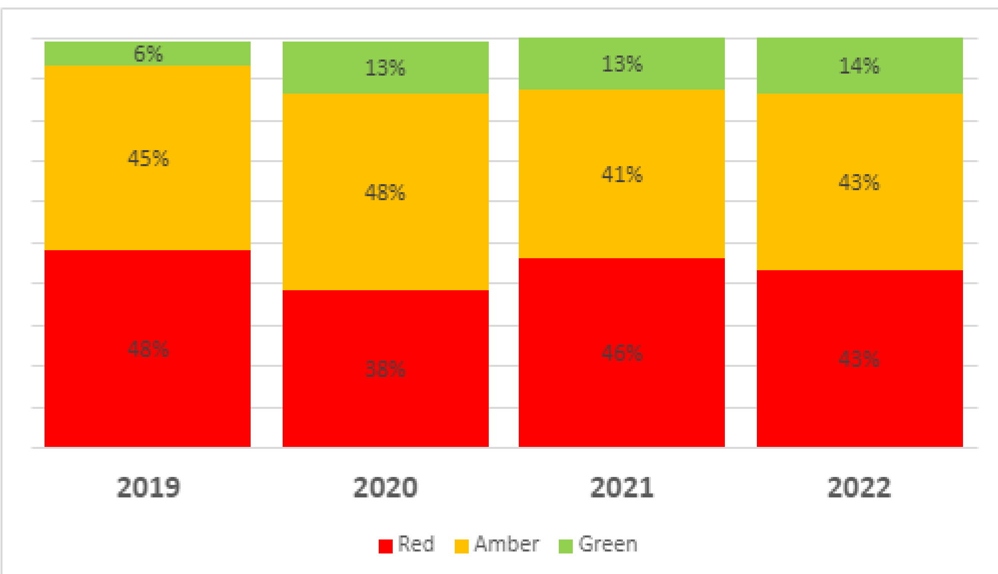
Food Company	(n)	Average Fibre g/100g
Mornflake	1	2.8
Oreo Cereals	1	3.9
Malt O Meal	1	4.8
Tesco	18	4.8
Morrisons	6	4.9
ASDA	13	4.9
Sainsbury's	14	5.1
General Mills	3	5.4

© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818

Kellogg's	14	5.6
Lidl	13	5.8
Nestle	10	6.2
Lizi's	2	6.7
Nature's Path	2	6.7
Bear	2	7.0
Aldi	25	7.1
Rude Health	1	8.2
Monster Brands	1	8.4
Nestle	1	8.5
Weetabix	5	10.0
Troo	4	18.9

Over 4 in 10 (43%) cereals were low in fibre, compared with only 14% which were considered high in fibre (Figure 5).

Figure 5 – Comparison of fibre content in breakfast cereals from 2019-2021, according to nutrition labelling criteria



2. Yogurts

A total of 90 yogurts met the inclusion criteria (down from 100 in 2021) and were predominantly branded products (37 retailer and 53 manufacturer).

Table 6. Average sugars and saturated fat content of yogurts with packaging that appeals to children

Retailer/ Brand	(n)	Average Energy kcal/100g (range)	Average Saturated Fat g/100g (range)	Average Sugars g/100g (range)
Brand	53	91.2 (63–171)	1.9 (0.3-3.3)	9.3 (4.8-13.8)
Retailer	37	89 (65-104)	1.3 (0.2.1)	9.0 (3.3-12.5)
Total	**90**	**88** (63-171)	**1.7 (0.3-3.3)**	**9.2 (3.3-13.8)**

Sugar

The average sugar content of children's yogurts was 9.2g/100g (7.4g per suggested portion), a marginal increase from 2021 (9.1g/100g). There were little differences between retailer own-label and branded food companies (Table 6).

The brand with the highest average sugar content was Nestle, followed by Kerry Dairy and Lidl (Table 7).

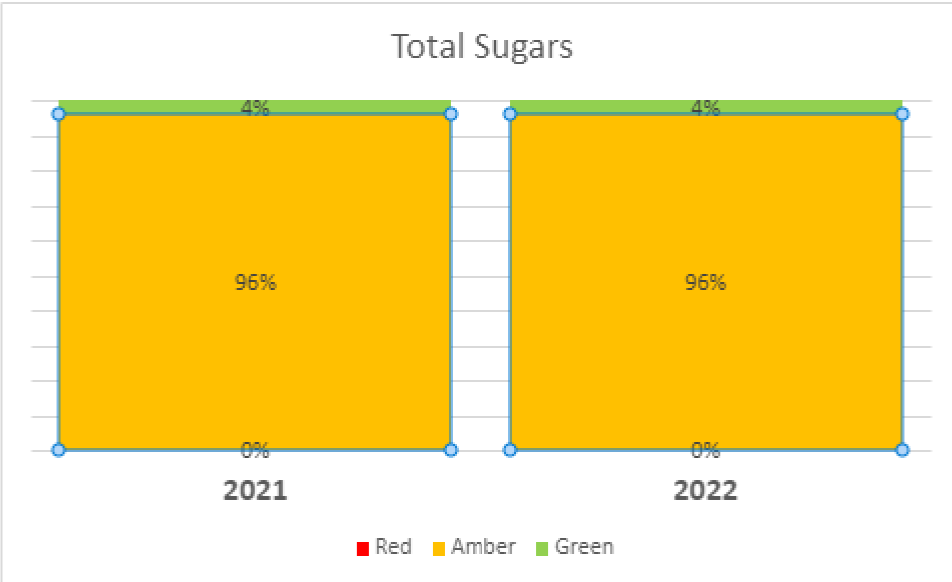
Table 7. Average sugar content of yogurts produced by different food companies; colour coded against front of pack guidance.

Food Company	(n)	Average Sugars g/100g
Nestlé	7	10.8
Kerry Dairy	2	10.3
Lidl	13	10.3
Yoplait	26	9.9
Aldi	10	9.3
Sainsbury's	2	9.1
Yeo Valley	10	8.4
The Collective	4	8.0
Morrisons	1	7.9
M&S	1	7.6
Asda	8	7.2
Tesco	2	7.2
Fage	2	6.3
Biotiful	2	6.1

© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818

When reflected against the government front of pack nutrition labelling guidance, no changes have been made for sugars (Figure 6), with only 4% of all children's yogurts qualifying for a green 'low' sugar label.

Figure 6. The proportion of yogurts marketed at children categorised as high, medium and low in sugar, 2021-2022



Saturated Fat

The average saturated fat content of children's yogurts was 1.7g/100g (1.4g per suggested portion), a slight reduction since 2021 (1.8g/100g).

Retailer own-label products were slightly lower in saturated fat compared to branded companies (1.3g/100g vs 1.9g/100g) (Table 10). The brand with the highest average saturated fat content was Kerry Dairy, followed by Fage and Nestle (Table 8).

Table 8. Average saturated fat content of breakfast cereals produced by different food companies; colour coded against front of pack guidance.

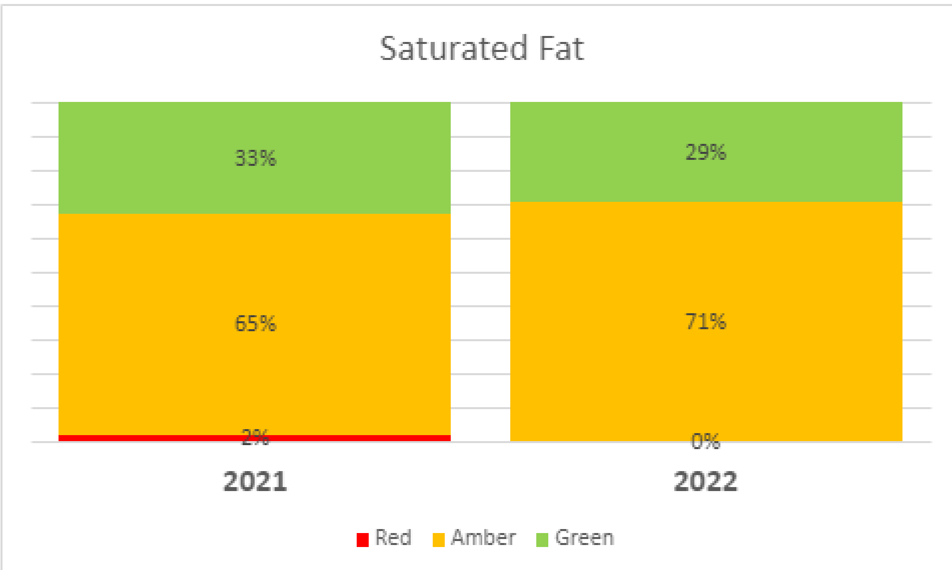
Food Company	(n)	Average Saturated Fat g/100g
Kerry Dairy	2	2.9
Fage	2	2.8
Nestlé	7	2.0
Yeo Valley	10	2.0
The Collective	4	2.0
Yoplait	26	1.7
Biotiful	2	1.7
Morrisons	1	1.7

Action on Salt Action on Sugar
© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818

Lidl	13	1.6
Aldi	10	1.6
Tesco	2	0.9
Sainsbury's	2	0.8
M&S	1	0.8
Asda	8	0.7

There are now no children's yogurts that would qualify for a red label for saturated fat, but the proportion of low (green) saturated fat products has reduced by 4 percentage points to 29% since 2021 (Figure 7).

Figure 7. The proportion of yogurts marketed at children categorised as high, medium and low in saturated fat, 2021-2022



© Action on Salt and Action on Sugar, July 2022

3. Direct Comparison of Products over Time

This 2022 report includes 137 cereals that meet the inclusion criteria, compared to 126 in 2021, 120 in 2020, and 77 in the 2019 report. Ninety yogurts met the inclusion criteria in 2022, compared to 113[1] in 2021. The difference in the total number of cereals and yogurts surveyed each year is likely a result of; new product development, a change in product packaging which falls in or out of scope of the inclusion criteria, and availability in-store and online at the time of data collection.

Every effort was made to collect comprehensive data for direct comparisons over the years.

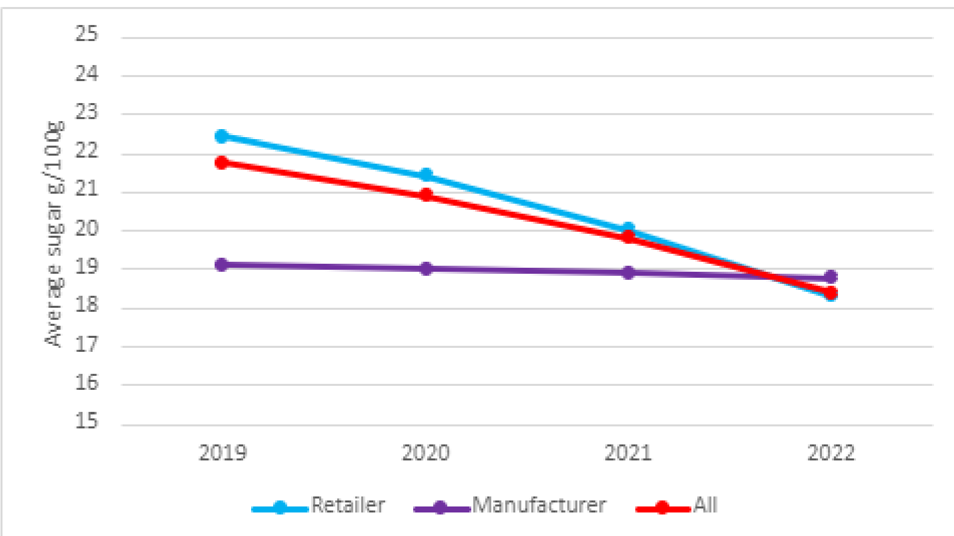
Cereals 2019-2022

Out of the 137 cereals included in this study, 55 were matched to cereals across all 4 years (2019-2022). The average sugar, salt, and fibre have been compared to identify any changes across this time.

Sugar

The average sugar content has reduced from 21.8g/100g to 18.4g/100g (**15% decrease**). These reductions were largely seen in retailer own-label cereals compared to branded companies (Figure 8). Those with more than 20% reductions in sugar include Morrisons, Tesco and Asda.

Figure 8. Sugar content per 100g in comparable products over time, 2019-2022.



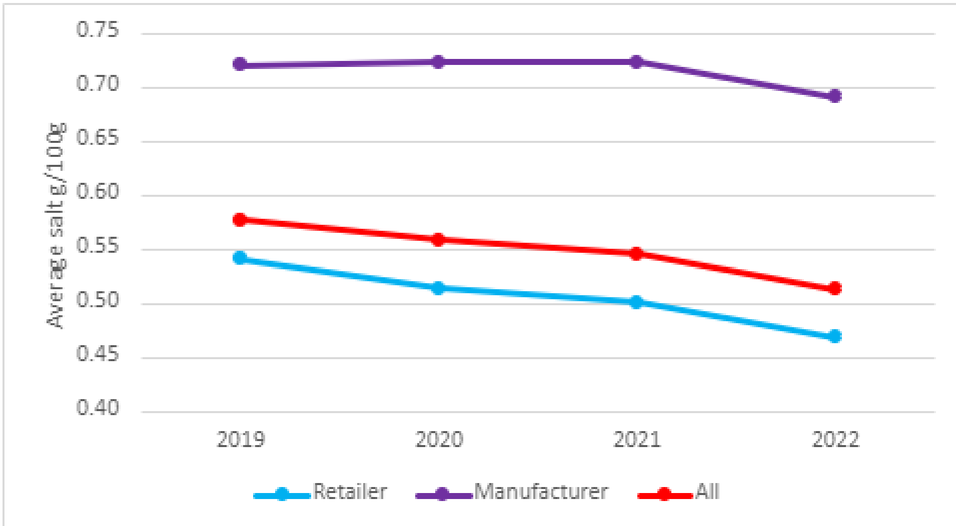
[1] 113 different flavour yogurts

© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818

Salt

The average salt content has reduced from 0.58g/100g to 0.51g/100g (**11% decrease**). Again, greater progress can be seen in retailer own-label cereals compared to branded companies (Figure 9). Those with more than 20% reductions in salt include Nestle, Asda, Morrisons and Tesco.

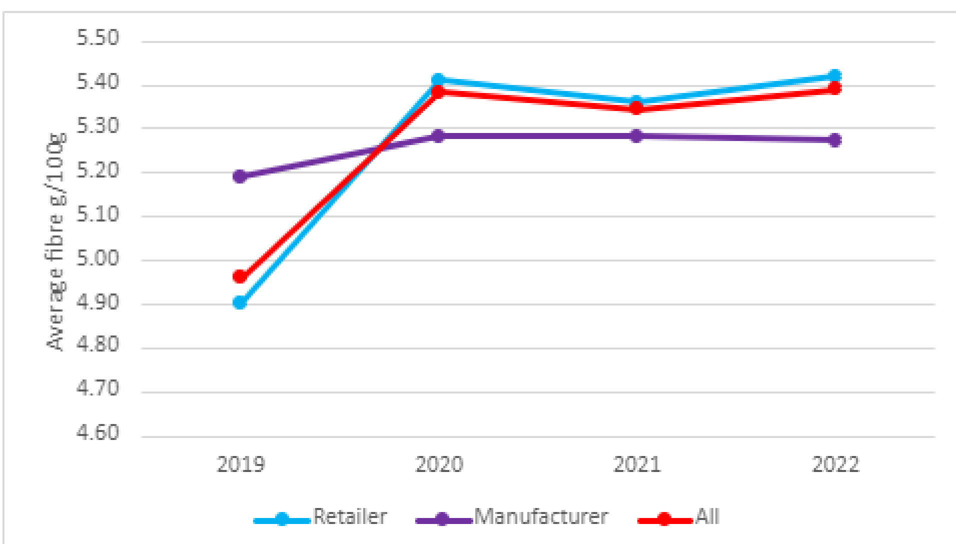
Figure 9. Salt content per 100g in comparable products over time, 2019-2022.



Fibre

The average fibre content has increased slightly from 5.0g/100g to 5.4g/100g (**9% increase**). Greater progress can be seen in retailer own-label cereals compared to branded companies (Figure 10). Tesco have increased their average fibre content substantially (46%), followed by Aldi and Morrisons.

Figure 10. Fibre content per 100g in comparable products over time, 2019-2022.



Yogurts 2021-2022

Out of the 90 yogurts included in this study, 75 were matched to yogurts included in 2021. The average sugar, salt, and fibre have been compared to identify any changes across this time.

Sugar

The average sugar content has reduced marginally from 9.5g/100g to 9.3g/100g (**2% decrease**). This is predominantly a result of Yeo Valley reducing sugar on average from 9.1g/100g to 8.4g/100g.

There were some substantial reductions in sugar across some products, with 7 yogurts reducing their sugar content by more than 10%:

- Lidl Milbona Squeezy Fromage Frais Strawberry reduced sugar by 30% (14.1g → 9.8g/100g)
- Yeo Valley Little Yeos Organic Fruity Favourites Strawberry/Peach/Apricot/Raspberry reduced sugar by 16% (9.7 → 8.1g/100g)
- Yoplait Marvel Kitchen Avengers Strawberry & Raspberry Pouches reduced sugar by 14% (13.2g → 11.3g/100g)
- Tesco Fromage Frais Raspberry reduced sugar by 12% (7.6g → 6.7g/100g)

Saturated Fat

The average saturated fat content has not changed since 2021, remaining at 1.7g/100g. Only 3 products had more than 10% reductions in saturated fat:

- Tesco Fromage Frais Strawberry reduced saturated fat by 20% (1 → 0.8g/100g)
- Aldi Brooklea Little Delights Fromage Frais Strawberry reduced saturated fat by 11% (1.8g → 1.6g/100g)
- Lidl Milbona Squeezy Fromage Frais Strawberry reduced saturated fat by 10% (2g → 1.8g/100g)

© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818

Data Limitations

The information provided in this report is product level data and has not been matched with sales data, due to limited access to resources.

The data was predominantly obtained online and collected manually. Steps were taken to ensure accuracy throughout, with thorough spot checking to minimise inputting errors. It is difficult to determine the accuracy of data presented online and whether it is regularly updated by the manufacturers or retailers, however nutrition or ingredient information provided by a manufacturer or a retailer is under a legal obligation to be accurate and not misleading.

Where there was conflicting information or suspected inaccuracies from online sources, then information was verified in store. Another limitation to note is the exclusion of products marked 'out of stock' online. Without an alternative source to verify if the product was discontinued or temporarily out of stock, it was assumed that the online market is reflective of what is available in store, and therefore was assumed they were no longer available.

Conclusion

We live in an environment that makes it easy for us to gain weight, and very difficult to lose it. The more socially deprived in particular are more at risk of suffering from ill health, with foods high in fat, salt and sugar typically being more affordable. Young people from poorer backgrounds are more likely to have obesity, consume a range of less healthy products and be exposed to more adverts promoting unhealthy food. It is therefore imperative, if not a moral duty, that we all do our upmost to ensure children have access to healthier affordable food, to give them the best start in life.

For the fourth year running, we have been monitoring the nutritional content of food products aimed for child consumption, and calling for reduced levels of salt and sugar and improved marketing practices. Evidence shows that bright, animated packaging that appeals to children can influence food preferences and consumption, which remains an issue as these products often contain many added sugars. Over the years many companies have committed to removing cartoon characters off packaging, but this report shows that animations on packaging is still very much common practice.

Supermarket own label cereals score nutritionally more favourably, with greater reductions in both salt and sugar being made by retailers. This demonstrates that there are indeed technical solutions to reformulation, with great success. But whilst this is promising news, it is the branded cereals that often take pride of place in our kitchen cupboards. Kellogg's are the most popular cereal brand in the UK, and represent nearly a third of the global retail value, with Nestle and Weetabix following close behind. Reformulation of these more popular products will have the greatest impact on public health, but unfortunately many are falling short of the recommendations.

A level playing field is urgently needed to give our future generations the best possible start in life. We need more responsible marketing of products to prevent pester power of unhealthy foods, coupled with continual reductions in salt, sugar and saturated fat, and increased fibre. Now more than ever we need to provide children with healthy affordable food that will help them thrive, not set them on course for health problems later down the line.

About us

Action on Salt and Action on Sugar are groups concerned with salt and sugar and its effects on health, supported by 24 expert scientific members. Action on Salt and Action on Sugar are successfully working to reach a consensus with the food industry and Government over the harmful effects of a high salt and sugar diet and bring about a reduction in the amount of salt and sugar in processed foods as well as added to cooking, and at the table.

References

[1] McGale LS, Grovenor Halford JC, Harrold JA, Boyland EJ. The Influence of Brand Equity Characters on Children's Food Preferences and Choices. The Journal of Pediatrics, 2016. 177:33-38 https://doi.org/10.1016/j.jpeds.2016.06.025.

[2] Department of Health. (2016). Guide to creating a front of pack (FOP) nutrition label for pre-packed products sold through retail outlets. Retrieved from: https://www.food.gov.uk/sites/default/files/media/document/fop-guidance_0.pdf

[3] The Food Foundation, The Broken Plate 2021 https://foodfoundation.org.uk/publication/broken-plate-2021

© Action on Salt and Action on Sugar, July 2022
Charity Registration No. 1098818